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Field investigation of spalling in bridge decks with partial-depth precast concrete panel systems using non-destructive testing

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FIELD INVESTIGATION OF SPALLING IN BRIDGE DECKS WITH PARTIAL-DEPTH PRECAST CONCRETE PANEL SYSTEMS USING NON-DESTRUCTIVE TESTING

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ABSTRACT

This study involved the investigation of the causes of spalling observed in several partial-depth precast prestressed bridge decks in the state of Missouri. Recently it has been observed that several bridges in Missouri with this type of construction have experienced spalling of concrete at the edges of the panels revealing an extreme condition of corrosion in the prestressing tendons, some to the point of rupture. Ground penetrating radar (GPR), which has been shown to be successful in bridge deck evaluation, was used to determine the relative condition of the prestressing tendons as well as the relative condition of the concrete throughout the deck in order to identify areas of cracking and corrosion. Particular techniques were used in an attempt to identify areas of delamination at the interface between the precast panels and cast-in-place topping slab, namely the acquisition of data from both the top and bottom deck surfaces as well as specialized data interpretation techniques. Core control and visual inspection were utilized to interpret and validate the GPR data. Half-cell, resistivity and rebound hammer testing was performed on bridge deck panels to determine the corrosion levels of the prestressing strands and material properties of the panels. Findings indicate that spalling in the PPC panels is the result of the penetration of water and chlorides through the reflective cracking in the CIP topping, to the interface between the CIP topping and the PPC panels, then through the PPC panels to the prestressing tendons located near the panel joints. Increased crack control in the CIP topping delays the onset of spalling at the panel joints. Most deterioration is occurring near the area of reflective cracking in the CIP topping and not in the area of concrete over the middle of the panels. Some delamination is occurring at the CIP topping and panel interface.

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NOMENCLATURE

Symbol	Description
M_u	Factored moment at section
M_n	Nominal flexural strength
$M_{service}$	Unfactored moment at section
φ	Strength reduction factor
f'_c	Specified compressive strength of concrete
L_n	Length of clear span measured face to face of supports

1. INTRODUCTION

Precast-prestressed concrete panels are commonly used in bridge deck construction and repair to speed the construction process of concrete bridge decks. The Missouri Department of Transportation (MoDOT) has 10,335 structures in its bridge inventory, and 1,712 of those bridges contain precast-prestressed 3-3.5 in. thick deck panels that serve as stay-in-place (SIP) formwork for a 5-5.5 in. thick cast-in-place (CIP) slab. The precast-prestressed concrete (PPC) panels also serve a structural entity in the bridge deck. Traditionally, these panels are reinforced with low-relaxation, seven-wire steel prestressing strands oriented perpendicular to the traffic direction along with mild steel temperature and shrinkage reinforcement.

It was recently observed that some of these bridges have experienced rusting of embedded steel reinforcement and concrete spalling issues in the PPC deck panels. The plausible reasons for spalling observed in many bridges currently in service likely include corrosion of the steel in the panels due to use of deicing salts, permeability/cracking in the panels, and inadequate concrete cover. Corrosion of steel reinforcement can be detrimental as it can result in shorter life spans for the deck panels. The goal of this research is to investigate the cause(s) of the spalling problem through investigation of existing bridge structures containing the partial-depth, PPC bridge deck panels.

1.1. PARTIAL-DEPTH PRECAST PRESTRESSED CONCRETE PANELS AS STRUCTURAL FORMWORK FOR BRIDGE DECKS

A common type of bridge deck used in Missouri within the past 30 years consists of a 3 in. thick precast-prestressed concrete (PPC) panel that acts as formwork and is composite with a 5.5 in thick cast-in-place (CIP) topping slab. The PPC panels are placed side-by-side on steel or prestressed concrete girders so that the prestressing steel is oriented perpendicular to the traffic flow. An example cross section of these bridge decks is shown in Figure 1.1. The prestressing tendons in the precast panels serve as the main reinforcement for the positive moment regions in the deck slab, and additional reinforcing steel is placed in the CIP topping for the negative moment regions. The joint

between two adjacent panels (perpendicular to the direction of traffic) is termed a "panel joint."

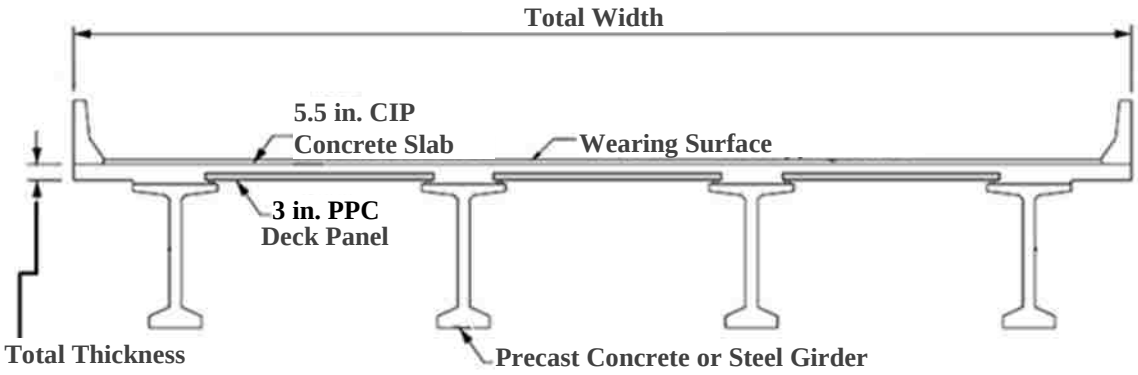

Figure 1.1: Partial-depth PPC panel bridge deck cross-section

1.2. PROBLEM DEFINITION

Recently, it has been observed that several bridges in Missouri with this type of construction have experienced spalling of concrete at the bottom of panel joints.

Figure 1.2 shows examples of the spalling observed. As can be seen in

Figure 1.2, the spalling condition has resulted in exposed prestressing tendons as well as mild reinforcing on the ends of the partial-depth PPC panels. The tendons exhibit a large degree of corrosion, some to the extent of rupture.

Figure 1.2: Spalled sections of concrete at various panel joints

1.3. SCOPE AND OBJECTIVES

The work included in this thesis is a portion of the MTI/MoDOT Collaborative Structures Research Program (2008-2010) Project 1B: Spalling Solution of Precast-Prestressed Bridge Decks. Section 1.3.1 explains the scope and objectives of the Project 1B group research work, and Section 1.3.2 explains the scope and objectives of this thesis work. The Project 1B group research work was ongoing at the time this thesis was completed.

1.3.1. Project 1B Scope and Objectives. Project 1B includes the investigation of spalling in bridge decks constructed with partial-depth PPC panel systems. The project objectives are to investigate the causes of spalling in the precast-prestressed panels and cost-effective mitigation solutions for existing bridge decks, as well as review improved design options for new construction. Validation of the efficiency of each proposed systems is conducted through fundamental laboratory studies and numerical simulations using finite element modeling. The scope of work for the project includes the following items:

1. Document the nature and extent of the spalling problem in MoDOT's bridge inventory through field survey and design review, identify possible causes of the problem, evaluate the potential safety and of the spalling observed, and develop mitigation techniques for in-service bridges experiencing significant spalling.
2. Develop cost-effective, alternate solutions to take advantage of advanced materials and designs that have become available since the first precast-prestressed panel system was designed and implemented.
3. Design, fabricate, and test at least two types of precast concrete panels such that their performance can be thoroughly investigated and validated under simulated service loading.
4. Develop design specifications and performance criteria for the design of FRP-reinforced deck panels.

1.3.2. Thesis Work Scope and Objective. The objective of this thesis work was to determine causes of spalling in the PPC panels through field investigation of existing bridge structures using non-destructive testing (NDT). This research is limited to the investigations of existing bridges using partial-depth PPC panels in the state of Missouri.

The scope of work included the investigation of MoDOT's bridge inventory through field investigations and design review to identify possible causes of the spalling problem and evaluate the potential safety of bridge decks with panels exhibiting the spalling problem. The following research tactics were performed as part of this thesis work.

1. A questionnaire was developed and delivered to 52 different state transportation agencies to investigate the different designs of PPC panel bridge decks, existing issues the panel decks may be exhibiting, and repair methods for these issues (Section 2.1).
2. An analysis was performed to determine the number of tendons that could rupture in the bridge deck before the bridge deck became structurally inadequate according to MoDOT's design specifications and before flexural failure of the bridge deck (Section 2.2).
3. An extensive literature review involving the different deterioration types in bridge decks and numerous NDT methods to detect such deterioration was completed (Sections 2.3 and 2.4).
4. Extensive field investigations were performed on various bridge decks using in-depth visual inspections and NDT to comprehend fully and define accurately the cause of the spalling problem (Sections 3-4).

2. BACKGROUND

Bridges connect the network of highways used for transporting supplies, people, and goods. These structures see multiple fatigue loadings and harsh environmental conditions. Harsh conditions continuously work toward degrading concrete and reinforcement in the bridge. The bridge component most vulnerable to these conditions, however, is the bridge deck. Bridge decks constructed from properly built, full-depth CIP slabs can last over 50 years when correct maintenance and repair methods are completed. To decrease formwork time for full-depth CIP decks, new formwork methods have been developed. One method developed was a partial-depth PPC panel that serves as SIP formwork. This type of formwork has gained in popularity over the past 30 years. Since the 1980's, Texas, for example, has constructed approximately 85% of its bridge decks using the partial-depth PPC panels (Merrill 2002). Because of its popularity, many state agencies have used the formwork and developed many different designs in the process. A survey was sent out to different state agencies to investigate the different designs of PPC panel bridge decks, existing issues the panel decks may be exhibiting, and repair methods for these issues (Section 2.1).

Currently most PPC panel bridge decks in Missouri are less than 30 years old, but there has been significant deterioration in these bridge decks that would suggest their service life would be less than that of a full-depth CIP deck. Deterioration, such as spalling and corrosion of structural steel, can result in a huge loss of structural capacity. To gain a better understanding of this capacity loss, Section 2.2 discusses the amount of structural capacity lost as tendons in the PPC panels rupture.

Finally, to gain a better understanding of the Missouri bridge deck spalling problem and its causes an extensive literature involving the different deterioration types in bridge decks and numerous NDT methods to detect such deterioration was completed (Sections 2.3 and 2.4)

2.1. INVESTIGATION OF OTHER AGENCY SYSTEMS

As part of this investigation, 52 different transportation agencies were surveyed to determine the extent of the use of partial-depth PCC panels and compare the behavior of these systems under other conditions. Results of this survey are described in the following sections. Each agency was given six months to respond.

2.1.1. Methodology and Description. The survey consisted of 20 questions divided into four separate sections. The first section requested design guidelines and specifications for construction of precast-prestressed concrete panels if available by the agency. The second section questions were used to determine the type of bridge decks in current use by the agency. Section three requested information about current problems and mitigation methods of partial or full-depth panels (if used). The final section requested any information the agency may have available related to this subject. (See Appendix A for a copy of the survey.)

2.1.2. Results. The survey yielded 29 out of 52 responses. Thirteen of 29 states responding reported no or minimal use of precast-prestressed bridge deck panels (full or partial-depth). Four agencies reported interest in the implementation of these panels systems, but needed more research or an increase in familiarity of the systems before implementation was possible. In contrast, six agencies have used precast panel systems in their bridge decks but in a very limited number of bridges. For instance, Arkansas has used partial-depth PPC panels on one bridge. This bridge is a newly constructed cable stay bridge and was not yet open to traffic at the time of the survey. Of the 16 agencies that reported use of prestressed panel systems, Nebraska and Alaska were the only two states that predominately use full-depth precast panels.

Agencies that reported use of the precast-prestressed paneling systems were asked to record any deterioration problems observed in these bridge decks. Figure 2.1 shows a summary of the state agencies that use precast panels and the main problems they reported.

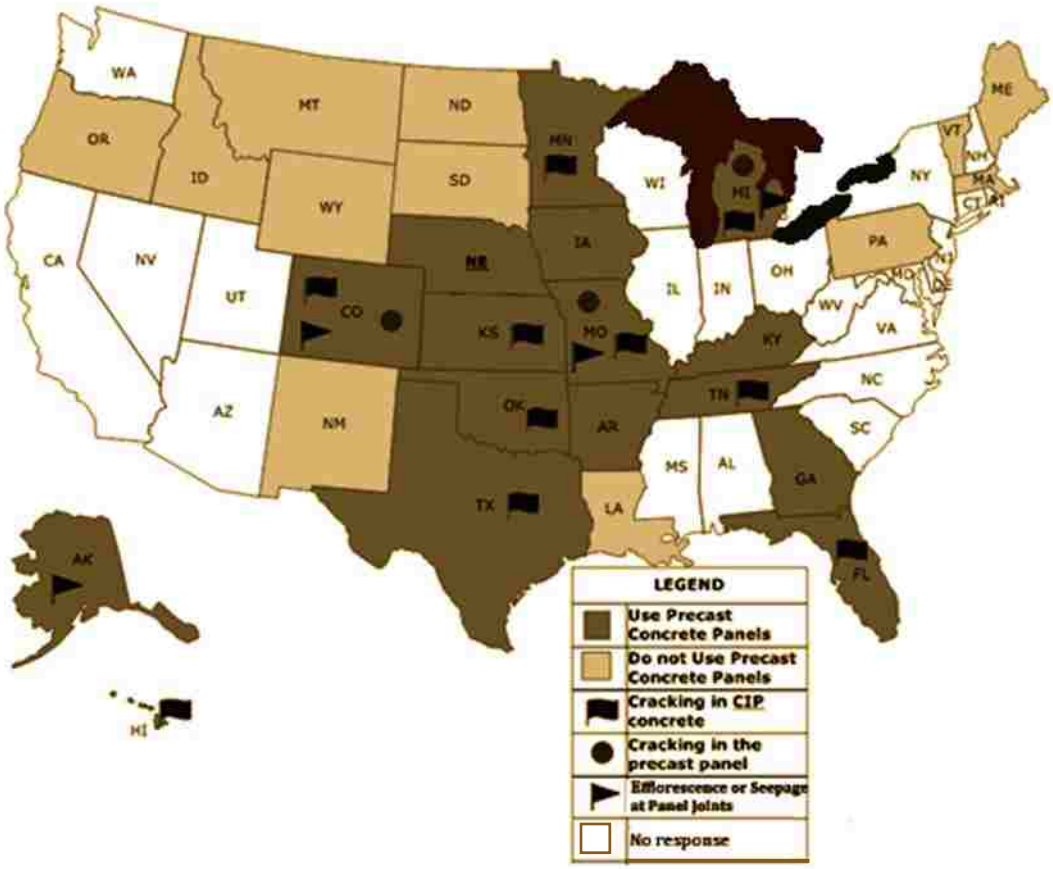

Figure 2.1: Precast concrete bridge deck system usage and problems reported

Many different designs and specifications exist for partial-depth precast panel bridge systems. For this reason, agencies were asked to provide various system parameters and specifications, such as panel thickness and reinforcement spacing. Table 2.1 summarizes information received from the different agencies pertaining to the age, design and deterioration of these systems. From the table it can be seen that these partial-depth panels range in age from 5-40 years and in thickness from 3-6 in. The specified 28-day compressive strengths of panel concrete range from 4000-10,000 psi, while CIP topping concrete compressive strengths range from 3500-5800 psi. Ten states use more precast concrete girders than steel girders, and every state that reported curing methods use moist curing, waterproof cover, liquid membrane curing or a combination of two of these curing methods. Eight states reported transverse cracking and six states longitudinal

cracking as problems observed in bridge decks with these systems. The remaining reported problems, such as panel cracking and efflorescence at panel joints, indicated problems seen in the panel portion of the bridge deck. According to the survey results, Missouri has the second oldest bridges with partial-depth PPC panels and is the only state besides Kansas that specifies a panel thickness of 3 in. Both panel and CIP topping concrete strengths specified in Missouri fall between the ranges of other states.

Most reported bridges in Missouri experiencing the spalling problem are bridges constructed with steel girders, so a question pertaining to the percent of bridges with steel girders was included in the survey. Missouri currently has approximately 470 bridge decks with steel girders that use the partial-depth PPC panels in its bridge inventory. In contrast, approximately 1240 bridge decks constructed with the PPC deck panels use prestressed concrete girders. Six different states use a combination of both steel and precast concrete girders for the precast paneling systems; however, only one (Alaska) reported the percentage of steel girders higher than the percentage of prestressed concrete girders. Steel girders are more ductile than prestressed concrete resulting in more deflection in the bridge deck. The differential deflection could be a contributor to the reflective cracking seen over the panel joints in the bridge decks; however, this was not proven in this research.

Table 2.1 also presents the problems reported. Note that problems reported in Missouri bridges consist of every problem listed on the table. The most common problems reported in these bridge decks are transverse cracking (eight states) and longitudinal cracking (six states). Of the states that reported use of partial-depth bridge deck systems, Hawaii, Georgia, Kentucky, and Iowa were the only states that did not report problems. According to the National Climate Data Center, Georgia and Hawaii averages less than two inches of annual snow and ice, and Kentucky averages 17 inches. In comparison, Missouri averages 20 inches of snow and ice on an annual basis (NCDC 2008). The lower snowfall averages in Kentucky, Georgia and Hawaii result in fewer deicing salt encounters on bridge decks in these locations. Iowa, however, has a greater annual average snowfall (35 inches) than that of Missouri, thus it can be expected to have more deicing occurrences per year.

Table 2.1: Summary of partial-depth panel specifications (Entire results are compiled in Appendix A)

State	PPC Panel			CIP Topping		Age (years)	Girder Type (%)		Problems Observed
	Thickness (in)	Reinforcement Type	f'c (psi)	Curing Method	f'c (psi)		Steel	Precast	
Kansas	3-3.5	PR, EC	4000	MC	4000	20	5	10	TC,LC
Florida	NR	PR	NR	NR	NR	40	0	100	LC
Minnesota	3.5	PR,EC,WWR	6000	MC	4000	8	0	100	TC,LC
Texas	4	PR	5000	MC,WC	4000	25	5	95	TC,LC
Oklahoma	4	PR	5000	MC	4000	15	50	50	TC
Tennessee	3.5-4	PR	4000	MC,LM	4000	33	30	50	TC
Arkansas	NR	EC	5800	MC	5800	0	100	0	None
Hawaii	3.5	PR,MR	6000	MC,LM	4000	14	0	100	None
Michigan	NR	EC	4000	MC	4000	NR	0	100	TC,LC,PC,SJ
Iowa	3.5	PR,EC,MR	10000	WC	3500	25	20	80	None
Georgia	6	PR,MR	5000	MC,WC	3500	28	0	100	None
Missouri	3	PR	6000	MC,LM	4000	35	30	70	TC,LC,PC,SJ, EJ,RS,CS,CR
Kentucky	NR	PR,EC		MC	5000	10	100	0	None
Colorado	NR	PR,MR	5000	LM,WC	5000	16	10	90	TC,PC,SJ,EJ

PR= Prestressing reinforcement, EC= Epoxy-coated reinforcement, WWR=Welded wire reinforcement, MR= Uncoated mild reinforcement, LC= Longitudinal cracking, SJ= Seepage at panel joints, RS= Rust stains along tendons in panels, CR= Corrosion of prestressing reinforcement, MC= Moist curing, WC= Waterproof cover, LM= Liquid membrane curing, TC= Transverse cracking, PC= Panel cracking, EJ= Efflorescence at panel joints, CS= Concrete spalling at panel joints, NR= Not reported

Iowa began using PPC panels in the 1980s, similar to Missouri, so Iowa DOT standard drawings were examined in more detail. Compared with Missouri, the main differences in design between Missouri and Iowa panels are prestressing strand spacing and specified panel thicknesses. The reinforcement used in the Iowa panels include 3/8 in. prestressing strand and either No. 3 reinforcing bars at 12 in. on center or 6 in. x 6 in. welded wire reinforcement. The spacing of the prestressing strands is 3 in. on center with a specified side cover of 3 in. In comparison, Missouri uses 3/8 in. prestressing strand at 4-4.5 in. spacing and specifies a minimum side cover of 1.5 in.

In addition to reviewing Iowa's specifications, a report written in 1991 about research sponsored by the Iowa DOT titled, "Composite Precast Prestressed Concrete Bridge Slabs," was reviewed (Abendroth 1991). The report included a questionnaire sent to 121 different transportation design agencies and research performed on the composite

design of the stay-in-place precast forms and the CIP topping. The questionnaire received responses from 69 agencies, and 29 of those agencies had specialized use of PPC panels. With respect to the types of bridge girders, 16 agencies specified that the panels are to be supported by precast concrete girders only, 3 agencies specified steel girders only and 9 specified either concrete or steel girders, respectively. Bridge investigations performed during the research revealed that single and sometimes multiple hairline cracks running parallel to the panel span (perpendicular to traffic) are located within the center half of affected panels and occur below prestressing strands. This cracking was thought to have been caused by "shrinkage of the concrete in the topping slab, thermal expansion or contraction of the cast-in-place topping slab relative to the precast panels, and tensile strains along the bridge length induced by wheel loads." In addition, the research team observed discoloration beneath the strands ranging from small shades of darker gray to 6 to 12 in. long rust stains. The possible cause for the concrete discoloration beneath the strands was thought to be initial corrosion of the prestressing strands initiated by moisture penetrating through the hairline cracking observed along the bottom side of the panels. At the time of this report, the thickness of the panels used was 2.5 in. As seen from Table 2.1, Iowa reported the use of a 3.5 in. thick panel, indicating an increase in panel thickness in their current bridge specifications.

This research also investigated states experiencing similar problems to those reported in Missouri to find similarities in designs and specifications. Michigan and Colorado were two states that had reported problems unique to other states but similar to those of Missouri. For instance, Michigan, Colorado and Missouri were the only states that reported deterioration in the partial-depth panels as well as the CIP topping. Follow up information from these two states was requested and is explained in the paragraphs that follow.

According to the survey response, partial-depth precast panels are used in Michigan but only as replacement decks. A report on their use of the panels, "Investigation of Precast Deck Panels Used in Spread Box Beam Bridges," included an investigation performed by MDOT to determine if possible alternative formwork used on spread box beam bridges was acceptable (Till 1997). The alternatives included concrete SIP form-only panels that made no structural contribution to the bridge deck capacity and

structural SIP precast panels that were designed to contribute the overall bridge deck capacity. Three different decks built in the early 1990's were chosen for this research, one using precast panels as SIP formwork only (built in 1995), another using precast panels as structural SIP forms (built in 1994), and the last using conventional formwork (built in 1993). All three bridge decks were evaluated in the field in June or July of 1996 after being subjected to traffic loadings and environmental effects. Mapping of cracks on the top and underside of the bridge decks was performed and served as the basis for comparison to determine whether the system was an acceptable alternative. Due to the extent of the cracking observed in the bridge decks built with the structural SIP forms, it was concluded that the only acceptable alternative to conventional plywood forms was form-only precast panels. Further attempts to contact MDOT to inquire about their panel designs were unsuccessful.

Colorado was also contacted in regards to a cracking problem reported in their partial-depth concrete panels. Pictures sent by an agency representative indicate a much different cracking problem than that observed in Missouri bridges. The agency's panels included a type of plastic shrinkage cracking. Figure 2.2 shows one of the pictures sent. Based on the comments from one of Colorado's engineers, cracking issues are most likely a result of "hot mixture concrete and quick evaporation of moisture" in the panels and shrinkage cracking due to the curing process. This was not a deterioration problem, so no further investigation was performed.

Figure 2.2: Cracking observed in partial-depth precast-prestressed concrete panels in Colorado (Courtesy of Colorado DOT)

The two state agencies most similar to Missouri in terms of climate and age of bridges are Tennessee and Kansas. These states also provided the design specifications for their partial-depth precast-prestressed concrete panel bridge decks. An in-depth comparison was performed to determine any differences in design.

Tennessee's only reported problem was transverse cracking, and these bridges are approximately 33 years old. Tennessee uses epoxy-coated U-bars for lifting hooks, which would help prevent these bars from corroding and increasing internal pressures in the concrete. Shrinkage reinforcement is also provided in the panels that is alternately placed on the top and bottom of the prestressing strands and has a smaller spacing specification on the ends of the panels. In order for panels to encompass this many layers of reinforcement, the specified minimum panel thickness is 3.5 in. In addition, the prestressing strands extend 3 in. beyond the edges of the panels and over the girder. Extending the prestressing strands over the girders and into the CIP topping increases continuity in the system, which would help decrease cracking in the CIP topping in this location.

Kansas specifies many similar parameters to Tennessee. For instance, epoxy coated shrinkage reinforcement is specified with reduced spacing increments at the ends of the panels. Kansas also extends their prestressing reinforcement beyond the edge of the panel over the girders a minimum length of 4 in. Missouri does not specify the prestressing steel to be extended out of the panels or the use of epoxy-coated U-bars; however, most panels fabricated for Missouri bridge decks now include these designs. Egyptian Concrete in Bonne Terre, Missouri and Coreslab Structures in Marshall, Missouri are the main producers of the partial-depth precast-prestressed panels in Missouri, and a review of their construction process revealed the use of epoxy-coated U-bars, epoxy-coated welded wire reinforcement or No. 3 rebar spaced at 6 in. on center, and extension of prestressing strands beyond the edge of the panels.

2.2. ANALYSIS OF TENDON RUPTURE ON THE SYSTEM

Bridge decks designed with many safety factors can often withstand more load than the bridge deck may encounter in its service life. To determine the amount of over

design in these bridge decks, as well as predict the safety of a bridge with each tendon rupture, the theoretical number of ruptured tendons the bridge deck could lose before the bridge deck became structurally inadequate according to MoDOT's design specifications and before flexural failure of the bridge deck was calculated.

To achieve this, a spreadsheet was developed to analyze the flexural capacity of a bridge deck in accordance with LRFD specifications (AASHTO 1998). The analysis method used was the strip method. The spreadsheet output, summarized in Appendix B, includes dimensions from Bridge A4709 located in Mexico, MO. Due to the extensive corrosion and spalling in the precast panels of the bridge deck, this bridge was selected by MoDOT to have an in-depth site investigation and analysis performed to determine the cause of deterioration in the PPC panels. (The bridge investigation is discussed in Section 3.2.) The bridge deck dimensions were imported into the spreadsheet to determine the loss of nominal flexural strength, M_n, with the loss of each tendon in the bridge deck. Material properties from the bridge drawings and MoDOT specifications were used in the analysis. Design loads included dead weight from the CIP topping (including an extra 0.5 in. of wearing surface), SIP panel and concrete barriers. Live load with impact values were obtained from LRFD Table A4.1-1 (AASHTO 1998) as specified in MoDOT's Engineering Policy Guide (MoDOT 2010). Girders on Bridge A4709 have three different girder flange widths, 10 in., 18 in. and 13 in., resulting in three different deck span lengths and three different analyses. Table 2.2 summarizes the analyses results.

The factored and unfactored design moments, M_u and $M_{service}$, were calculated and are shown in the table. In addition, MoDOT's design specification of $1.33M_u$ was calculated and included in Table 2.2. The nominal flexural strength, M_n, was then calculated to determine the capacity of the bridge deck with no tendon loss. Using an iterative procedure, M_n was recalculated for each loss of tendon to determine the percentage of tendons that could be lost before φM_n became less than $1.33M_u$ and M_n became less than $M_{service}$. Calculations of M_n considered transverse reinforcement placed in the CIP topping of the bridge decks. The maximum percent of tendons the panel could lose in the section before the reinforcement requirement dropped under MoDOT's design specification was approximately 39 percent of tendons. The maximum percent of tendons

the panel could lose in the section before flexural failure was approximately 60 percent of tendons. These results were based on panels with 23 tendons spaced at 4 in. on center. The calculations are based on the assumption that the CIP topping and the SIP panel act integrally on a global basis to support the load. Local behavior and failure is not considered in this analysis.

Table 2.2: Analysis results for Bridge A4709, Mexico, MO

Girder Case	Applied load			Resistance		Max loss of tendons/panel			
(Flange width, in)	M_u (kip-ft/ft)	$1.33M_u$ (kip-ft/ft)	$M_{service}$ (kip-ft/ft)	M_n (kip-ft/ft)	φM_n (kip-ft/ft)	$1.33M_u$ (%)	$1.33M_u$ (No.)	$M_{service}$ (%)	$M_{service}$ (No.)
Case 1 (10)	16.66	22.16	14.32	35.56	35.56	39.13%	10	60.9%	14
Case 2 (18)	16.46	21.89	14.14	36.12	36.12	47.83%	12	69.6%	16
Case 3 (13)	16.63	22.12	14.30	35.37	35.37	39.13%	10	60.9%	14

Note: Max loss of tendons is based on satisfying the following: $\varphi M_n \geq 1.33M_u$ ($\varphi = 1$ for flexure and tension of prestressed concrete)

It should be noted that MoDOT currently specifies 4.5 in. tendon spacing, resulting in a reduction in the number of tendons per panel to 21 (MoDOT 2010). The same analysis was used to find the percentage of tendon loss for a bridge deck with similar span length with only 21 tendons in each PPC panel. This analysis showed the maximum percent of tendons the panel could lose in the section before the reinforcement requirement dropped under MoDOT's reinforcement requirement was approximately 52 percent. The maximum percent of tendons the panel could lose in the section before flexural failure was approximately 57 percent of tendons.

2.3. DEFECTS IN BRIDGE DECKS

As seen in Section 2.2, defects can greatly reduce the structural integrity of a bridge deck. One of the most common defects that occurs in concrete bridge decks is cracking. Cracking is a natural occurrence in concrete; however, it is when these cracks become a certain width and depth that they become a problem. Cracking occurs during

the plastic state of the concrete as well as the hardened state. The types of cracking seen in the plastic concrete state are plastic shrinkage cracking and plastic settlement cracking. Plastic shrinkage cracking occurs when moisture evaporates from the surface of fresh concrete faster than it is replaced by bleed water. This causes the surface concrete to shrink while the concrete below serves as a restraint against the movement, resulting in the build of up tensile stresses in weak, stiffening plastic concrete (ACI 224.1 2007). These cracks begin as relatively shallow in nature but can become full-depth cracks later in the life of the concrete and can be as wide as 1/8 in. at the surface (ACI 224.1 2007). Plastic settlement cracking occurs when concrete consolidates after initial placement, vibration, and finishing. The crack intensity increases with increasing bar size, increasing slump, decreasing cover, insufficient vibration, and the use of leaky or highly flexible forms (ACI 224.1 2007). Beginning with plastic shrinkage cracking, deterioration can exponentially increase if no remediation tactic is attempted.

Cracking in hardened concrete has many more causes. The main causes seen in bridge decks are the result of drying shrinkage, weathering and corrosion of reinforcement. Concrete shrinks as the cement paste loses moisture. If concrete were allowed to shrink without restraint, there would be no cracking; however, reinforcement, girders and sometimes formwork restrain concrete in a typical bridge deck. As concrete shrinks, cracks develop when the concrete tensile stresses exceed the tensile strength of the concrete. Once initiated, cracks may propagate at much lower stresses than are required to cause crack initiation (ACI 446.1 1991). Restrained shrinkage causes both transverse and longitudinal deck cracking. Restraint from the composite attachment of the bridge deck to the girders as well as transverse reinforcement in the upper mat causes transverse cracking (i.e. cracking perpendicular to traffic flow) (PCA 1970). Longitudinal cracking, or cracking parallel to traffic flow and the direction of the girders, manifests directly above edges of girders in superstructures (Frosch 2003).

Weathering of concrete such as freezing and thawing, wetting and drying, and heating and cooling can cause cracking in hardened concrete as well. The most common weather-related physical deterioration is damage caused by freezing and thawing (ACI 224.1 2007). The best way to protect concrete from deterioration associated with weathering is by allowing the lowest practical water to cement ratio and total water

content, durable aggregate and adequate air entrainment in the concrete mixture (ACI 224.1 2007).

Corrosion of embedded steel reinforcement may also cause concrete cracking. Concrete provides a protective oxide coating around steel known as passive protection. Once the passive protection, an oxidizing agent and electron flow can create the electrochemical process known as corrosion in steel reinforcement (ACI 224.1 2007). Reduction in the passive layer is caused by a reduction in the alkalinity of concrete, caused by carbonation, or by aggressive ions (usually chlorides) invading areas around the steel (ACI 224.1 2007). Corrosion of steel produces rust consisting of iron oxides and hydroxides, which has a much larger volume than the original metallic iron (Bentur et al. 1997). This creates radial stresses around the reinforcement that, when large enough, produce radial cracking in the concrete surrounding the reinforcement. Any type of cracking perpetuates the corrosion situation by allowing chloride and carbonation access to the steel reinforcement located in concrete decks. Another result of corrosion is a loss of cross-sectional area in the reinforcement resulting in reduced load capacity.

According to Purvis et al. 1995, cracks wider than 0.007 in. contribute to deterioration in the concrete deck in the presence of deicing chemicals. For this reason, it is very important to examine bridge decks, using visual inspection, and take precautionary steps at the first site of deterioration.

2.4. NON-DESTRUCTIVE METHODS FOR DETECTING BRIDGE DECK DEFECTS

As bridges age, it is necessary to examine and assess their structural integrity to check the safety of their use. All bridge investigations should begin with a visual inspection. A visual inspection is an in-depth survey of the bridge deck. Before a visual inspection is performed, proper documents including bridge drawings and specifications should be obtained to familiarize the surveyor with the bridge components. The survey of the bridge deck typically includes locating and examining signs of deteriorations such as cracks, popouts, spalling, color change, weather, staining, and surface blemishes. Each identified anomaly should have its location on the bridge deck mapped or recorded in

some fashion. It is also helpful to rate the degree of deterioration to give a preliminary indication of the structure's condition. A trained surveyor can often determine substantial information regarding the structure such as the construction methods used on the bridge decks, weathering, chemical attack, mechanical damage, physical deterioration, abuse, construction deficiencies or faults. Visual inspection is a very simple technique that, when done properly, yields information that aids in the development of accurate assumptions for the causes of deterioration in bridge decks; however, a more in-depth investigation is needed to prove assumptions and gain a better understanding of the problem. The visual inspection can also be a crucial tool in determining additional non-destructive testing needed to assess the condition of the bridge deck. There are many different types of non-destructive testing (NDT) technologies in use today for the inspection of concrete bridge decks. The type of method used depends on the type of bridge deck and the information needed.

One of the most popular bridge decks constructed in Missouri over the past 30 years consists of 3 in. thick stay-in-place PPC panels with a 5.5 in. thick CIP topping. Investigating bridge decks containing SIP panels is much more difficult than those containing a full-depth cast-in-place system. According to ACI committee 201.1, bridge surveyors should quantify the extent of distress in the bridge decks. In the instance of cracking, it is necessary to examine the bottom of the CIP slab to determine the severity of cracking (1992). SIP structural forms make it impossible to observe visually the extent of the crack propagation in the CIP topping. These systems may also develop unseen delaminations or voids at the interface of the cast-in-place portion of the slab and the SIP concrete forms. In addition, these systems generally contain several different layers of steel reinforcement: mild temperature and shrinkage steel reinforcement and continuous positive and negative moment steel reinforcement is included in two different layers in the CIP portion of the slab and mild temperature and shrinkage steel with prestressing tendons are located in the PPC panels. The easiest and most common way of collecting data on bridge decks is from the top surface of the bridge deck. This is normally less disruptive to traffic and is the easiest on the collector. Voids along with the many layers of reinforcement, however, can make it impossible for certain NDT techniques to collect data pertaining to the bottom prestressing steel from the top surface of the bridge deck.

The threatening spalling issues MoDOT bridge decks are exhibiting are exposing prestressing tendons as well as mild reinforcing on the ends of the partial-depth PPC panels (See Section 3). The tendons exhibit a large degree of corrosion, some to the extent of cracking and rupture. In order to determine the cause and possible solutions to the spalling problem, several qualities of the existing bridge deck needed to be assessed: existing concrete cover of reinforcement, interface conditions between the CIP topping and the precast panel, arrangement of reinforcement, present chemical and physical material properties, crack widths and depths and a map of water leakage and spalling. An in-depth visual inspection would not suffice in this investigation, so many NDT methods were researched in order to determine which technique or techniques would best be suited to obtain this critical information.

MoDOT bridge decks contain two components, concrete and steel. The NDT methods in the following sections are categorized by what information can be obtained, and then different techniques are compared in order to determine method(s) best suited for this study.

2.4.1. Methods for Detecting Concrete Defects. Many things can deteriorate the material make-up of concrete, especially as the concrete ages. Depending on its severity, concrete deterioration can reduce structural integrity of bridge deck. Three different methods found in the literature review are capable of testing an existing bridge deck for concrete defects only: Rebound hammer, Impact Echo (IE), and Infrared Thermography (IR) camera. Note additional methods capable of testing both concrete and reinforcement defects are discussed in Section 2.4.3. Sections 2.4.1.1 through 2.4.1.4 discuss the capabilities of each of the aforementioned techniques.

2.4.1.1 Rebound hammer. The rebound hammer, also known as the Schmidt hammer, is a surface hardness tester. It uses a small apparatus to measure the rebound of a spring-loaded hammer. The rebound of an elastic mass depends on the hardness of the surface against which the mass impinges (IAEA 2002). There is little theoretical relationship between the rebound number of the hammer and the strength of concrete; however, each apparatus has its own 5000 psi calibration block. Each hammer also includes a manufacturer's curve relating the hammer rebound number to concrete strength based on calibration with cube specimens. Many factors can affect the rebound

number on concrete including smoothness of the test surface, size, shape and rigidity of the specimen, age of the specimen, surface and internal moisture conditions of concrete, type of coarse aggregate and type of cement and carbonation of the concrete surface (IAEA 2002). Testing cores taken from the specimen of interest to calibrate the hammer produces the most accurate readings, but this requires destructive measures to remove the cores. Without calibration, a rebound hammer is useful in comparing relative rebound numbers on specimens consisting of similar concrete and environmental conditions.

The rebound hammer weighs approximately 4 lbs making it very portable and easy to handle (IAEA 2002). Rebound numbers found by placing the device directly perpendicular to the concrete surface are the most accurate. The surface orientation, such as a vertical surface, does not affect the readings; however, a rebound hammer not placed directly perpendicular to the testing surface will produce erroneous results.

2.4.1.2 Impact Echo (IE). Impact Echo uses an elastic impact to induce a temporary stress wave into a structure. A displacement transducer measures the time of return of waves reflected by voids, cracks, delaminations and debonding between surfaces of concrete (Ali 2003). "Through relatively simple calculations, defect depths may be calculated." (Ali 2003). The IE device consists of an analog/digital data acquisition system with a transducer that measures displacements and transfers data to the acquisition system (Yehia, 2007). Impact devices ranging from 3 to 15 mm steel spheres create waves with frequencies of 50-300 kHz (Yehia, 2007). The selection of the sphere plays a large role in the ability to detect certain sizes of flaws. The impact time, diameter of the sphere and kinetic energy produced by the impact, determine the wave's ability to propagate and detect flaws in concrete (Yehia, 2007).

In the mid 1980's, the IE technique began its development for testing of concrete structural members (ACI 228.2 1998). IE can also be useful in determining thicknesses of concrete and uses only one exposed surface to take measurements. This method is capable of providing information about the depth and extent of the flaw, and is not susceptible to the presence of metal reinforcement (Yehia, 2007). The ability for Impact Echo to detect the size of the flaws is highly dependent on the impact duration (Yehia, 2007). IE is not capable of detecting cracks or corrosion in the reinforcement, and concrete-to-air interfaces may cause erroneous results (Yehia, 2007). Another limitation

is that the results tend to become less reliable in the presence of asphalt overlays. In addition, interpretation of results is difficult and requires experienced personnel.

2.4.1.3 Infrared thermography (IR). The IR camera works by detecting thermal differences between sound concrete and defected concrete. Thermography readings are affected by the abilities of elements to radiate energy (Yehia, 2007). This ability is known as emissivity, which increases if the surface is rougher or darker. Environmental factors such as wind speed and moisture on the surface affect radiant heat. Wind speeds must be less than 10 to 15 miles per hour to have no effect on readings (Yehia, 2007). Moisture on the surface of structures also tends to decrease heat differences (Yehia, 2007). Some advantages of IR include the ability to scan large areas in little time, the ability to detect delaminations, cracks, voids and debonding between layers, low operating cost and minimal disruption to traffic (Yehia, 2007). This method, however, can only be used during certain months of the year and lacks the capability of detecting depth and quantity of defects (Yehia, 2007). IR results become less reliable when the cover of the defects increases above 2 in., and delaminations that are water filled instead of air-filled are undetectable (Yehia, 2007).

2.4.1.4 Comparison. Each technique described in Sections 2.4.1.1 through 2.4.1.3 provides information needed for the analysis of spalling behavior described in Section 1.2. Table 2.3 summarizes the advantages and disadvantages to each of these techniques. The rebound hammer provides information on the surface hardness of the concrete on the bridge deck. This very cheap and easy technique is only accurate with core calibration; however, the rebound number can be used to compare the relative surface hardness of different portions of the bridge deck. IE shows exceptional abilities in detecting voids, cracks and delaminations with high precision; however, this method requires many testing points resulting in slow testing, and the use of equipment and interpretation of results requires experienced personnel. The IR camera demonstrates an ability to detect flaws but only when they are shallow and large in dimension; delaminations and voids located in the middle of a bridge deck cross-section are less likely to be detected, especially those deeper than two inches.

The most accurate investigation would consist of using all three tactics on bridge decks; however, this was not feasible in this study. Based on the literature review and

available resources, the rebound hammer was selected for use in this study (Section 3.2.3.4). This technique would provide a quick and easy way to compare concrete strengths between the different panels on the bridge deck. Although rebound hammer cannot indicate defect locations, additional techniques discussed in Sections 2.4.3.1-2.4.3.4 have this capability and would supplement the results.

Table 2.3: Summary of non-destructive methods for detecting concrete defects (Adapted from Yehia 2007)

	Uses	Advantages	Disadvantages
Rebound Hammer	Determines concrete strength (hardness)	Very easy application	Capable of testing surface concrete strength only; requires destructive methods to increase accuracy; many factors, such as moisture content in the concrete, can affect results, cannot directly locate defects in concrete
Impact Echo	Detects voids, cracks, delaminations, unconsolidated concrete and debonding in concrete; determines thickness of concrete	Can detect and decipher depth to defects with high accuracy, can estimate thickness of concrete, not susceptible to metal	Detection of defect is highly dependent on the impact duration; results are less reliable in the presence of asphalt overlays
Infrared Thermography	Detects thermal differences, delaminations and voids in concrete	Portable equipment; simple, easy interpretation; minimum traffic interference; large areas can be rapidly inspected	No information about depth of defects; dependent on environmental conditions

2.4.2. Methods for Detecting Reinforcement Defects. Reinforcement used in concrete to provide tensile strength can deteriorate just as concrete can. Much reinforcement in aged bridges today is steel reinforcement, epoxy-coated steel reinforcement, prestressing tendons, or a combination of these. In MoDOT bridge decks, much of the reinforcement is epoxy-coated so it is less susceptible to corrosion. However,

prestressing steel tendons, the most important positive moment reinforcement in the bridge deck, is not.

The standard chloride ion test and visual inspection techniques provide limited information in regards to the degree of distress in prestressing tendons. Other technologies can provide more information, but the interpretation of results is much more difficult and tedious. These technologies include magnetic field disturbance, remnant magnetism, linear polarization, electrical resistance, surface potential survey and an additional device that measures the strain in prestressing strand. Sections 2.4.2.1 through 2.4.2.6 discuss and compare these technologies. Note additional methods capable of testing both concrete and reinforcement defects are discussed in Section 2.4.3.

2.4.2.1 Magnetic field disturbance. Magnetic field disturbance (MFD) applies a steady magnetic field near a member and scans the surface of the member to detect perturbations in the magnetic field that would be caused by the presence of flaws in, for example, prestressing or reinforcing steel (Steber 1989). This system consists of an electromagnet, four Hall Effect sensors, and data acquisition and processing hardware (Steber 1989). Sensors placed in a T array oriented horizontally between electromagnet poles detect the perturbations in the magnetic field. The electromagnets create a magnetic field large enough to align completely the atomic dipoles of the steel, known as saturating the steel (Steber 1989). Placing all components on a movable cart assembly involves trade-offs between size, weight, field strength, power requirements and penetrating power. In Steber 1989, the system used for research weighed about 250 pounds, but, reportedly, the weight of the magnet assembly may be significantly reduced by using a permanent magnet, made from “hard” ferromagnetic material that stays magnetized instead of an electromagnet. Once the magnetic field saturates the steel, sensors are able to detect any change in the cross-section of the steel that cause a change in the magnetic permeability.

The MFD operates on the concept that flaws in the steel reinforcement change the cross-sectional area of the steel reinforcement producing a disturbance in the magnetic field. While this is true, there is normally more than one source of steel in a slab. Steel support chairs embedded in the concrete used to support the reinforcement while casting the concrete can also create signals; however, Steber 1989 found the signals from steel

chairs vary from the signals of the reinforcement. Chairs produce signals of reverse polarity with larger amplitudes and shorter duration. Specimens by Steber consisted of beams with stirrups and steel chairs located along longitudinal steel, which was flawed in different sections along the bars. Flaws ranged from simple loss of section to hacksaw cuts and filed notches. The MFD was able to distinguish the flaw types by the signals produced as well as filter out the stirrup signals. Each flaw in the longitudinal steel produced a different flaw signature.

Steber tested three methods of MFD signal analysis: signal differencing, correlation, and magnetic field profile (MFP) techniques. Signal differencing involves filtering out the frequencies that match stirrups or other steel objects in order to focus on flaws in the prestressing steel. The correlation method compares each signal to an ideal flaw signal. The higher the degree of similarity, the closer the correlation values are to +1. The exact opposite signal would produce a correlation value of -1. The MFP technique can locate a flaw using the variation in amplitudes of the signals. A positive peak followed by a negative peak in the signal amplitude would indicate a flaw.

Steber performed tests on prestressed concrete using the different techniques to compare these three methods of signal analysis. The best technique found to interpret the data was a combined use of the correlation and the MFP techniques. The MFP technique found flaws located near stirrups that the correlation method did not and found flaws the quickest. The MFP technique compares quite favorably with correlation methods and, in a number of cases, surpasses it. Neither data analysis method, however, yields 100% reliable results in all cases. Signal amplitudes significantly reduced as the depth of concrete cover and the amount of longitudinal steel increased.

Speed of the cart assembly and the speed of the computer receiving the measurements controls the time required to gather measurements on prestressed concrete. Typical measurements are at 0.2 in. intervals along the member (Steber 1989).

In summary, MFD used for the detection of defects in prestressing steel is a reliable technique that can differentiate between each type of defect including pitting, notching, and loss of section. This method creates a magnetic field in the slab while concurrently scanning surfaces to search for perturbation in the field caused by such defects in the steel. Known steel locations are required for direct interpretation of results.

2.4.2.2 Remnant magnetism. Remnant magnetism method uses an electromagnet to magnetize steel in the concrete up to saturation to remove the magnetic history of the steel (Ali 2003). This can be performed on steel with up to 10 in. of concrete cover (Ali 2003). Signals from this magnetism can be used to distinguish between prestressing steel and steel reinforcing bars and can detect fractures and breaks in the tendons; however, the size of the defect cannot be determined (Ali 2003).

2.4.2.3 Linear polarization. Linear Polarization method, also known as polarization resistance, sends a current through the steel to calculate the corrosion rate in millimeters per year by determining polarization resistance per unit area of metallic surface (Ali 2003). These corrosion rates do not reflect the actual loss of section and require further investigation to be accurate in large concrete structures (Ali 2003). This method permits rapid corrosion rate measurements of steel with the assumption that all wires or steel undergo the same amount of corrosion. Polarization resistance cannot distinguish between prestressing tendons and steel reinforcing bars (Ali 2003).

2.4.2.4 Electrical resistance. Electrical resistance method measures the resistivity of concrete. Concrete is classified as a semiconductor that has varying resistivity depending on certain factors (Sengul 2009). This technique uses a four-probe technique to investigate corrosion in bridge decks by measuring the resistance of the reinforced concrete with an applied electrical field (Ali 2003). The higher the resistance, the slower the corrosion process can proceed (IAEA 2002). The depth of the concrete zone affecting the measurement will be equal to the electrode spacing, and a spacing of 50 mm is commonly adopted (IAEA 2002). Embedded steel significantly affects the resistivity of the concrete, so measurements taken as far from steel as possible are most accurate (Sengul 2009). Resistivity in concrete is also influenced by the concrete's moisture content, salt content, temperature (resistivity increases as temperatures decrease), water-to-cement ratio and mixture proportions (IAEA 2002).

There are no generally accepted rules of relating resistivity to corrosion rate; however, a commonly used guide for the interpretation of measurements can be found in Table 2.4. Lower readings generally indicate higher likely corrosion rates. Half-cell potentials taken on the same concrete structure can help correlate resistivity values. (See Section 2.4.2.5)

Table 2.4: Guide for the interpretation of the measurements during corrosion assessment (IAEA 2002)

Resistivity (ohm cm)	Likely Corrosion Rate
Less than 5,000	Very high
5,000-10,000	High
10,000-20,000	Low/Moderate
Greater than 20,000	Negligible

2.4.2.5 Surface potential survey. Surface potential survey, including half-cell or electrode potential mapping, measures the potential of an embedded reinforcing bar relative to a reference half-cell placed on the concrete (IAEA 2002). The half-cell consists of a copper-to-copper sulphate or a silver-to-silver chloride cell. A rigid tube or container composed of dielectric material that is non-reactive to the copper or copper sulphate (usually a porous wooden or plastic plug that remains wet by capillary action) and a copper rod that immersed within the tube in a saturated solution of copper sulphate completes the half-cell (IAEA 2002). The concrete functions as the electrolyte allowing the measured potential difference to be related to the risk of corrosion of the reinforcement in the immediate region of the test location (IAEA 2002). See Table 2.5 below for potential difference measurements and the probability of reinforcement corrosion. Lower values (i.e. greater absolute values) of potential differences correspond to higher probability of corrosion.

Table 2.5: Potential difference and corresponding probability of corrosion in reinforcement (IAEA 2002)

Potential difference levels (mV)	Probability of rebar being corroded
Less than -500	Visible evidence of corrosion
-350 to -500	95%
-200 to - 350	50%
More than -200	5%

Many factors, such as concrete carbonation depth, can complicate interpretations, so destructive test methods may be needed to calibrate the half-cell readings (IAEA 2002). The half-cell is a very simple instrument to use and can be very useful in determining varying degrees of corrosion risk; however, the half-cell cannot actually be used to calculate the corrosion rate in the steel reinforcement (IAEA 2002).

2.4.2.6 Other. Civjan et al. developed an instrument to measure the amount of stress in prestressing strands that can be useful in determining prestressing force remaining in damaged tendons. This instrument connects to prestressing strands and measures their elongation under loads. The first prototype consisted of a frame containing roller bearing pegs that rest against the strand. High strength grasping pegs aligned with load cells apply load to the strand by tightening a nut, while a dial gauge attached to the frame measures displacements under the load. The final prototype is lightweight and requires only an external voltage source and voltmeter.

Civjan used the prototype to estimate the prestress force remaining in exposed strands in damaged prestressed girders quickly, reliably and inexpensively; however, additional calibrations are needed to accommodate various strand types and sizes as well as different exposed strand lengths.

2.4.2.7 Comparison. Each non-destructive test mentioned in Sections 2.4.2.1 through 2.4.2.6 provides different types of information regarding the internal steel reinforcement. Table 2.6 summarizes and compares the above methods. Magnetic field disturbance and remnant magnetism are very useful in locating corroded and fractured tendons in the bridge deck, but the literature review gave no indication on its capability to determine corrosion rates. Linear polarization has the capabilities of determining corrosion rates directly but is not accurate on large concrete structures. Due to the complexity of some methods and their lack of capability to determine corrosion rate, the techniques selected for this research included electrical resistance and surface potential methods (Section 3.2.3.3). Although neither of these techniques can directly obtain the corrosion rate of steel, electrical resistance used together with surface potential and chloride ion data can provide approximate corrosion rate numbers.

Table 2.6: Summary of non-destructive methods for detecting reinforcement defects (Adapted from IAEA 2002)

	Uses	Advantages	Disadvantages
Magnetic Field Disturbance	Detects flaws and corrosion in prestressing or reinforcing steel	Distinguishes flaw types	Known steel locations are required for direct interpretation of results; signal amplitudes significantly decrease as concrete cover depth and reinforcement increases
Remnant Magnetism	Detects fractures and breaks in tendons	Distinguishes between prestressing and reinforcing steel; appropriate for detection of steel with up to 10 inches of concrete cover	Does not determine the size of the defect
Linear Polarization	Measures corrosion rate in steel	Rapid corrosion rate measurements	Does not distinguish between prestressing and reinforcing steel; not accurate on large concrete structures
Electrical Resistance	Measures likely corrosion rates in steel	Simple technique; indicates corrosion	Cannot measure corrosion rate directly
Surface Potential Survey	Determines corrosion risk in steel	Quick and simple application	Cannot measure corrosion rate; requires direct contact with steel
Other: Prestressing Capacity	Measures the prestressing force in prestressing strands	Quick and inexpensive application	Strands must be exposed; must be calibrated for change in strand size and exposure length

2.4.3. Methods for Detecting Both Concrete and Reinforcement Defects.

Many NDT methods exist with capabilities of detecting defects in both concrete and its steel reinforcement. The convenience of using one method compared to two to achieve the same result has many agencies and researchers putting more and more effort into developing techniques like those listed in Sections 2.4.3.1-2.4.3.4. Ground penetrating radar (GPR) and radiography are among the more developed methods, but computed tomography and acoustic emission methods have potential to become just as useful.

2.4.3.1 Ground penetrating radar (GPR). Ground penetrating radar (GPR) is a method that uses reflected pulses of electromagnetic radiation to locate and qualitatively assess the condition of reinforcement embedded in concrete by relating position to arrival time and condition to both arrival time and reflection amplitude (Cardimona et al. 2001). Figure 2.3 shows sample images of reinforcing bars in concrete. The GPR antenna transmits short bursts (pulses) of high-frequency electromagnetic radiation into the concrete slab (Billington 2003). Some of this radiation is reflected/diffracted from the reinforcement, or at other changes of dielectric properties, and returned to the antenna, which records its arrival time and amplitude (Maierhofer 2003).

In bridge deck investigations, sampling profiles are oriented perpendicularly to the rebar. As a result, the apex of the reflection/diffraction hyperbola is coincident with the location of the reinforcement (GSSI 2007); the depth to the top of the reinforcement can be estimated by dividing the two-way arrival time by twice the velocity with which electromagnetic radiation travels through the concrete (Wamweya 2008). Alternatively, the velocity of the concrete can be estimated by dividing twice the known depth to the top of the rebar by the arrival time of the reflection/diffraction (Wamweya 2008).

The velocity of concrete decreases as the condition of the concrete deteriorates. Hence, variations in the velocity of the concrete (or attendant variations in the apparent depth to the top of the reinforcement) are generally indicative of variable concrete integrity. Degraded concrete also attenuates propagating electromagnetic energy more rapidly. Hence, variations in the amplitude of the energy reflected/diffracted from reinforcement are often indicative of changes in the integrity of the concrete overlying the rebar.

The GPR tool can also be used to map the base of the concrete slab. Increases in the arrival time of the reflections from a uniform concrete slab, typically represented as increases in apparent thickness, and decreases in the amplitudes of the reflections from the base of the concrete slab, due to enhanced attenuation, are usually indicative of degraded concrete (Cardimona et al. 2001). Hence, GPR can be used to locate and map degraded concrete (areas of high moisture content, areas of honeycombing, as well as damaged, deteriorated areas in concrete) (Billington 2003).

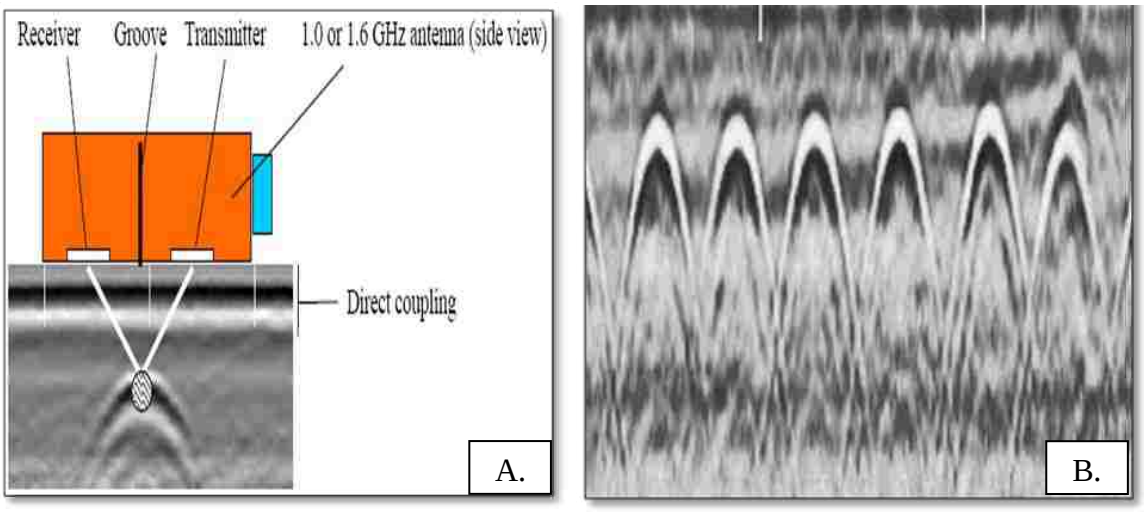

Figure 2.3: Sample images of reinforcing bar (A. GPR image of embedded reinforcing bar, B. Hyperbolic-shaped GPR images of reinforcing bar) (GSSI 2007)

GPR is capable of locating multiple layers of reinforcement, including prestressing steel; however, if the reinforcement is spaced too closely together, it can often mask the reinforcement below it making the lower layer of reinforcement signals difficult to interpret.

Hot or cold ambient temperatures does not adversely affect GPR measurements compared to other test methods, such as infrared thermography, and large surface areas can be imaged relatively rapidly (Yehia 2007). One limitation, with respect to depth/thickness estimation, is that the arrival time of a reflected pulse is a direct function of the dielectric permittivity of the concrete (Maierhofer 2003). The dielectric permittivity is the ability of a medium to store EM energy in the form of induced charge polarization and then permit the passage of EM energy when an external field is imposed on the material (Wamweya 2008). A change in the dielectric permittivity of a material depends primarily on the water content of that material (Daniels 1996); hence, the dielectric permittivity of concrete varies as a function of its integrity. As a result, the "apparent thickness" of a concrete slab on a GPR profile can vary as its condition varies.

Different frequency GPR antennas are available for numerous applications and investigations. For shallow investigations, such as bridge deck condition assessment, a higher frequency antenna provides superior spatial resolution. According to Wamweya

2008, a GPR with a 1.5 GHz antenna has a penetration depth of approximately 18 in. in concrete making it one of the most appropriate antennas for bridge deck assessment.

2.4.3.2 Radiography. Radiography uses a powerful radiation source to produce and send x-rays or beta or gamma particles, through one side of the concrete structure and then detects them on the other (Ali 2003). The gamma radiation attenuates as it passes through building components. The attenuation amount depends on the density and thickness of the materials making this technique appropriate for locating internal cracks, voids and ducts in the concrete as well as locating the position and condition of reinforcing steel (IAEA 2002). This technique, however, is not effective in detecting section loss of reinforcement, especially section loss for ducted tendons (Ali 2003). The technique produces 2D images. As a result, sound tendons may hide corroded tendons (Ali 2003). In addition, this technique has restrictive access requirements to ensure personal health and safety because radiography produces harmful gamma particles (Ali 2003).

2.4.3.3 Computed tomography. Computed tomography is a technique much like radiography using conventional x-rays or gamma particle methods and requiring access to both sides of a structure (Ali 2003). This technique sends a beam of radiation in a straight path through a structure. Parts of the beam become partially absorbed and scattered in the structure, while the remaining radiation travels completely through the structure to the opposite side (Ali 2003). Computed tomography is unable to detect cracks in prestressing wires, but it is able to detect significant loss of section due to corrosion in both ducted and non-ducted tendons and cracks in concrete (Ali 2003). The interpretation of the retrieved data can be complicated if there are varying surface temperatures and weather conditions (Ali 2003). The determination of corrosion/metal loss is dependent on the resolution of equipment, and the data processing of this technique is very slow (Ali 2003).

2.4.3.4 Acoustic emission. Acoustic emission works by placing piezoelectric transducers in the bridge deck during construction to monitor structures during service life; thus, it cannot detect cracks or corrosion that has already occurred in the bridge deck (Ali 2003). Microseismic activities occur in the bridge decks in response to external loads. These activities eventually cause cracking in the concrete or fracture of a strand

creating detectable acoustic emissions in the structure (IAEA 2002). The piezoelectric transducers convert the acoustic emissions into electronic signals, and strength and arrival times of the signals to the transducers indicate the location and type of failure; however, extensive knowledge is required to plan, test and interpret the results (IAEA 2002). Large areas only need a few transducers to detect and locate defects, but equipment costs are high. This method not yet fully developed method is restricted to laboratory use only at present.

2.4.3.5 Comparison. Investigating bridge decks can be time consuming and costly. Reducing the number of methods needed to assess the structural integrity of bridge decks will reduce costs and lane closure times while providing the information needed about the bridge deck. Table 2.7 compares all techniques listed in Sections 2.4.3.1-2.4.3.4. GPR shows an excellent ability to detect qualitatively delaminations, voids, and reinforcement corrosion but is not able to detect surface cracks. Radiography can detect internal cracks and voids in concrete and steel, but is a health and safety risk if not used by trained personnel.

Based on this comparison and equipment available, GPR was selected for use in this study (See Section 3.2.3.2). The technique would indicate locations of deterioration and corroded reinforcement within the bridge deck. Because of the multiple layers of steel reinforcement in the bridge deck, scans would be performed on the top and the bottom of the bridge deck to ensure clear imaging of the prestressing tendons in the precast panels (See Section 3.2.4.2).

Table 2.7: Summary of non-destructive methods for detecting reinforcement defects (Inspired by IAEA 2002)

	Uses	Advantages	Disadvantages
Ground Penetrating Radar	Capable of detecting locations of reinforcement, the depth of cover, the location of voids, the location of cracks, *in situ* density, moisture content variations	Surveys large areas rapidly; portable; appropriate with overlays; minimum traffic control required	Accurate results require core control; complex results are difficult to interpret
Radiography	Capable of locating internal cracks, voids, duct and reinforcement; capable of assessing condition of reinforcement	Simple to operate; applicable to a variety of materials	Health and safety issues for both the operatives and those in the vicinity; must be performed in areas isolated from the public; access to both sides of the structure is required
Computed Tomography	Capable of detecting significant section loss of prestressing wire due to corrosion and imaging cracks in the concrete	Capable of inspecting ducted tendons	Very slow data processing; data can be complicated with varying surface temperatures and weather conditions; access to both sides of the structure is required; unable to detect cracks in prestressing wire; expensive scanners; long measurement times
Acoustic Emission	Continuous monitoring of structures during service live; capable of detecting and cracking and fracturing of reinforcement	Detects onset of failure; only a few transducers are needed for large areas; gives insight to existing structures response to load	High equipment costs; cannot be used to located defects in existing structures; method is not yet fully developed for field use

3. BRIDGE INVESTIGATIONS

In order to comprehend fully and define accurately the cause of the spalling problem observed in partial-depth PPC bridge deck panels, a series of investigations of various bridge decks with the bridge deck paneling systems was conducted. Table 3.1 is a reference table of bridges investigated during this research. Sections 3.1-3.3 discuss the objectives and techniques used in each investigation and present the corresponding findings. Investigation techniques were selected based on results from Section 2.4.

Table 3.1: Data of bridges investigated

Bridge Number	Construction Date	Number of Spans	Orientation	Prestressing Spacing	Panel thickness
A4067	1986	3	N to S	4.5 in. o.c.	3.5 in.
A4375	1985	2	NE to SW	4.5 in. o.c.	3.5 in.
A4704	1990	2	N to S	4 in. o.c.	3 in.
A4705	1990	4	NE to SW	4.5 in. o.c.	3 in.
A4709	1991	2	NW to SE	4 in. o.c.	3 in.

3.1. ST. LOUIS BRIDGE INVESTIGATIONS

A visual investigation was conducted on Bridges A4067, A4375, A4704 and A4705 in St. Louis, MO. These bridges contain partial-depth PPC panel bridge systems that were identified as having the panel spalling problem. All of these bridges use long span steel plate girders for the bridge deck supports and serve as overpass bridges to major highways in Missouri. This investigation took place on December 10, 2008. St. Louis had received approximately 0.5 in. of rainfall and 0.3 in. of snow the preceding week.

3.1.1. Objective. The objective of the St. Louis investigations was to identify visually problems in the bridge decks and to gain a better understanding of the nature of problems occurring in the bridge decks. These investigations would also serve as the basis for establishing the protocol for the comprehensive bridge investigation described in Section 3.2.

3.1.2. Findings. Deterioration conditions were similar in nature in each bridge deck. Transverse cracking extended over the entire bridge deck in a "zigzag" fashion and in many cases, extended through the concrete barriers. Transverse cracks appear to be reflective cracks, which form directly over the panel joints. Figure 3.1 shows examples of the cracking observed in the bridge decks.

Observed water stains, efflorescence, rust seepage and spalling at the bottom surface of many panels indicate deterioration and corrosion of steel is occurring. Its main cause is most likely due to the ingress of carbonation and chlorides into the concrete. Figure 3.2 shows three different panel joints with water staining and efflorescence surrounding the spalled area, which exposes much of the panel reinforcement. The transverse cracks above provide a direct route for chlorides to reach prestressing tendons embedded in the prestressed panel.

Rust colored stains were also observed on the surface of many panels as shown in Figure 3.3. The spacing of these stains is approximately 4 in., and very closely resembles the 4.5 in. spacing currently used in MoDOT specifications for tendon spacing. The spacing of the discoloration lines indicate their cause may be from rust stains permeating through the concrete from rusting tendons; however, no cracking was seen in the panels at or near the discoloration lines. The presence of cracks would confirm the cause of the discolorations were, in fact, rust from corroding tendons permeating through the concrete. Thus, from this investigation, the cause of the discoloration observed in the middle of many panels was unable to be determined.

Although the current extent of panel deterioration does not show any immediate structural deficiency, a hindrance on long-term structural performance is inevitable if the propagation of deterioration continues (See Section 2.3). Figures 3.4 and 3.5 show exposed tendons and spalled concrete sections. In Figure 3.4, the spalled section is approximately 2.5 in. deep. The spalling not only exposes the prestressing but also the mild reinforcement spaced at 6 in. on center. Partially or completely ruptured tendons, shown in Figure 3.5, indicate the extent of corrosion in these systems. Once bridges lose large portions of concrete or multiple tendons in each panel, structural deficiency is inevitable.

Amongst all of the transverse cracking, no significant longitudinal cracks were observed along the girder lines in any of the St. Louis bridge decks investigated. These cracks were observed by many other agencies (See Section 2.1) and can often lead to more corrosion and deterioration in the bridge deck components.

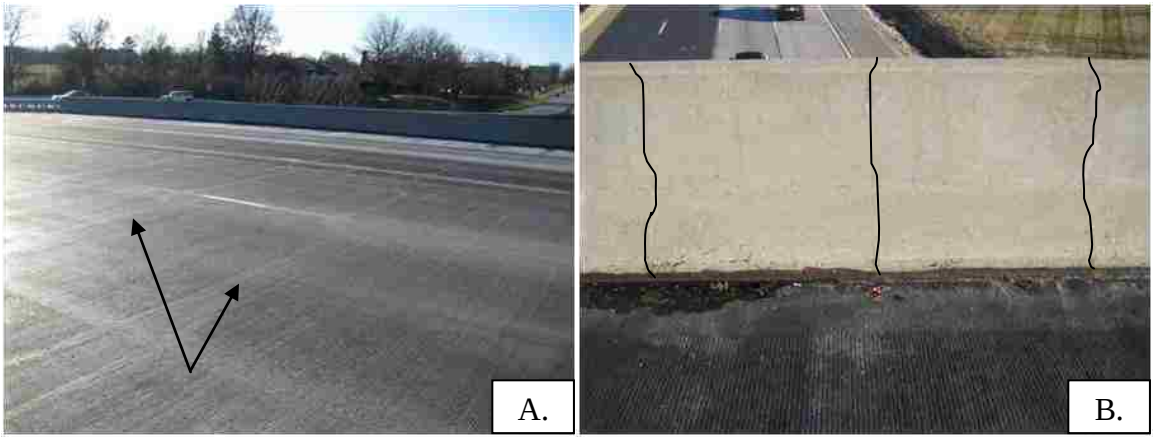

Figure 3.1: Crack propagation in bridge deck (A. Cracking in the CIP topping, B. Cracking from the CIP topping extending to the concrete barrier (highlighted for clarity)) (Bridge A4704)

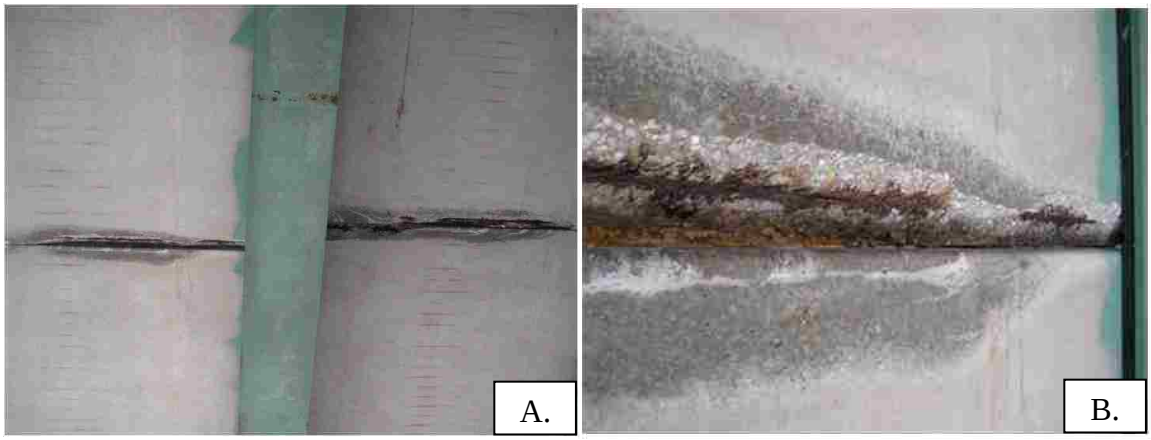

Figure 3.2: Spalling, efflorescence, water staining and rust stains observed in PPC panels (A. Adjacent panel joints, B. Close-up shot of one panel joint) (Bridge A4704)

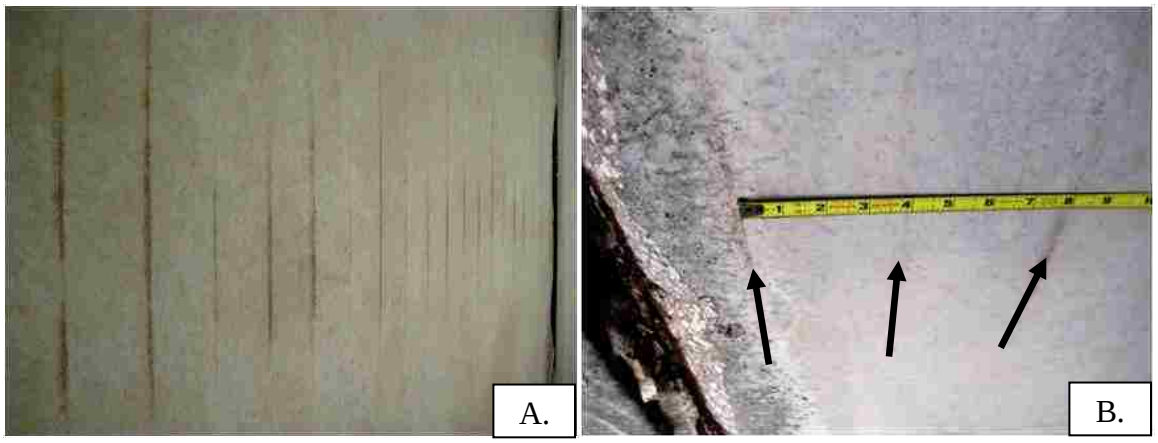

Figure 3.3: Rust stains observed on the panel surface (A. Rust stains along the entire width of the panel, B. Rust stain spacing at 4 in. on center) (Bridge A4704)

Figure 3.4: Spalled sections of PPC panels (A. Depth of a spalled section, B. Exposed mild reinforcement in a spalled section) (Bridge A4067)

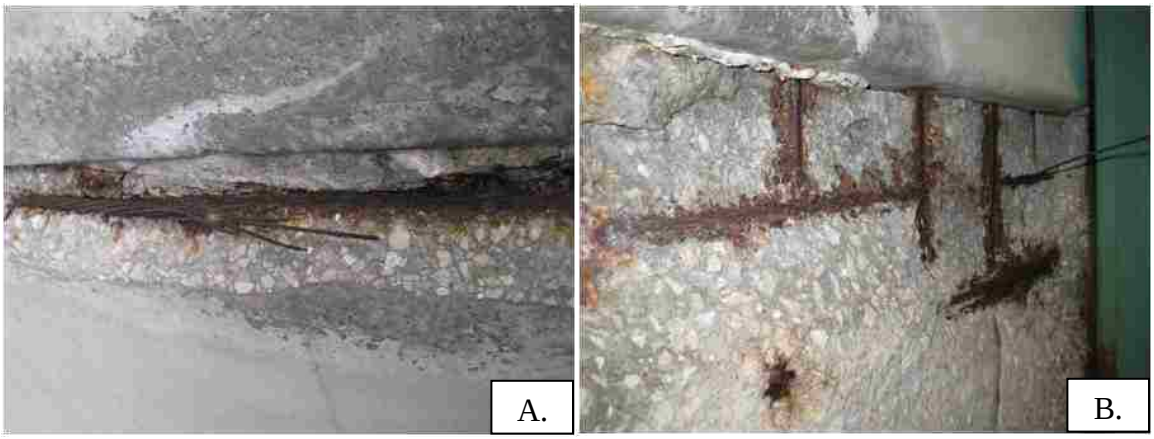

Figure 3.5: Ruptured tendons in spalled section (A. Partially ruptured tendon, B. Completely ruptured tendon) (Bridge A4067)

3.2. MEXICO BRIDGE INVESTIGATION

An in-depth investigation was performed on Bridge A4709 located in Mexico, MO that was built in 1991 as an overpass bridge to US 54. This bridge was selected for the in-depth investigation because it was identified by MoDOT bridge engineers as having the worst case spalling of all bridge decks of this type in MoDOT's inventory. This bridge investigation took place over the course of three days, August 10 and 11, 2009 and April 1, 2010. No recorded rain occurred during the week before August 10, 2009 except for small showers on the night of August 9, 2009 and the morning of August 10, 2009. Recorded rainfall in the week before the April 1, 2010 bridge investigation was approximately 0.75 in. with no rain occurring within three days of the investigation.

3.2.1. Objective. The objective of this bridge investigation was to gain information on the in-situ bridge deck properties and to determine the causes of spalling in the PPC panels. The goal was to examine thoroughly each side of the bridge deck using various non-destructive techniques to gain a full understanding of the deck and its deterioration problems. To achieve this objective, three different pieces of information needed to be obtained. First, determining the relative deterioration occurring in the CIP in various locations along the deck topping would indicate which portions of the bridge deck are more prone to deterioration and, if differences exist, a potential source of spalling. Second, knowing the locations of delaminations within the bridge deck would help determine how the water is progressing through the CIP topping and into the panels. Finally, the outer tendons on many panels are already corroded, some to the point of rupture. Information on the corrosion levels of each tendon in the panels, including the middle tendons, would aid in determining the source of corrosion.

3.2.2. Preliminary Study. Preliminary study of Bridge A4709 included a review of construction drawings as well as inspection and repair history. The bridge slab consists of a 3 in. thick partial-depth PPC panel deck with a 5.5 in. CIP topping containing epoxy-coated reinforcing steel. The spacing of the 3/8 in. prestressing tendons is 4 in. on center. The construction drawings indicate a change in the CIP reinforcement spacing in the negative moment areas of the bridge deck with respect to the remainder of the bridge. Longitudinal reinforcement in the positive moment regions of the bridge deck span is spaced at 15 in., while with additional longitudinal reinforcement in the negative moment

portion of the bridge deck span is spaced at 5 in. Long span steel plate girders with two spans of 127 ft. and 120 ft support the slab. The bridge has 116 panel joints.

No history of repair was available on the bridge deck, but in a previous in-depth investigation report performed by MoDOT bridge investigators, Wenzlick reported "the top of the deck appeared to have been sealed with Pavon In-deck probably two to three years earlier and the bigger cracks poured with oil some time since then"(Wenzlick 2008). Wenzlick performed a visual inspection on the bridge in which reflective cracking was noted in the top of the deck in the same pattern as most of the panel joints. This can result in salt and moisture intrusion through the cracks that can penetrate the panels, making them susceptible to corrosion. From the bottom side of the bridge deck, 6% of the panel joints reportedly exhibited visible signs of spalling. The spalled sections ranged from 3 to 16 in. long and 2 to 3 in. wide on the ends of the PPC panels. This was a concern because concrete pieces of this size could easily cause major damage to a car traveling on the freeway below (Wenzlick 2008).

Wenzlick's site investigation took place just after a rain that kept the deck wet for several days allowing him to make several other observations: about one third of the panels had water saturation 3 to 6 in. back from the panel joints with over 44% of the joints leaking water. In addition, 25% of the panel joints were starting to show efflorescence.

3.2.3. Techniques Used. In the present study, the bridge deck was first investigated on August 10-11, 2009 on the upper and lower surface of the bridge deck by conducting an in-depth visual inspection and using several other non-destructive techniques: GPR, half-cell potential, resistivity, and rebound hammer. The techniques selected were based on the background review presented and discussed in Section 2.4. The second analysis took place on April 1, 2010 and included the use of GPR on the top surface of the deck only.

Each test was performed according to its corresponding ASTM and AASHTO standards. In addition to these standards, additional information was obtained using ACI recommendations. Table 3.2 lists the standards referenced and followed for each particular test. ACI 201.1 also served as a guide for bridge inspection (1992).

Table 3.2: Standards referenced reviewed for each NDT used

Method	Document(s)
Visual Inspection	ACI 201.1R-92
GPR	ASTM D 6087-08
Rebound Hammer	ASTM C 805-08, ACI 228.1-03
Resistivity	ASTM D 3633-98
Half-Cell	ASTM C 876-09
Chloride Ion	ASTM C 1218-08, AASHTO T260-97
Carbonation	ACI 222R-01
Cores	ASTM C 42-04

Figure 3.6 indicates the different labeling rubric used in this study. The west lane of traffic included Panel Lines A and B, and the east lane of traffic included Panel Lines C and D. The protocol for each technique used is described in Sections 3.2.3.1-3.2.3.5. Key findings for each technique are discussed in Section 3.2.4.

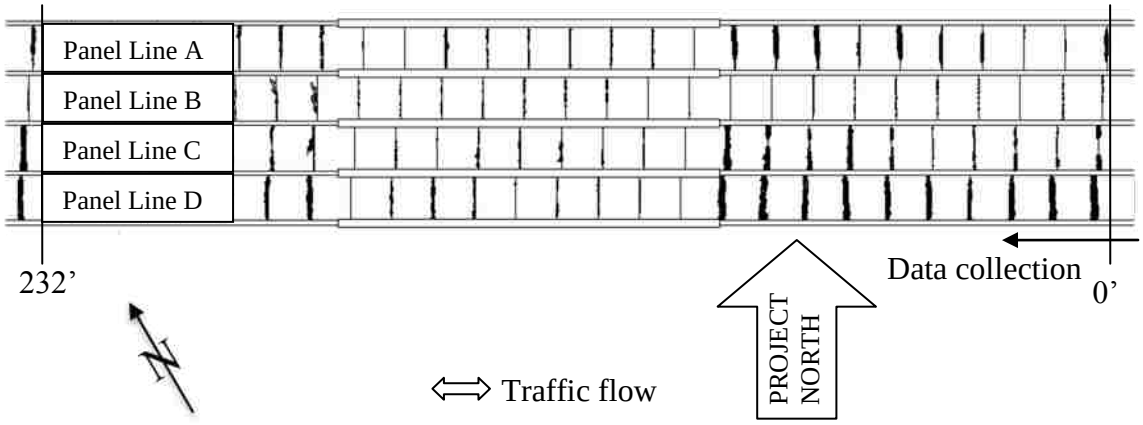

Figure 3.6: Labeling rubric used for Bridge A4709 bridge site investigation

3.2.3.1 Visual inspection. In the first investigation, an in-depth visual inspection was performed on the upper and lower portions of the bridge deck. Cracking in the CIP portion of the deck was measured and mapped. Incongruities such as spalling, efflorescence, water stains, iron stains and exposed tendons in the panels and panel joints

were mapped alongside the core locations (Section 3.2.3.5) and GPR data (Section 3.2.3.2) for comparison.

3.2.3.2 Ground penetrating radar. GPR measurements were taken from both the top and bottom surfaces of the bridge deck using a GSSI 1.5 GHz antenna. Acquiring GPR data from the bottom surface of the bridge deck typically is not done due to the inconvenience of having to couple of the GPR antenna to the bridge deck surface. The reason for taking measurements from both surfaces, however, was to attempt to obtain a better image of the cross section because the deck consists of two layers of concrete as well as multiple layers of reinforcement. Additionally, it was of particular interest to image the bottom surface to examine the condition of the prestressing tendons, which are critical to the load-carrying capacity of the deck.

Rain that had occurred the night of August 9, 2009 resulted in a wet top surface of the deck and caused possible water build-up inside the slab. For this reason, the dielectric property of moist concrete, 6.25, was used for the top bridge deck investigation with a sampling depth of 20 in. Figure 3.7 shows the different methods of GPR data acquisition. The data were acquired in 24 in. intervals in the direction parallel to traffic (Figure 3.6) using a cart and a survey wheel (Figure 3.7A).

Reinforcement can best be detected by acquiring the GPR data perpendicular to its axial orientation. Therefore, the upper deck GPR data was acquired along longitudinal traverses with the intention of imaging the prestressing tendons in the PPC panels oriented in the transverse direction of the bridge. For the same reason, GPR data were acquired along longitudinal traverses on the bottom surface of the deck (Figure 3.7B) with a special apparatus consisting of a small survey wheel and the antenna attached to an extended handle. Data were acquired on the panel ends next to the girders as well as in the middle of each panel.

In both cases, data were acquired using the distance sampling technique. The distance sampling technique uses a survey wheel to calculate distance as data are being gathered, and collection of data only occurs when the survey wheel is rotating in a given direction. A second sampling technique, the time sampling technique, acquires data over a given amount of time. With the time sampling technique, for example, a picture of the entire panel can be acquired, but the distance between the tendons is more difficult to

estimate accurately; however, if the distance between tendons is known, a distance scale can be superimposed during data processing.

Figure 3.7: Process of acquiring GPR data in the longitudinal direction (A. Top surface acquisition using a cart, B. Bottom surface acquisition using a survey wheel apparatus)

Data acquired from the bottom surface of the bridge deck required the use of a lift and the closing of one lane of traffic. In this investigation, the size of the lift restricted data acquisition to only one panel length at a time. Also, miscellaneous steel framing between the girders (Figure 3.7B) made it impossible to acquire data the full length of the panels in these areas. In addition, the use of the survey wheel apparatus (Figure 3.7B) made it difficult to acquire data from the full length of the panels because the survey wheel was unable to rotate properly over spalled areas as well as various mechanical problems with the wheel. Despite this limitation, however, the data acquired from the bottom surface proved useful as will be discussed in Section 4.3.2.

The second investigation included the use of GPR on the top surface of the deck only. The first GPR data acquisition indicated the top layer of rebar in the CIP topping is oriented in the longitudinal direction, which masked much of the rebar below it. For this reason, a deterioration map was unable to be developed with data from the first

investigation. The second GPR data acquisition was gathered in the transverse direction, perpendicular to traffic flow, which allowed clear images of the upper mat of rebar. Because the thickness of the bridge deck was determined significantly less than 12 in. thick from the longitudinal scan data, a sampling depth of 12 in. was chosen for the transverse GPR scan; however a 20 in. depth was used for the longitudinal scan. A dielectric constant of 6.25, typical of concrete, was selected.

3.2.3.3 Half-cell potential and resistivity. Additional NDT data (half-cell potential and resistivity) were acquired on the bridge deck in the first investigation with the objective of estimating the corrosion rate of the prestressing tendons. Half-cell potential and resistivity data were also acquired on representative panels to complement the GPR control. Due to time constraints, the half-cell potential test was only performed near tendons that were already exposed due to spalling. Resistivity was gathered only from the underside of the panels. Resistivity testing was attempted on the CIP portion of the bridge deck, but was unsuccessful in obtaining a good electrical connection to the topping. This may have been due to a coating applied to the bridge deck.

3.2.3.4 Rebound hammer. The rebound hammer test was performed on 27 representative panels in an attempt to determine an approximate concrete strength value as well as relative concrete strengths between the panels. This testing was performed by using lifts on the bottom side of the bridge deck surface in the vertical direction. The rebound hammer used was a manual device that included a US patent number of 2664743; however, no additional data on the manufacturer of the hammer was obtained. A total of 8-12 readings were obtained on various locations of each panel tested. Rebound hammer test data gathered on select PPC panels provided information on the relative concrete strength of the panels.

3.2.3.5 Cores. In addition to the non-destructive testing described in Sections 3.2.3.1-3.2.3.4, cores were taken from ten different locations in the CIP portion of the bridge deck to serve as ground truth for the GPR data. The GPR data were used to designate the location of the cores by identifying anomalous areas in the bridge deck. The presence of both chloride and moisture correlates with rebar corrosion, so the cores were tested for chloride ion content and carbonation.

3.2.4. Findings. Much of the data provided from the bridge investigation yielded the expected results. Sections 3.2.4.1- 3.2.4.6 summarize key the findings and information provided by each technique described in Section 3.2.3. Complete data are presented in Appendix C.

3.2.4.1 Visual inspection. The visual inspection of the bridge top surface confirmed the reflective cracking described in the preliminary study discussed in Section 3.2.2 (Wenzlick 2008). Crack widths were unable to be measured due to the crack sealant that was applied to the cracks to prevent water ingress. The visual inspection of the bridge panels from the bottom surface included a map of all panels that indicated areas of spalling, panel cracking, water stains and efflorescence at the joints. In addition, discoloration lines found on the bottom surface of the panels were mapped as well as cracking on the top surface of the deck.

Of the 116 total panel joints, 15 of the joints, or 13%, have started to spall and an additional 19 joints have begun cracking at the edges, an early stage of spalling. Spalling was limited to one side of the bridge, Panel Lines C and D. The southernmost line of panels, Panel Line D, included nine of the spalled joints while the panel line just north of Panel Line D, Panel Line C, included six spalled joints. Even though Panel Line C is also experiencing the spalling problem, the extent of the spalling is not as advanced as that found in Panel Line D. Figure 3.8 shows a full bridge deck bottom surface view of the spalled panel joints. Of the 15 spalled joints, tendons were exposed in 14 joints. Cracking in the panels was limited to Panel Line A, C and D. The cracking was limited to the panel joints. Figure 3.9 shows the locations of panel joints with cracking, but not yet spalling. No additional cracking was observed in the other portions of the panels.

Efflorescence observed in 88 panel joints tended to be less prevalent in the panels placed in the middle and at the ends of the bridge deck. The same is true for water stains observed at the panels joints with the exception of panel joints located in Panel Line B. Only four of the 29 panel joints in Panel Line B contained water stains.

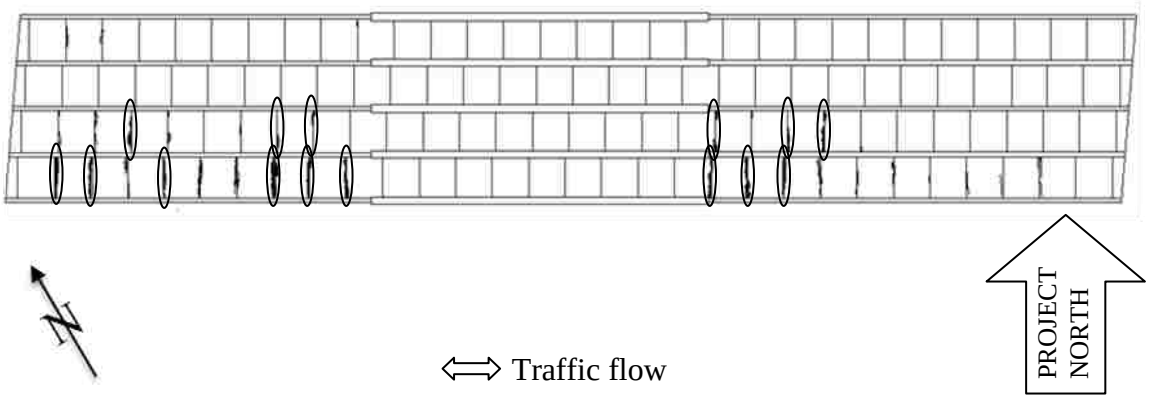

Figure 3.8: Panel spalling locations on Bridge A4709 in Mexico, MO

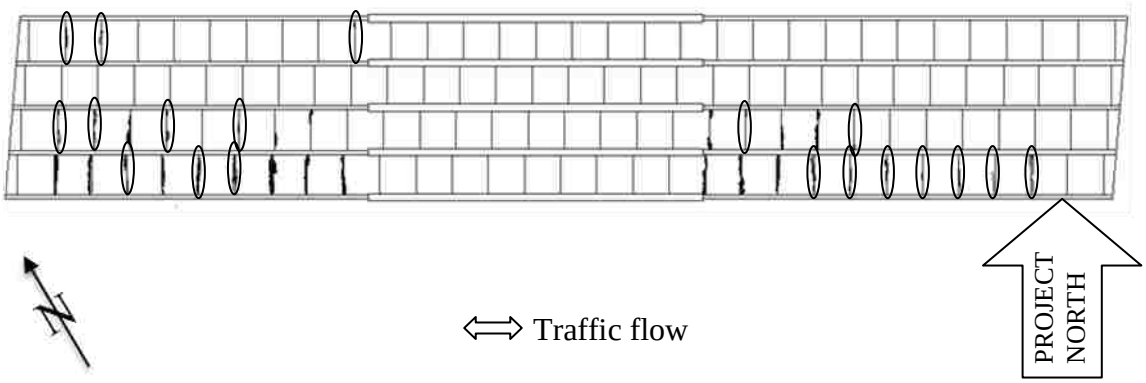

Figure 3.9: Panel cracking locations on Bridge A4709 in Mexico, MO

Of the 116 full size panels, 96 included discoloration lines in the middle of the panels that had a spacing of 4 in. on center. Most of these lines had a grayish tent to them. Some, however, did consist of a more brownish rust color. No cracking was observed along these lines, so no correlation between the lines and the observed defects could be found. Mapping of all deterioration observed in the panels is compiled in Appendix C.

Transverse cracking observed in the CIP topping stretched in a diagonal "zig-zag" across the bridge deck, as highlighted in Figure 3.10, and extended to the concrete barriers located at the edges of the deck. These cracks looked to be a result of reflective cracking above the panel joints. No longitudinal cracking was observed in the bridge deck. See Appendix C for the deck crack mapping on the top surface of the bridge deck.

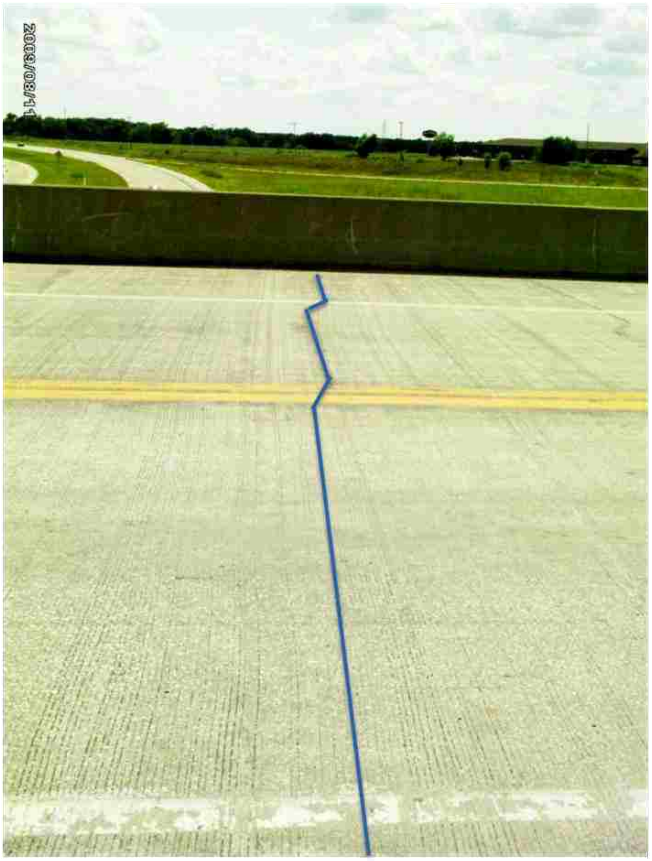

Figure 3.10: Reflective cracking observed on the top surface of bridge deck (highlighted for clarity)

3.2.4.2 Ground penetrating radar. GPR data acquisition on the top surface of the bridge deck consisted of two different scans, one in the longitudinal direction of the bridge deck and one in the transverse direction. Because the orientation of the upper mat of steel was not clear and information about the prestressing tendons was needed, the longitudinal direction scan was performed first (Section 3.2.3.2). The longitudinal scan was performed on August 10, 2009 in an attempt to locate delaminations within the CIP and panel interface and to determine relative corrosion levels of the prestressing tendons. The longitudinal data obtained consisted of numerous anomalies, which made it impossible to determine depths of reinforcement. As a result, a second GPR scan in the transverse direction, conducted on April 1, 2010, was performed to develop a deterioration map of the bridge deck. This was only possible in the transverse direction because the upper most mat of reinforcement ran longitudinally along the bridge deck.

The longitudinal investigation consisted of 19 different scan lines 232 feet long. The location and scan directions of all of the files obtained during the GPR data acquisition on the top surface of the bridge deck for the longitudinal scan is compiled in Appendix C. Figure 3.11 shows the labeling rubric used for each two-foot increment from the deck drain.

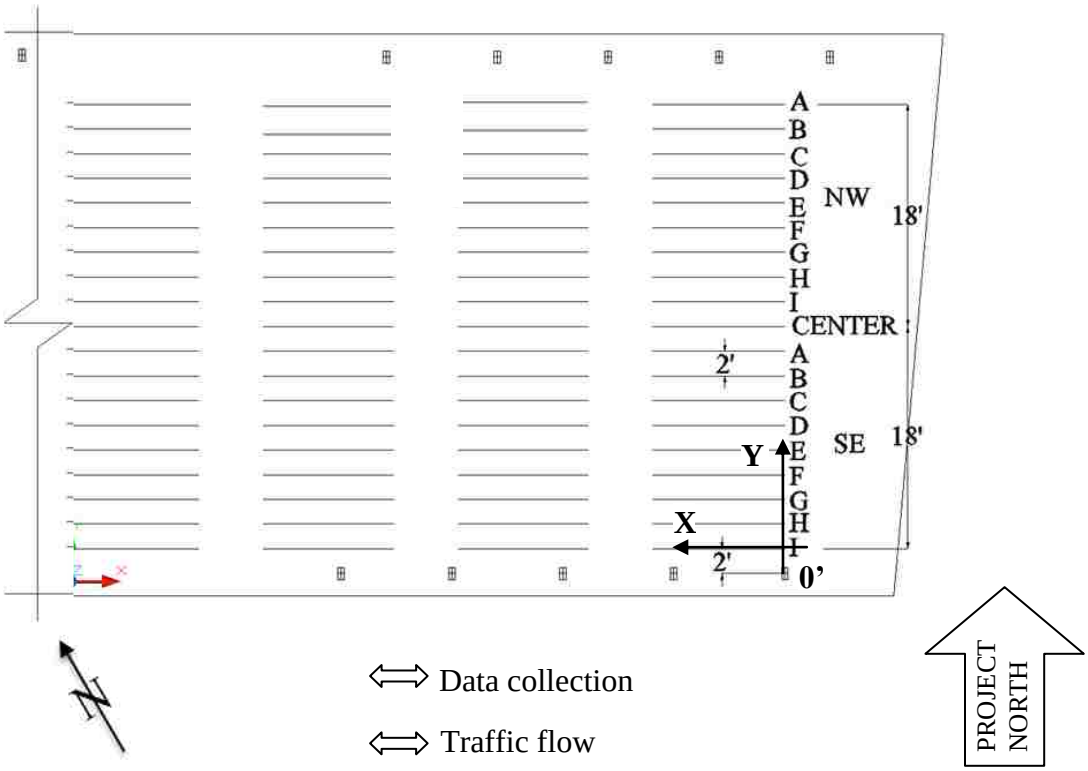

Figure 3.11: Labeling rubric for longitudinal GPR data acquisition

The transverse investigation consisted of 124 different scan lines 38 feet long. The labeling rubric for this investigation, shown in Figure 3.12, indicates the scan locations with respect to the bridge drains and girder locations. The file numbers and directions of scans with respect to the project north shown in Figure 3.12 are included in Appendix C.

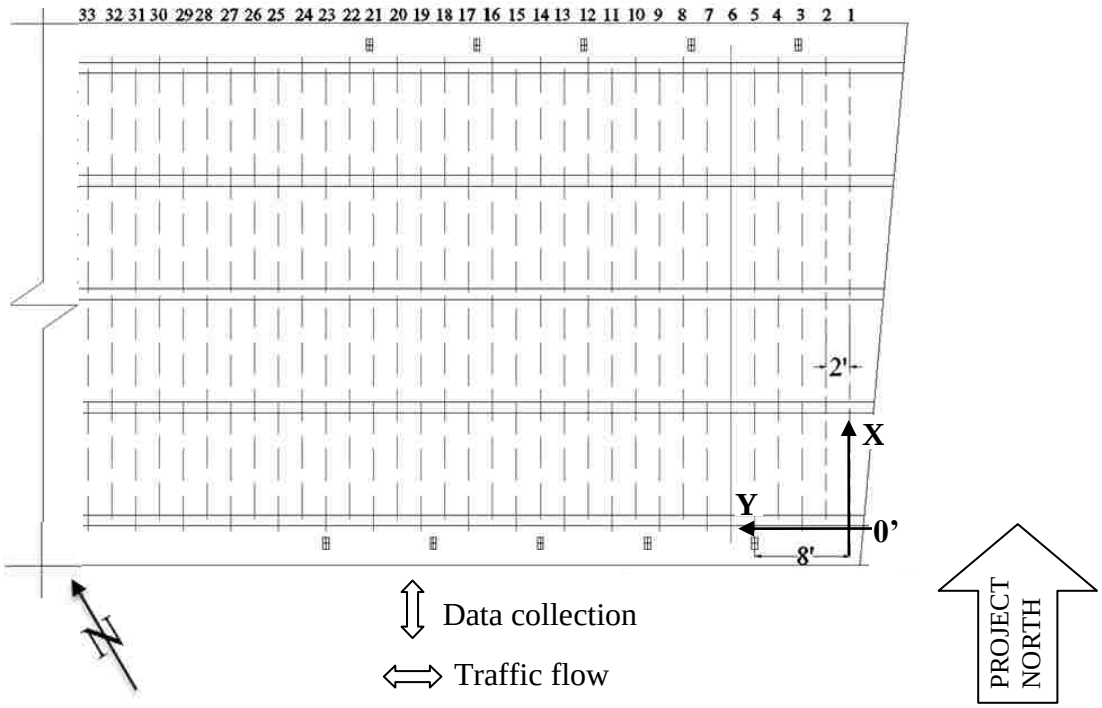

Figure 3.12: Labeling rubric for transverse GPR data acquisition

Following the data acquisition, the individual GPR profiles were processed using GSSI RADAN 6.5 bridge assessment module. This module was utilized in resizing, fixing the time-zero orientation and picking reinforcement reflection points in each data file. RADAN reinforcement reflection-picking is an automated feature that automatically picks the estimated location of each rebar. The reinforcement reflection-picking tool was only used on the transverse scan data and the panel scan data (bottom surface), because the longitudinal scan data included anomalies that masked the location of the reinforcement in many areas of the data. This tool located areas of delaminations and cracking in CIP topping by determining areas of lower amplitudes or longer travel times. Because the panels are staggered at 10 in. intervals and the transverse GPR data was acquired on 2 ft. intervals, only portions of the reflective cracks were obtained in this scan. Manual review and comparison of the longitudinal scan data aided in detecting additional areas of deterioration, particularly possible areas of delaminations.

Panel joints could be accurately located on the longitudinal GPR profiles obtained from the top surface of the bridge deck, in large part because they are characterized by

deteriorated concrete and propagate in the transverse direction across the bridge deck. Figure 3.13 shows GPR data acquired along the top surface of the deck along Panel Line D; the locations of two joints are highlighted the figure. Anomalously high travel times (large apparent depths) and anomalously low amplitudes characterize the GPR image of reinforcing bar in immediate proximity to the panel joints. Both features are normally indicative of concrete degradation. In addition, the arrival time (apparent depth) of the reflection from the base of the concrete slab is anomalously high, presumably because of deterioration of the concrete. These interpretations are consistent with the visual inspection data. As described in Section 3.2.4.1, reflective cracking was observed in the CIP portion of the bridge deck, and water stains and cracking were observed in the PPC panels of the bridge deck in these locations.

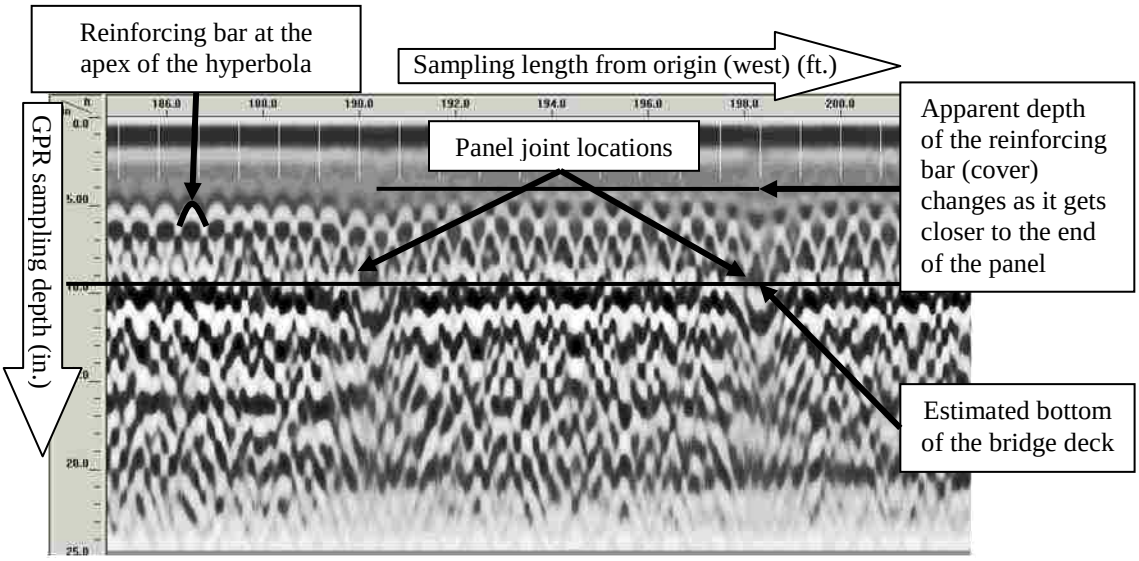

Figure 3.13: GPR data acquired on the top surface of the deck along Panel Line D during the longitudinal scan

Using interpretation software, it is possible to view a graph of the pulse magnitude versus travel time in any segment of the data profile. The pulse magnitude indicates the amount by which dielectric properties differ. For example, the larger the pulse magnitude is the greater the difference in dielectric permittivity of the two

materials. Figure 3.14 depicts GPR data acquired in the longitudinal direction from the top surface of the bridge deck over Panel Line C. The graph to the right of the profile depicts pulse magnitude along the horizontal axis versus travel time along the vertical axis. The wavelet encircled by a solid line in Figure 3.14A is the reflected signal from the bottom of the bridge deck in the middle of a panel where there is little to no visual evidence of degradation. It has maximum amplitude of ± 0.4. In comparison, Figure 3.14B shows the GPR reflection from the bottom of the bridge deck near a panel joint where there is visual evidence of degradation. The relatively low pulse amplitude supports the thesis that degradation is occurring in proximity to the joint.

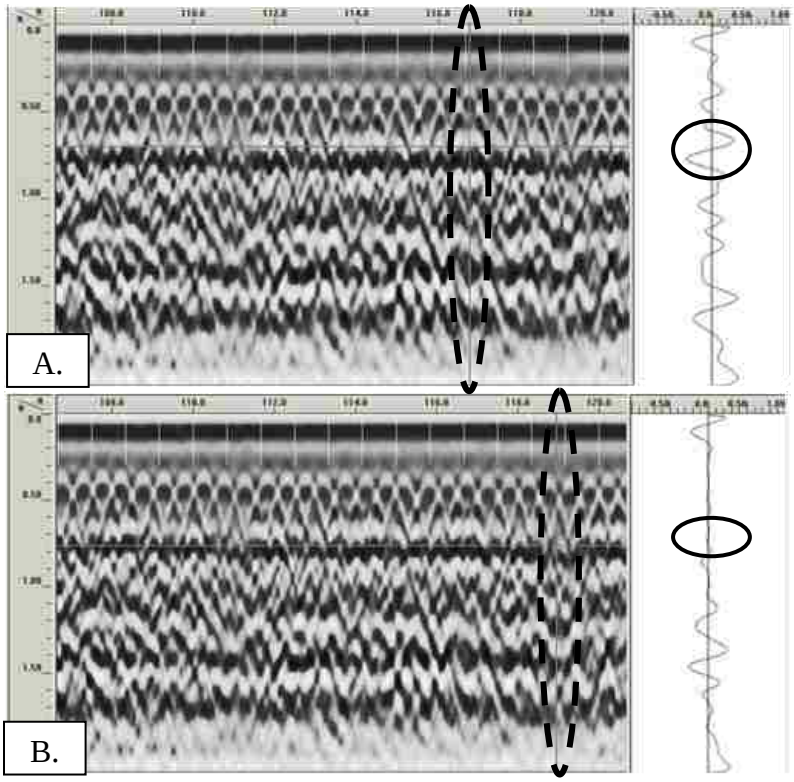

Figure 3.14: GPR data obtained during the longitudinal scan, and graph showing pulse magnitude vs. travel time (A. Non-degraded or non-delaminated area, B. Degraded or delaminated area)

In an attempt to see all deterioration within the thickness of the bridge deck, comparison of data acquired from the top and bottom surfaces of the bridge deck was

completed. Figure 3.15 shows data acquired from both the top and bottom surfaces of the bridge deck on August 11, 2009. Figure 3.15A shows data acquired from the top surface of the bridge deck in the longitudinal direction over a length of 8 ft. Figure 3.15B shows data acquired from the bottom surface of the bridge deck of the 8 ft. wide panel located in the area corresponding to Figure 3.15A. Both figures show increasing depths to reinforcement near the edges of the data (panel joint locations) indicating degradation.

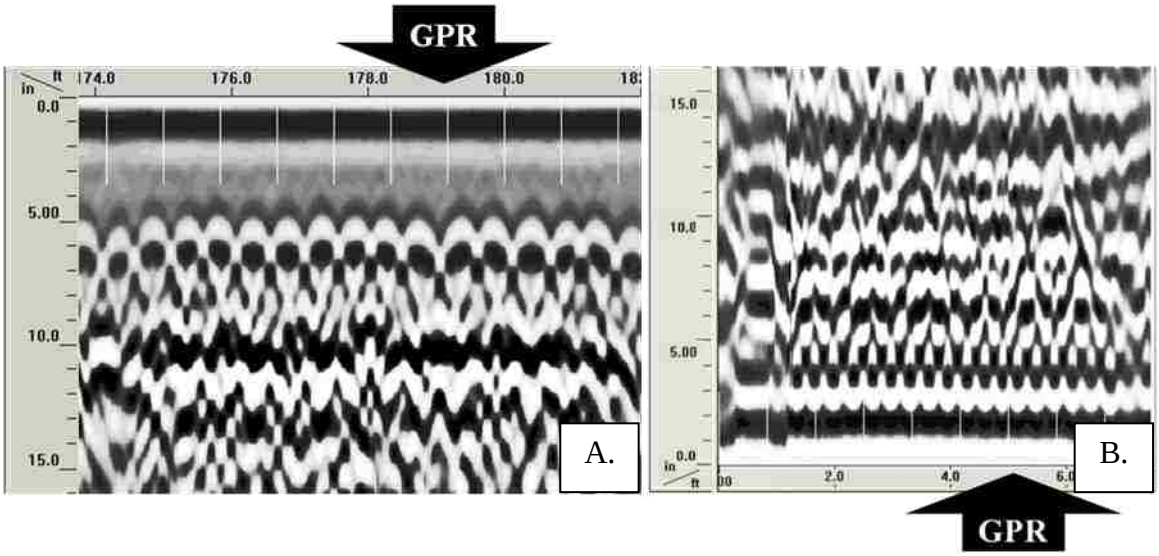

Figure 3.15: GPR data acquired on August 11, 2009 (A. Data acquired from the top surface of the bridge deck, B. Data acquired from the bottom surface of the bridge deck)

The varying degree of degradation from one panel line to the next can be seen in Figure 3.16. This figure shows GPR data taken in the longitudinal direction from the top of the bridge deck in the four different panel lines at the same location measured along the length of the bridge. The solid lines indicate the GPR representation (apparent location) of the bottom of the bridge deck in that area. When the data for the four panel lines are compared, varying (apparent) reinforcing bar depths and concrete thicknesses are observed. As expected, apparent reinforcing depths and concrete thicknesses are greatest on Panel Line D because it is the most deteriorated based on the visual inspection data.

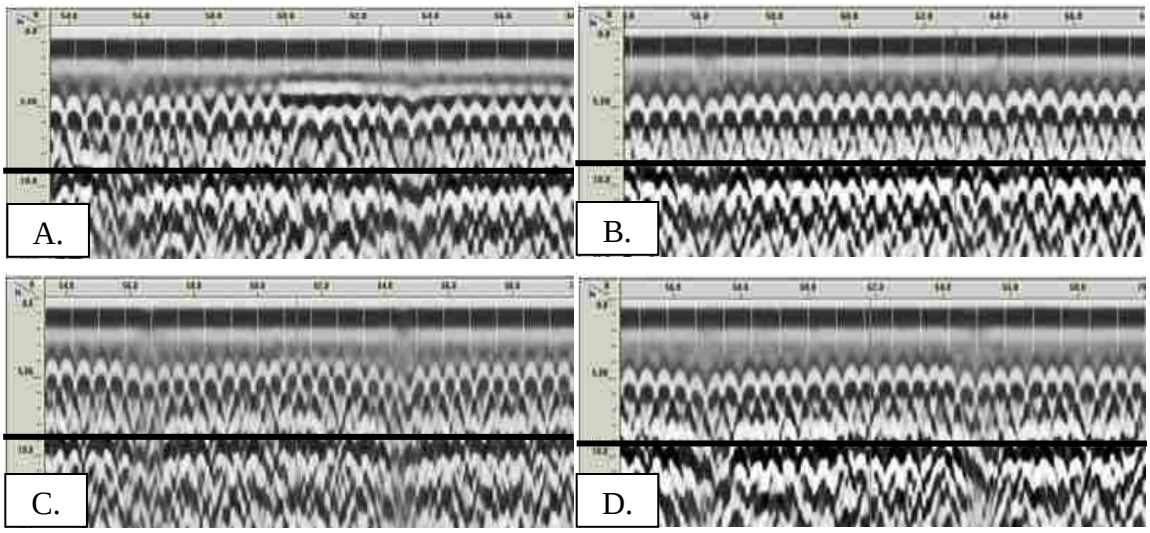

Figure 3.16: Apparent depth of deck from GPR shots obtained on top of the bridge deck in the longitudinal direction over varying panel lines (A. Panel Line A = 9.2 in, B. Panel Line B = 8.7 in., C. Panel Line C = 8.8 in., D. Panel Line D = 9.3 in.)

Additional graphical representation of relative deterioration was depicted in contour maps of the bridge deck. Using Radan interpretation software, rebar reflection signals can be used to create a contour map of the rebar reflection amplitudes and travel times in the bridge deck (GSSI 2007). The contour map of the rebar reflection amplitudes from the upper mat of rebar is shown in Figure 3.17. Once the EM energy is emitted into the concrete, the energy can be absorbed, refracted or reflected back to the antenna. The amount by which the energy is absorbed, reflected or refracted greatly depends on the complex permittivity of the material (Maierhofer 2003). The permittivity of the material is influenced by the temperature, moisture content and salt content of the material as well as the material pore structure and the EM energy pulse frequency (Maierhofer 2003). This map, based on data obtained in the transverse direction, shows that relatively higher amplitude signals existed in the ends of the bridge deck. The amplitude of the signal is a measurement of dielectric permittivity contrasts between the concrete and the rebar and is recorded in decibels (dB). Smaller amplitudes, similar to those shown in Figure 3.14B, indicate areas of increased deterioration. According to the contour map in Figure 3.17 less deterioration is occurring at the ends and middle portions of the bridge deck.

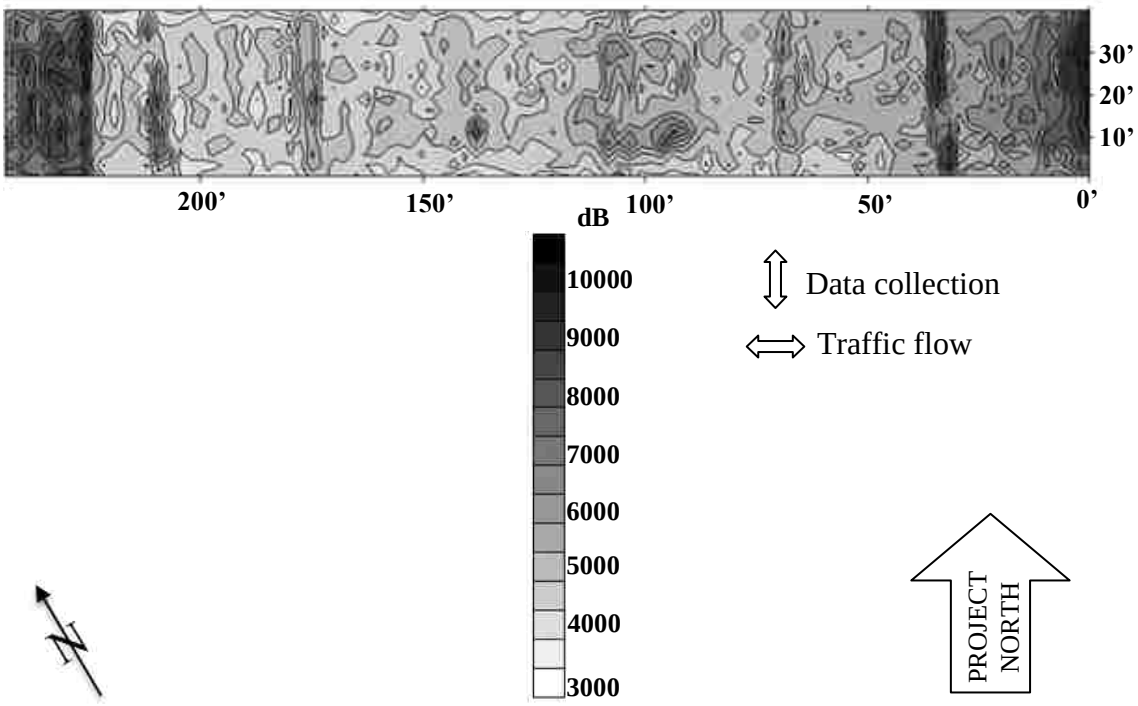

Figure 3.17: Contour map created from GPR data for upper mat rebar reflection amplitudes

A contour map of the travel times to the upper mat of rebar was also constructed. Figure 3.18 shows the signal travel times to the upper mat of rebar in nanoseconds (ns). The velocity at which EM energy travels through a material is dependent upon the material dielectric constant, or dielectric permittivity. As the dielectric constant of the material increases, the velocity at which EM energy propagates through the given material decreases. Normally, the longer travel times would indicate more deterioration in the system; however, this method of deterioration mapping may be deceiving.

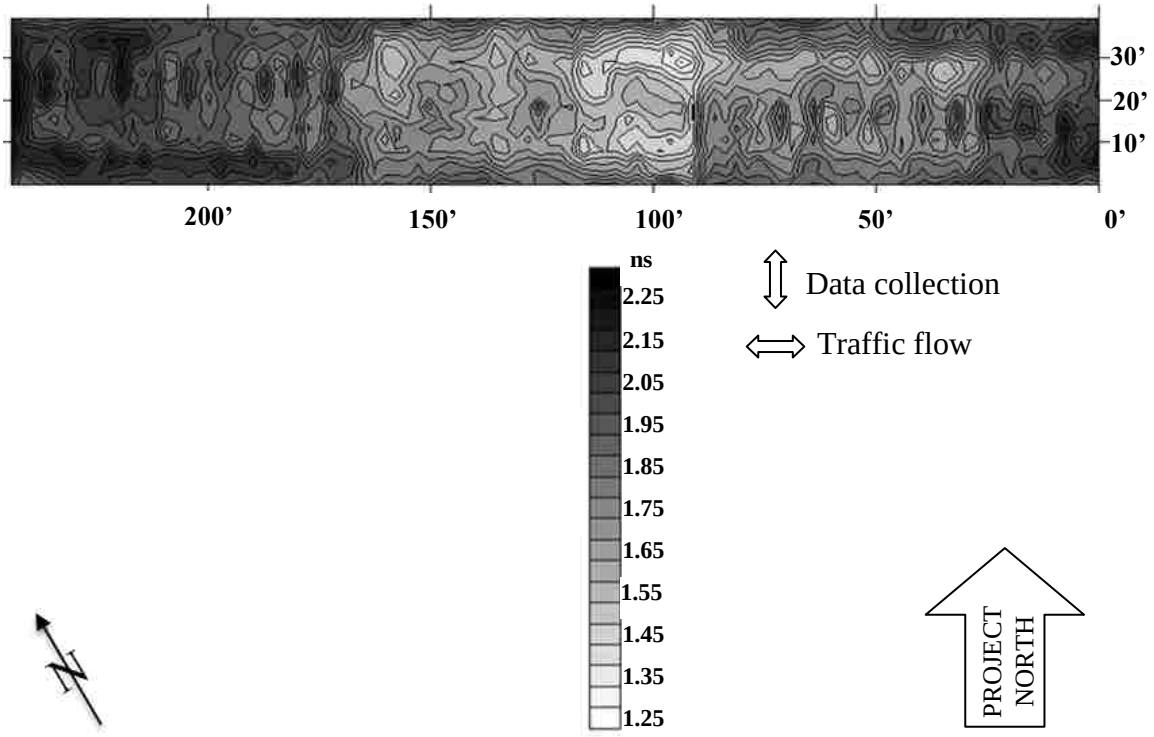

Figure 3.18: Contour map created from GPR data for the signal travel times to the upper mat of rebar

3.2.4.3 Half-cell potential. Half-cell data were obtained on August 11, 2009 using a Canin Corrosion Analyzing Instrument from Proceq. The average temperature during data acquisition was 85 degrees Fahrenheit. The half-cell potential was performed on six different tendons. Due to the hardness of the panel concrete and time limitations, electrical connections were only made to tendons that were already exposed. Readings taken over these tendons approximated a corrosion rate by indicating the severity of corrosion. Some of the tendons were fully exposed and partially fractured while others were only partially exposed. According to the operating instructions manual, each of the tendons tested provided readings indicating that corrosion was a high probability (Canin 2007). As expected, higher corrosion values were found on the fully exposed tendons versus the partially exposed tendons. See Appendix C for the compiled data.

3.2.4.4 Resistivity. Resistivity measurements obtained on August 11, 2009 on 22 representative panels showed only one panel having the possibility of corrosion according to Canin's operating instructions manual (Canin 2007). The Canin Corrosion

Analyzing Instrument from Proceq was again used for the resistivity data acquisition by attaching the four-prong probe device. Each resistivity measurement consists of two different readings. The first reading indicates the quality of electrical connectivity to the concrete, which indicates whether the reading is reliable. This reading depends on the current percentage passed from the four-prong probe to the concrete. A reading with a current percentage between 50% and 100% indicates a reliable reading, between 20% and 50% indicates the value is not exact and any readings below 20% indicate a very poor connection between the four-prong probe and the concrete of interest (Canin 2007). The second reading indicates the probability of corrosion by determining the voltage reading. Resistance readings below 8 kΩcm indicate corrosion is likely, between 8 and 12 kΩcm indicate corrosion is possible and above 12 kΩcm indicate corrosion is unlikely (Canin 2007). All recorded data are presented in Appendix C. The one panel with a voltage reading low enough to indicate that corrosion was possible exhibited spalling in both panel joints. This panel was one of the worst case panels found during the bottom deck visual inspection described in Section 3.2.3.1.

3.2.4.5 Rebound hammer. Rebound hammer testing was conducted on August 10-11, 2009 on representative bridge deck panels. The rebound number represents the distance the hammer travels once struck against the concrete with a given force. The rebound distance is dependent upon the amount of kinetic energy behind the hammer before it impacts the concrete and the amount of energy the concrete absorbs (ACI 228.1 2003). The amount of energy the concrete absorbs depends on the compressive stress-strain relationship of the concrete. Therefore, concretes with the same compressive strengths may have different rebound numbers if their stiffnesses differ. In addition, readings taken on wet surfaces will result in lower rebound numbers, and ultimately lower concrete strength values, than those taken on dry surfaces because dry concrete surfaces are more brittle. As was previously mentioned in Section 3.2, rain occurred the night before several panels were tested. The panels with numbers less than 20 in their rubric were tested the day after this rainfall (see Table 3.3 below). Finally, rebound numbers can depend on the location of the rebound test. For example, a hammer struck over a void in the concrete or rebar with shallow concrete cover will result in a lower

rebound numbers while a hammer struck over hard aggregate will yield higher rebound numbers.

To account and adjust for these possibilities, ASTM C 805 specifies that 10 readings be taken for a test and averaged (2008). In the case of this research, more than 10 readings were often taken from each panel, in which case the two outlying values were disregarded. If any of the 10 rebound numbers differed from the average by more than six units, the readings were disregarded and a new average was obtained. If more than two readings differed from the second average by more than six units, the entire data was disregarded. No data was discarded in this research. The entire data and the process of elimination are presented in Appendix C.

Because no other concrete compression testing could be conducted on the bridge deck, the rebound hammer's manufacturers curve was used to determine a general concrete strength once the average rebound numbers were obtained. The average compressive strength, rounded to the nearest 10 psi, for each panel tested is shown in Table 3.3. It should be noted that these values are very low for a specified concrete of 5000 psi, which indicates poor rebound hammer calibration.

In an attempt to better calibrate the data, the rebound hammer test was performed on a panel constructed on December 29, 2009. This panel was cast and stored indoors from the time of its casting. The rebound testing performed on the test panel was vertically downward in contrast to the field testing, which was performed vertically upward. Three 4 in. by 8 in. cylinders that were cast from the same concrete and stored in a similar matter were tested for their concrete strength at 65 days from the cast date. The average strength of these cylinders was 6360 psi. The rebound hammer results, however, showed an average concrete strength of only 3630 psi. Using this information, the rebound numbers and their corresponding concrete compressive strengths were calibrated. This data, however, was only used for comparing relative concrete strengths of different panels.

Table 3.3: Rebound hammer compressive strength values for each panel (values reported are the average of 10 readings)

Panel Number	Average compressive strength determined using manufacture's curve (psi)	Average compressive strength calibrated with panel results (psi)
A23-A24	1610	6350
D24-D25[2]	2620	7520
D23-D24[2]	2660	7590
B25-B26	2670	7650
C26-C27[2]	2850	7810
C24-C25[2]	2950	7930
A26-A27	3010	7970
C23-C24[2]	3050	8020
A25-A26	3070	8150
B26-B27	3130	8120
A24-A25	3180	7630
B24-B25	3190	8170
B23-B24	3240	8200
D25-D26[2]	3380	8350
A11-A12	3480	8420
C13-C14	3480	8420
C25-C26[2]	3510	8450
B13-B14	3680	8610
A13-A14	3690	8310
C12-C13[1]	3710	8590
B12-B13	3720	8640
A12-A13	3740	8640
C14-C15	3910	8780
B14-B15	3980	8830
D14-D15	4030	8870
D13-D14	4420	9210
D12-D13[1]	4500	9260

[1] Panels with one cracked and/or spalled edge
[2] Panels with two cracked and/or spalled edges

3.2.4.6 Carbonation and chloride ion testing. Ten different cores obtained on the shoulders of the bridge deck were used to correlate GPR data by determining reinforcement and carbonation depths and chloride ion contents in the CIP topping. These

cores were intended to penetrate the CIP topping only and not the precast panels. The cores also verified the concrete cover to various mats of reinforcement and the thickness of CIP topping in many places.

Table 3.4 shows a summary of the core data obtained. Chloride ion values were determined using AASHTO T-260 (1997). The corrosion threshold for reinforcing steel in concrete is generally 1.0 to 1.5 lb/yd^3 (Keplar et al. 2000). Only three of the cores, C-2, C-3 and C-10, possessed chloride ion contents high enough to promote corrosion in the presence of adequate moisture and temperature.

Table 3.4: Summary of core data

Core ID	Depth of core (in)	Depth of reinforcement encountered (in.)	Bottom surface of core	Sampling Depths (in.)	lb Cl-/yd^3	Corrosion Possibility	Carbonation Depth (mm)
C-1	4.5	4.5	broken	3	0.332	Not Likely	1 mm
C-2	5.5	None	smooth	3	0.224	Not Likely	1 mm or less
				4	1.445	Possible	
C-3	6.125	None	smooth	3	2.610	Possible	1 mm
				4	2.614	Possible	
				5	1.377	Possible	
C-4	3.125	3.125	broken	2	0.643	Not Likely	less than 1 mm
C-5	6.5	None	broken	3	0.257	Not Likely	less than 1 mm
				4	0.363	Not Likely	
				5	0.115	Not Likely	
C-6	6.625	3.875	broken	3	0.263	Not Likely	1-2 mm
				4	0.100	Not Likely	
				5	0.252	Not Likely	
C-7	6.5	4.75	smooth	3	0.279	Not Likely	1- 2 mm
				4	0.181	Not Likely	
				5	0.268	Not Likely	
C-8	6.375	4.5	smooth	3	0.221	Not Likely	1 mm, 11 mm at large void
				4	0.183	Not Likely	
				5	0.212	Not Likely	
C-9	7	6.875	broken	3	0.189	Not Likely	1 mm, 11 mm in crack
				4	0.328	Not Likely	
				5	0.230	Not Likely	
C-10	7.125	4.25	broken	3	6.532	Possible	less than 1 mm
				4	5.393	Possible	
				5	6.051	Possible	

3.3. ADDITIONAL ST. LOUIS BRIDGE INVESTIGATIONS

A visual inspection was conducted on Bridges A4067 and A4709 located in the surrounding St. Louis area on March 29, 2010. These bridges were also reported having the spalling problem and were investigated during the investigation discussed in Section 3.1. Bridge A4067, constructed in 1986, serves as an over pass to MO-141 and consists of three spans. Bridge A4705, constructed in 1990, serves as an over pass to Route 40/I-64 and consists of four spans. St. Louis received approximately 1 in. of rainfall the week preceding the bridge investigations. Figure 3.19 shows an ariel view of each bridge along with its corresponding bridge label.

Figure 3.19: Bridge A4067 and A4705 ariel view (maps.google.com)

3.3.1. Objective. The objective of this investigation to was to confirm or disprove a theory created from Bridge A4709 findings concerning the additional negative moment reinforcement found in the middle of the bridge deck (see Section 3.2.4). The results showed less deterioration occurred in panels located under this additional reinforcement. Additionally, because Bridge A4709 was only a two span bridge, additional bridges with

more than 2 spans were selected for this investigation with the expectation that more deterioration would be seen in the areas without the additional reinforcement in multiple locations of the bridge deck.

3.3.2. Preliminary Study. According to the bridge drawings, both bridges use partial-depth PPC panels as structural stay-in-place formwork for a 5.5 in. CIP topping. A panel thickness of 3 in. is specified in the drawings for Bridge A4705. This is MoDOT's current specified panel thickness; however, drawings of Bridge A4067 specify a panel thickness of 3.5 in. Besides their thicknesses, the panels in each bridge deck are the same consisting of 3/8 in. prestressing strands spaced at 4.5 in. on center. Long span steel plate girders support each bridge deck.

The bridge drawings indicated a similar change in spacing of upper mat reinforcement in both bridges as that observed in Bridge A4709 (see Section 3.2.2). The upper mat of reinforcement changes from a 15 in. spacing in the positive moment regions of the bridge deck to a 5 in. spacing in the negative moment regions of the bridge deck; however, Bridges A4067 and A4705 consisted of three to four spans and multiple negative moment regions. Bridge A4709 consisted of only two spans with one negative moment region.

3.3.3. Findings. Highways 141 and 40 have high traffic volumes throughout much of the day. Due to the limitations on time and traffic control, many panels located in the middle of the bridge deck spans were difficult to see. The main objective of the bridge investigation was accomplished by viewing as many panels as possible from behind the guardrail or from one lane closure. These positions allowed a clear viewing of all of the panels within 50 feet of each pier.

Figure 3.20 shows the panel layout of Bridge A4067 with the labeling rubric used for the investigation. The figure also highlights the locations of additional reinforcement in the CIP bridge deck topping as specified in the bridge drawings. Span length dimensions as well as lengths of areas with extra reinforcement are also shown on Figure 3.20. Observed spalled joints are circled and waterstained joints are marked with a dotted line.

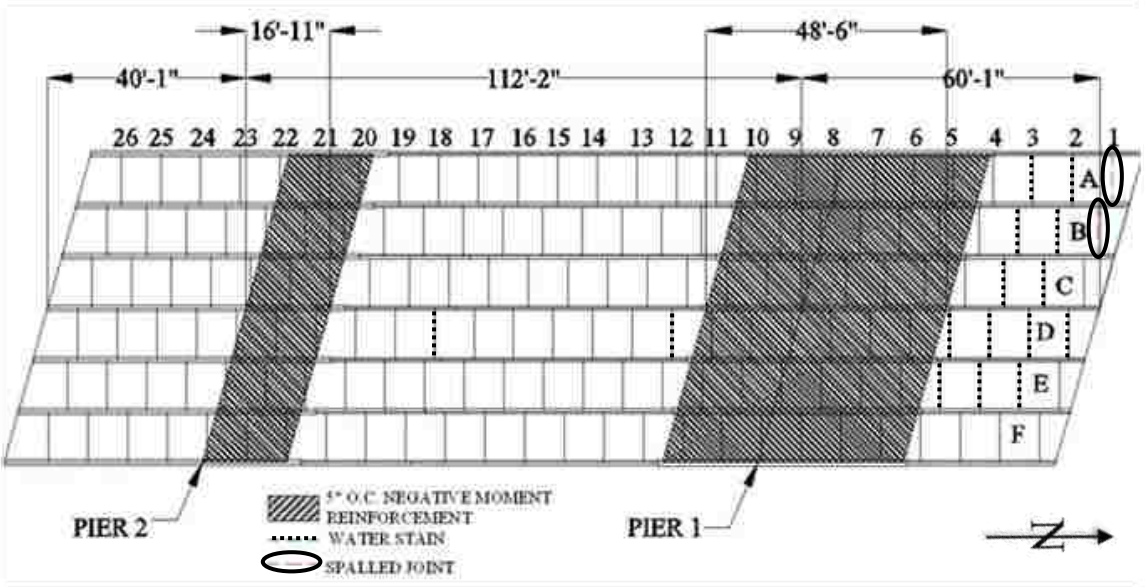

Figure 3.20: Visual inspection results for Bridge A4067

Figure 3.21 shows the panel layout and visual inspection results for Bridge A4705. A similar labeling rubric and marking system to that used for Bridge A4067 in Figure 3.20 was also used for Bridge A4705. Bridges A4067 and A4705 did not include deterioration as extensive as that observed Bridge A4709 (see Section 3.2.4.1). Only two spalled panel joints were identified in Bridge A4067 and three in Bridge A4705. Due to the lack of spalled panel joints in the bridge decks, the joints with water staining deterioration were dually observed and recorded. No spalled or waterstained joints were observed in panel joints located under the areas containing the additional negative moment reinforcement in the CIP topping.

Figure 3.22 shows the worst case spalling found in Bridge A4067. The outermost tendon is completely ruptured, and several sections of rebar are fully exposed. The worst deterioration on this bridge deck occurred at the edge of the west abutment. The bridge deck slopes downward from west to east at a grade of -5.00%. Given this slope, it is logical to conclude that the excess deterioration is not caused by the ponding of water in this area.

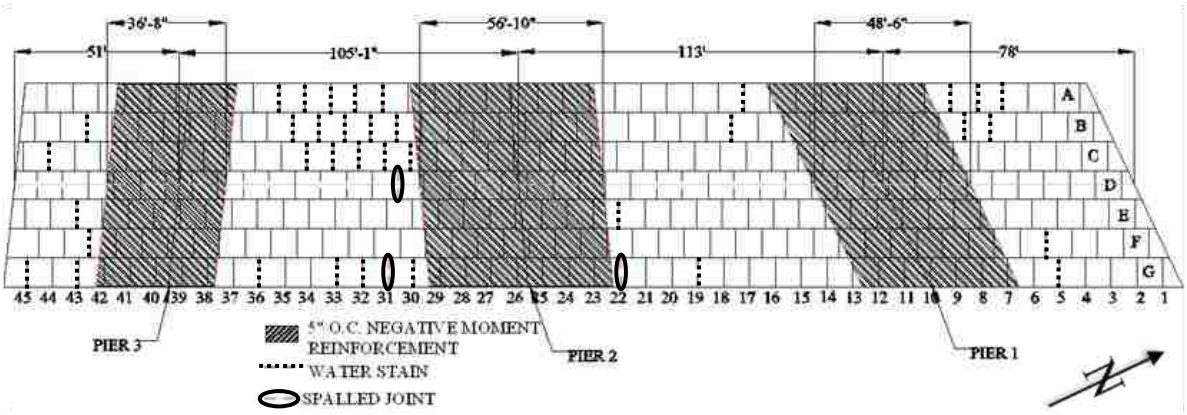

Figure 3.21: Visual inspection results for Bridge A4705

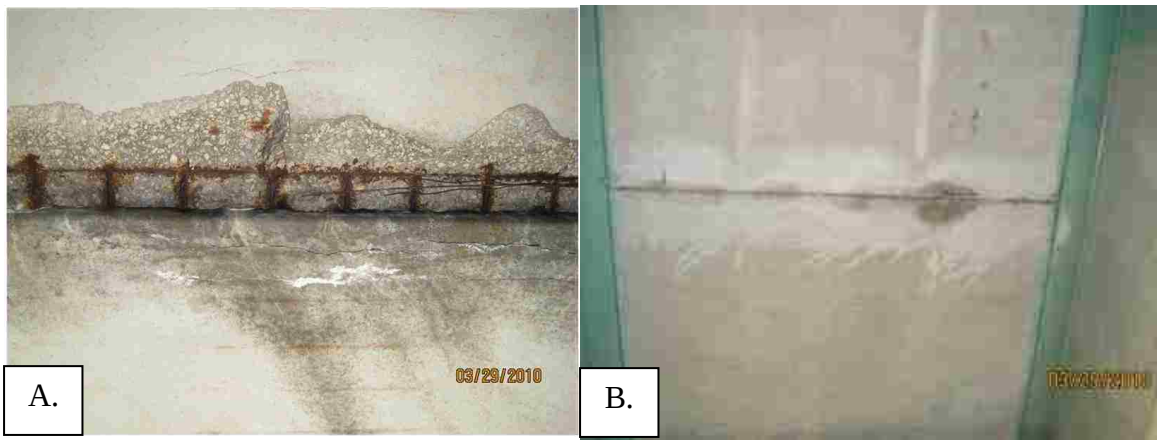

Figure 3.22: Images of bridge deterioration from St. Louis bridge investigation (A. Worst case spalling found in Bridge A4067, B. Panel joint experiencing waterstaining and efflorescence in Bridge A4705)

4. DISCUSSION OF RESULTS

The visual inspections performed on Bridges A4067, A4704, A4705, A4709, and A4375 (Section 3) found significant spalling in Bridges A4067, A4704 and A4709 in varying locations of the bridge decks. Cracking in the CIP topping and concrete barriers was observed in all bridge decks investigated and assumed to be reflective cracking over the panel joints when the "zigzag" orientation of the cracking as well as its approximate 8 ft. spacing was observed. This could be due to differential shrinkage or discontinuity of the cross section at the panel joint locations.

Findings from the visual inspections performed on the five different bridge decks (Sections 3.1.2, 3.2.4.1 and 3.3.3) lead to the development of the following general relationships: extensive deterioration, such as spalling and cracking, of the panel joints is more prominent in certain regions of the bridge decks; crack patterns observed in the CIP topping of each bridge deck closely resembled panel joint locations and are likely the delaminations allowing water to ingress through the CIP topping and access the tendons; and cracking/tendon corrosion is occurring only at the panel joints because no cracking was observed under the discoloration lines (Section 3.2.4.1). These relationships were developed in response to the three different pieces of information that were needed to accurately determine the cause of spalling in the partial-depth PPC bridge decks (Section 3.2.1): designation of areas more prone to deterioration, locations of delaminations in the bridge decks and extent of corrosion of the tendons in the PPC panels.

To this effect, visual inspection data described in Section 3 is correlated with data obtained from other NDTs in this Section by first examining the entire bridge deck with respect to relative deterioration (Section 4.1), then determining how water and chlorides are progressing through the slab (Section 4.2) and finally, examining the extent of deterioration on the prestressing tendons (Section 4.3).

4.1. IRREGULAR DETERIORATION DISTRIBUTION

The visual inspection findings indicated an uneven distribution of deterioration occuring in the panels of the bridge decks. In Bridge A4709 spalling was limited to Panel

Lines D and C (Figure 3.6) and the panels located in the middle of the bridge deck had little to no signs of deterioration. Sections 4.1.1 and 4.1.2 discuss the correlations of the visual inspection data with rebound hammer and GPR data to acquire a greater understanding of the bridge decks' irregular deterioration.

4.1.1. Correlation Between Rebound Hammer and Visual Inspection Data. The rebound hammer data, acquired from a selection of panels with varying degrees of deterioration, compared relative concrete strengths of the panels. The concrete relative strength data obtained correlated well with the visual inspection results, meaning the two lowest average rebound numbers, concrete strengths, were acquired from the panels with the worst cases of spalling located in Panel Line D. (See Table 3.3 for rebound hammer data.) The panels with the highest rebound numbers were also located in Panel Line D, the panel line subjected with the worst spalling conditions; however, these readings were taken on panels with little to no signs of degradation. In Table 3.3, the panels designated by 1's and 2's in their superscripts are panels with cracking and/or spalling at the panel edges. Panels with no superscripts show little sign of deterioration and degradation. It can be seen from the table that panels exhibiting serious deterioration overall had lower concrete strength values. Two exceptions were panels C12-13 and D12-13. These panels had one seriously deteriorated edge while the other edge showed minimal efflorescence and water staining. These panels were located in the area below the transition between 5 in. spaced reinforcement and 15 in. spaced reinforcement in the CIP topping (Section 3.2.2), which could indicate why one-side, deteriorated panels experienced higher average strengths than most deteriorated panels.

4.1.2. Correlation Between GPR and Visual Inspection Data. GPR data obtained on the top surface of the bridge deck in both the longitudinal and transverse directions indicated areas of less deterioration in locations similar to those observed in the visual inspection data. Reasons for the varying deterioration were discovered by correlating the GPR data with the visual inspection data.

Data obtained in the longitudinal GPR scans on the bridge deck could not be used to create a deterioration contour map (Figure 3.17), due to anomalies located in the data obtained from the middle of the bridge deck. Figure 4.1 shows the beginning and ending of this anomaly in Panel Line C. The apparent depth of the reinforcement in the anomaly,

indicated by the dashed line, is less than the apparent depth of the reinforcement hyperbolas, indicated by the solid line. The panel joint, located to the right of the anomaly in Figure 4.1B, shows an area of more degradation than the joints located under the anomaly. Extra reinforcement in the CIP topping slab would improve crack control, thus preventing access to additional water and chlorides that would deteriorate the bridge deck. Areas under this anomaly appear less degraded, which is likely the result of a lesser amount of chlorides.

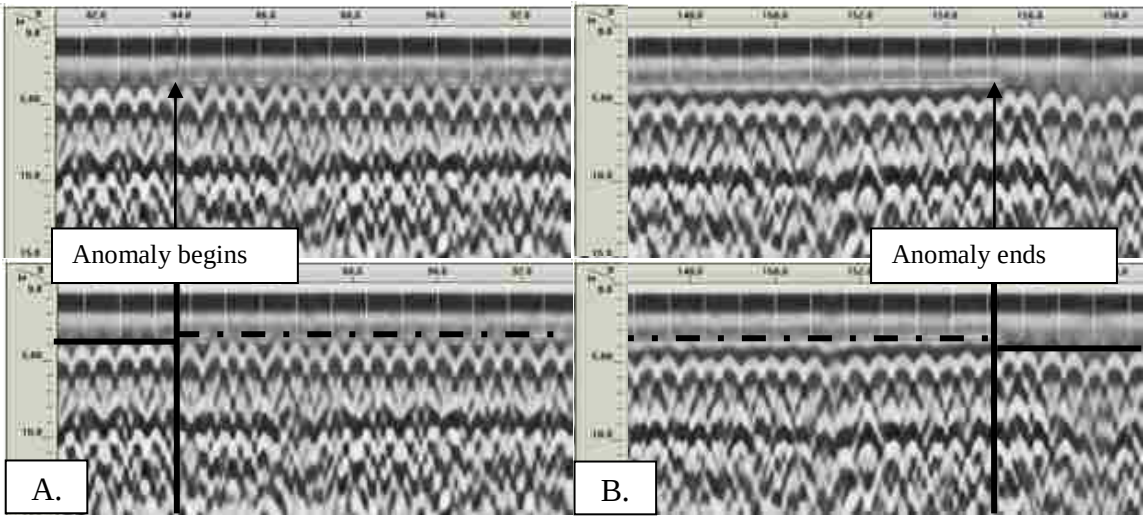

Figure 4.1: Anomaly in GPR data in Panel Line C (A. Beginning of anomaly, B. End of anomaly)

Because the reinforcement within the anomaly region had such a lower apparent depth, data obtained from the reinforcement reflections in the transverse scan were used to compare the apparent depths of reinforcement located in close proximity to the anomaly as well as reinforcement inside the boundaries of the anomaly. Apparent depths of reinforcement data obtained in the transverse direction in Scan Line 45, located just before the anomaly, and Scan Line 47, located in the anomaly, are plotted in Figure 4.2. The figure shows the variation in apparent reinforcement depths in two different scan lines, Lines 45 and 47, in the transverse scan. Notice the decrease in apparent reinforcement depth as the spacing of the reinforcement decreases. Assuming the actual

depth of reinforcement is the same in both cases, the decrease in apparent reinforcement depths indicates less deteriorated concrete. In addition, the area showing relatively lower apparent depth (24-32 ft. along the x-axis) to reinforcement in both scan lines.This area corresponds to concrete located directly over Panel Line B, which was the panel line experiencing the least about of deterioration per the visual inspection.

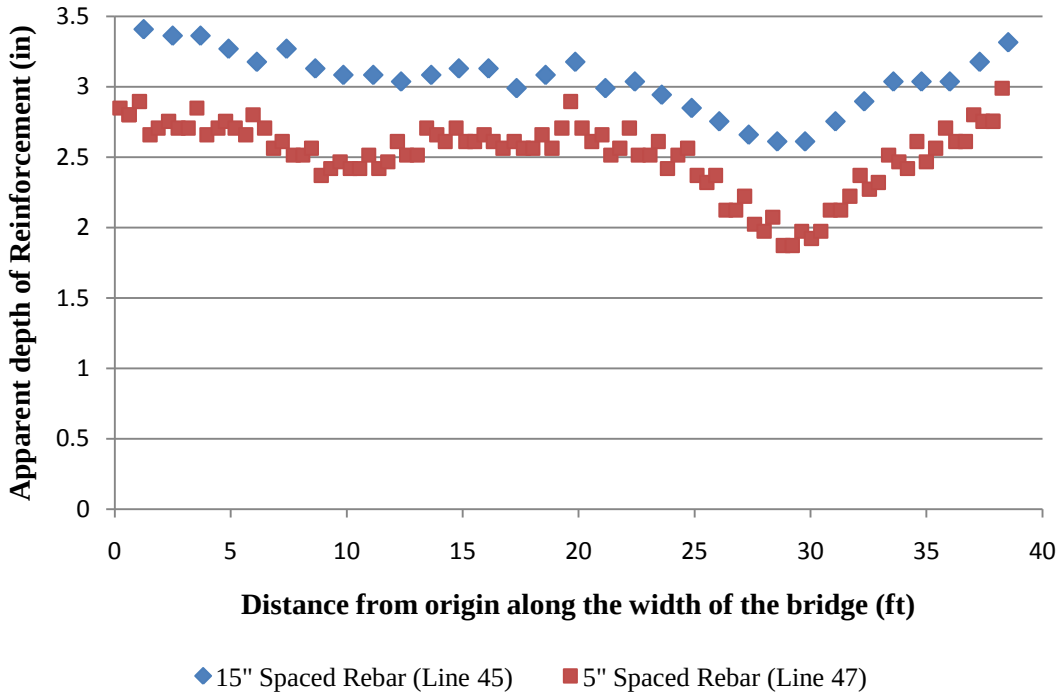

Figure 4.2: Difference in apparent reinforcement depth at GPR scan lines 45 and 47 in the transverse scan

The bridge construction documents confirmed the explanation for the anomaly and the difference in deterioration levels. They indicated the presence of additional longitudinal reinforcement placed in the CIP topping slab of the bridge deck in areas needing higher negative moment capacity (Section 3.2.2). The location of the extra longitudinal reinforcement shown in the construction documents corresponds to an anomaly found in the GPR data.

The location of additional reinforcement described in Section 3.2.2 was mapped along with the spalling, cracking, efflorescence and water staining visual inspection results found in the panels. Figure 4.3 shows a portion of the bottom surface of the bridge deck at the transition between 15 in. on center spaced reinforcement, located on the east side figure, and 5 in. on center spaced reinforcement, located on the west side of the figure, in the CIP topping slab. The CIP reinforcement overlays the panel mapping for visual aid. Notice the spalled and waterstained joints in Panel Line D. The area with the closer spaced reinforcement shows less signs of water stains and no spalling or cracking. According to the bridge drawings Scan Line 45 is located just before the increase in longitudinal reinforcement from 15 in. spacing to 5 in. spacing, and Scan Line 47 is located just after the transition. The locations of spalled and water stained joints clearly show that more deterioration is occurring in areas with the decreased reinforcement. Even though many of the panel joints located under the decreased reinforcement areas are not yet significantly deteriorated, eventual progression to first cracking and ultimately spalling will likely occur given adequate moisture and chloride levels.

In addition to observing varying panel deterioration along the length (east to west) of the bridge deck, visual inspection results for Bridge A4709 also showed varying panel deterioration across the width (north to south) of the bridge deck. More deterioration of the panel joints is occurring in Panel Lines C and D because these are the only panel lines with spalled joints (Figure 3.6 shows the panel line layout, and compiled mapping of the bottom side of the bride deck is included in Appendix C). The southeast traffic lane is comprised of Panel Lines C and D and is subjected to similar traffic loadings as those in the northwest traffic lane. In addition, the bridge is crowned with the same slopes in both lanes and is completely flat (not sloped in the east or west direction) giving water and chlorides the opportunity to penetrate both sides equally.

The GPR data showed more deterioration occurring in the CIP topping slab in Panel Line D (Figure 3.16) as deeper apparent thickness; however, Panel Lines C and A have very similar apparent depths indicating similar deterioration levels. Panel Line A joints are deteriorated to the point of cracking, but no spalling had yet occurred. The uneven distribution of spalled joints on one side of the bridge width versus the other was

not observed in any of the other bridges observed. The cause for the uneven deterioration occurring in Bridge A4709 was not able to be determined in this study.

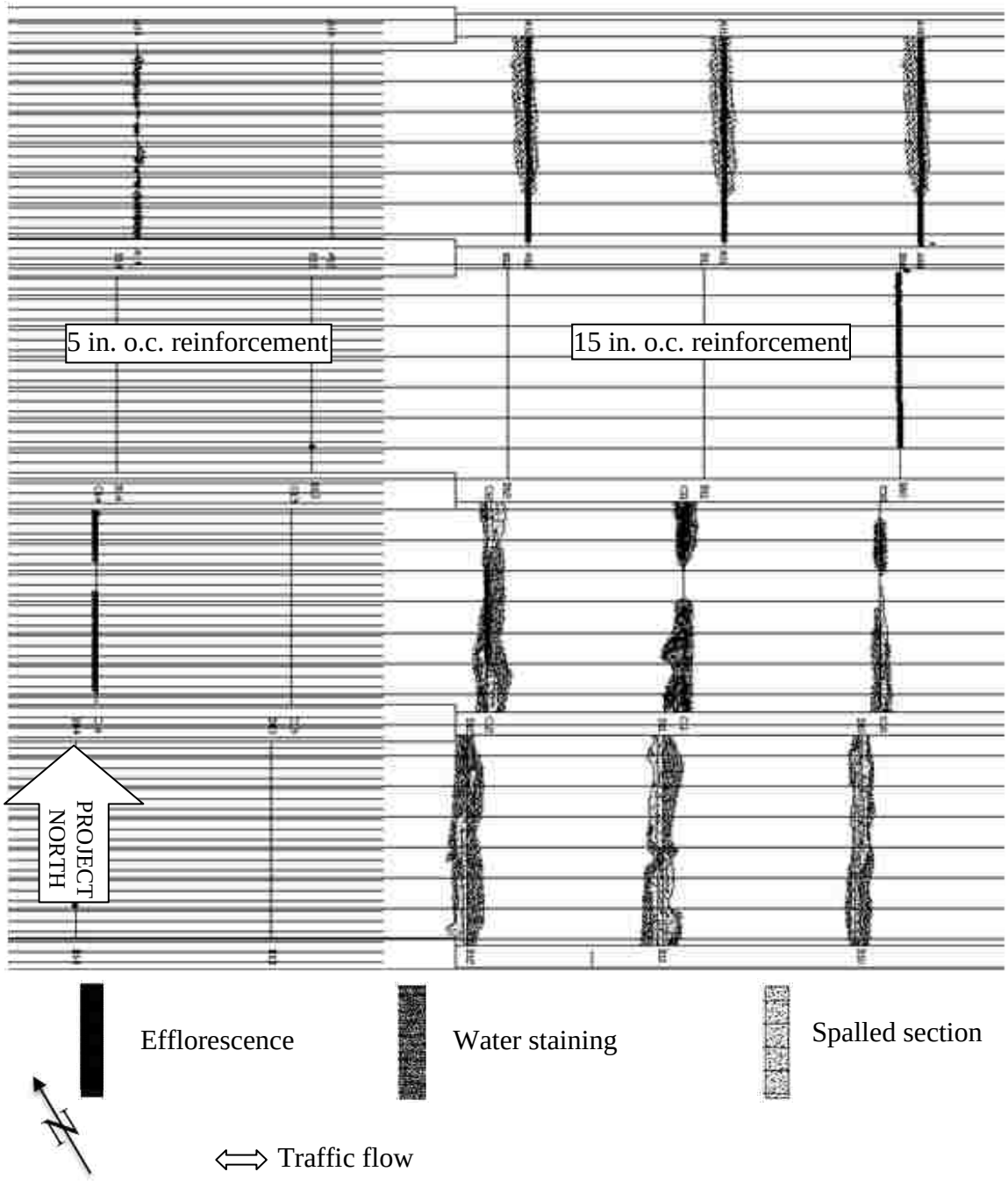

Figure 4.3: Relationship between extra longitudinal reinforcement in CIP topping and PPC panel deterioration (A. Longitudinal reinforcement spaced at 5 in. on center, B. Longitudinal reinforcement spaced at 15 in. on center)

4.2. DELAMINATION LOCATION

Section 4.1 proved certain areas of the bridge deck were more prone to panel joint deterioration due to less crack control in the CIP topping; however, the relative deterioration results provided no confirmation on where the water and chlorides were travelling once inside the CIP topping slab. Delaminations occurring within the bridge deck cross-section cannot be seen during a visual inspection. The visual inspection, however, can provide pertinent information on what type of additional NDT is needed and where to perform the testing on the bridge deck.

Many techniques were used in this study to determine how water flows through the bridge deck cross-section including a transverse and longitudinal GPR scan on the top surface of the bridge deck and a longitudinal panel scan on the bottom surface of the bridge deck. In additon, cores were used to correlate the GPR data for improved accuracy. To this effect, Sections 4.2.1 and 4.2.2 discuss the correlation between the visual inspection, GPR and core data.

4.2.1. Correlation Between GPR and Visual Inspection Data. GPR provides a means of looking into the slab to search for possible areas of voids and delaminations. GPR data obtained in the transverse scan was first used to correlate the visual inspection data.

Once the GPR data were acquired in the transverse direction, two contour maps were created to display possible areas of deterioration and delaminations (Figure 3.17 and Figure 3.18). A comparison of the visual inspection results are compared with the contour maps of the bridge deck in Figure 4.4. This figure shows the GPRs interpretation of deterioration in the bridge deck through the reinforcement reflection amplitude and signal travel time contour maps versus the visual inspection results from the bottom side of the bridge deck. The circled portions of each diagram correspond to the locations with the worst case of spalling and cracking observed in the panels on the bridge deck. These areas should presumably correspond to the worst delaminating area in the CIP topping slab because the CIP topping slab is the concrete the chlorides are progressing through to allow tendon corrosion.

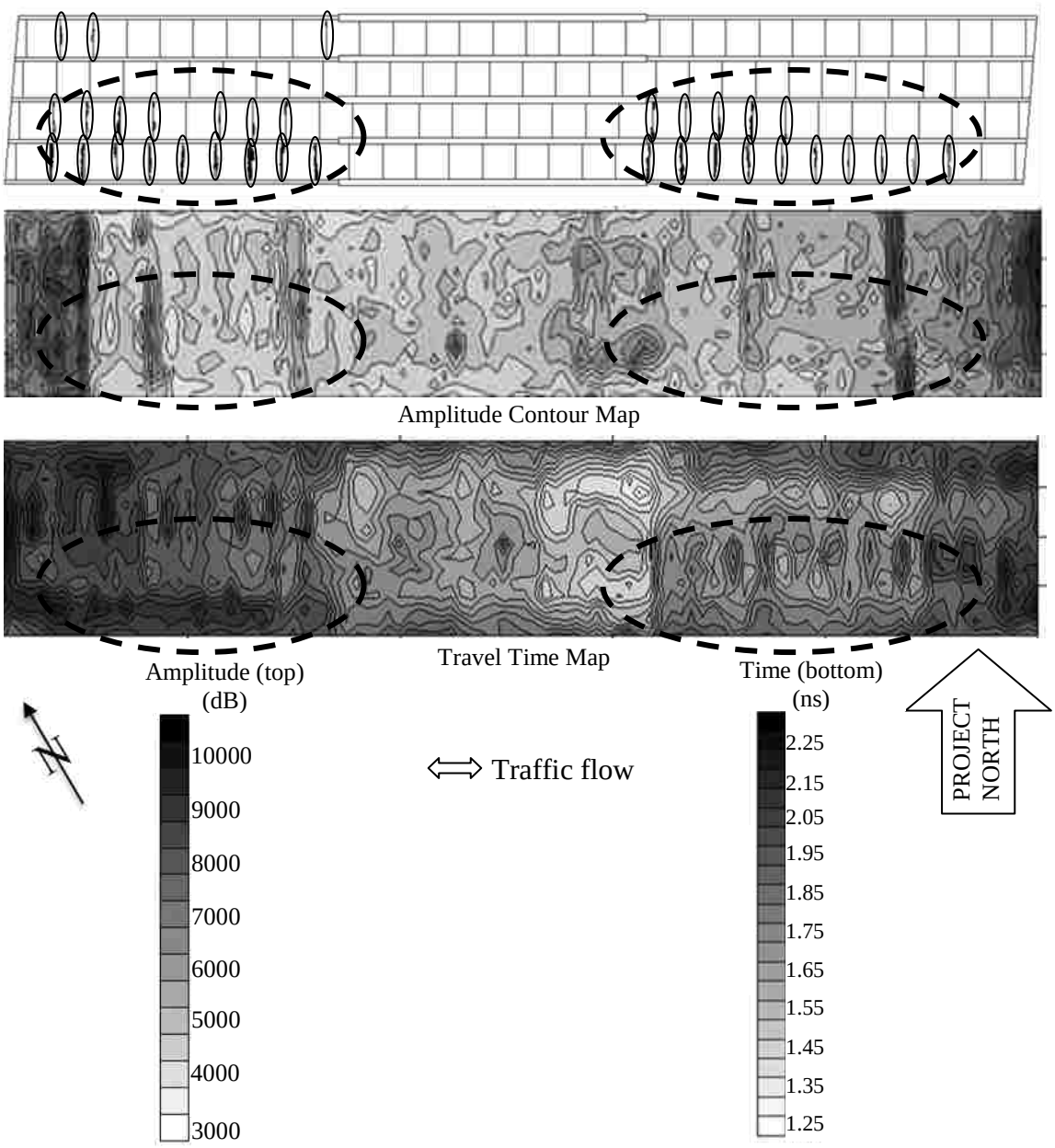

Figure 4.4: Visual inspection results and GPR results comparison

GPR data gathered in the area of the dashed circles located on the east side of the bridge matches the visual inspection data well in both contour maps. The amplitude map shows lower areas of reinforcement reflection amplitudes (lighter sections) and the travel time map shows longer travel times (darker sections) in the circled area especially close

to the east end of the bridge deck. There is, however, a "strip" of darker area in the reinforcement reflection amplitude map located inside of the circle, indicating less deteriorated concrete. This area is directly over the mid-width of a panel and not near a panel joint. This confirms that most of the deteriorated concrete is over the panel joints alone, and that there are no additional delaminations occurring between the panel joints in CIP topping.

GPR data on the west side of the bridge deck show excessively long travel times in the signal travel time map, indicating deterioration, and some areas of lower reinforcement reflection amplitudes in the amplitude map. Again, the amplitude map includes "strips" of relatively high amplitudes. The "sinkhole" areas of longer travel times in the signal travel time map likely correspond to the reflective cracking in the CIP topping over the panel joints observed during the visual inspection. The scan lines in the west portion of the deck appear to have acquired data over the reflective cracking occurring over Panel Lines B and D, and the scan lines acquired in the east portion of the bridge deck appear to have acquired data over the reflective cracking occurring over Panel Line C (Figure 3.6).

In some areas, such as the area located just west of the eastern circle, the maps complement each other. The amplitude map shows higher amplitudes, and the travel time map shows shorter travel times, which are both an indication of less deteriorated concrete. In contrast, the two contour maps produce some contradicting results, particularly at the outer ends of the bridge deck. The reinforcement reflection amplitude map shows higher amplitude signals at the ends of the bridge deck indicating less deterioration. The travel time contour map, however, shows longer travel times at these same locations, which is an indication of deterioration assuming the thickness of the concrete and the placement of the reinforcement is the same throughout the entire bridge deck.

Varying reinforcement placement is one possible explanation for this discrepancy. During construction, reinforcement placement in large bridge decks can often vary due to survey instrument or human placement error. In addition, the core samples acquired prove that the CIP concrete thickness in Bridge A4709 varies (Table 3.4). The varying concrete thicknesses as well as reinforcement misplacements decrease the accuracy of

contour maps developed from reinforcement signal travel times; however, this contour map accurately shows longer travel times occur at approximately 8 ft. intervals in many parts of the bridge deck. This correlates with the approximately 8 ft. spaced reflective cracks in the CIP topping slab observed in the visual inspection (Section 3.2.4.1).

4.2.2. Correlation Between Core and GPR Data. In addition to comparing transverse GPR and visual inspection data (Section 4.2.1), each core location was superimposed on GPR data obtained in the longitudinal scan to compare the reinforcement levels and chloride ion contents observed and to obtain more information on delamination locations. Figure 4.5 shows each core obtained in Panel Line A (Figure 3.6) and indicates its chloride ion content as shown in Table 3.4.

Figure 4.6 shows the comparison of the core data in Panel Line D. Note that the cores with the higher chloride ion values, cores C-2, C-3, and C-10, were taken in areas that appear to be anomalous sections compared to the other cored areas. A solid line marks the apparent location of the bottom surface of the bridge deck with respect to each core location. Longer travel times or deeper apparent thicknesses are normally indicative of increased deterioration. By comparing the apparent thickness of each core location, a relative comparison of deterioration was obtained. For instance, when comparing the apparent thicknesses at locations of cores C-3 and C-2, C-3 area has an apparent thickness of 10 in. and C-2 has an apparent thickness of 9.7 in. As shown in Table 3.4, chloride ion levels in C-3 were higher than levels found in C-2; thus, the GPR data is consistent with chloride ion data found.

In addition, C-2 and C-3 were both smooth bottom cores. Cores with smooth bottom surfaces were used as a control to compare for areas of delaminations. These cores were easy to extract from the concrete deck indicating that the CIP and PPC panels had little to no bond between the two surfaces. Furthermore, the depth of core corresponds to the thickness of the CIP topping slab in these locations. Core C-2 had a length of 5.5 in., and core C-3 had a length of 6.125 in. The apparent thickness at the location of core C-3 should appear thicker because the bridge deck is thicker in that area. For these cores, the information obtained from the GPR data was consistent; however, because the apparent thickness of the slab changed with an increase in chloride ion

content of the concrete, these data do not prove that GPR can accurately detect increasing chloride ion contents.

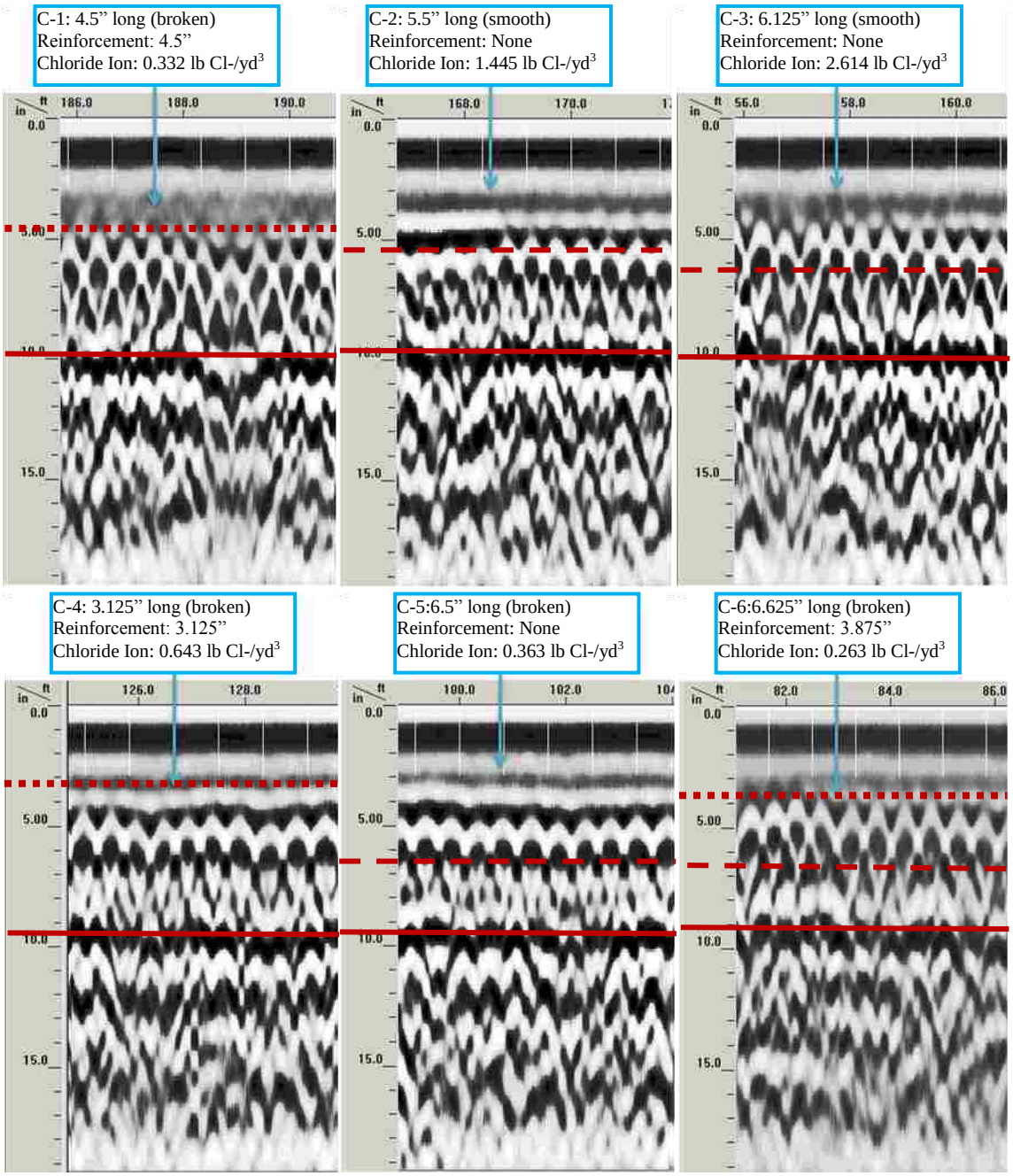

Figure 4.5: Panel Line A core comparison

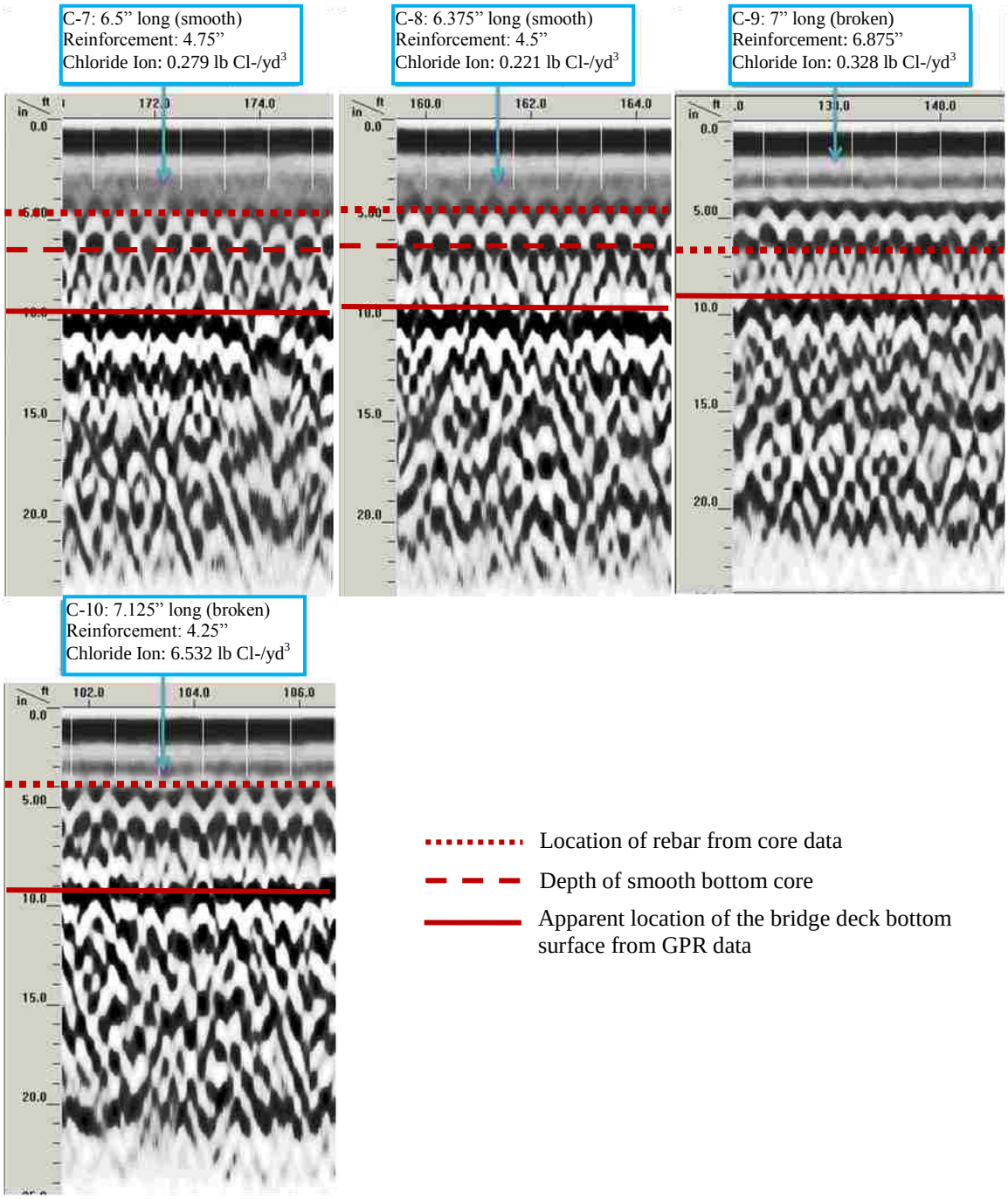

Figure 4.6: Panel Line D core comparison

The shortest smooth bottom core obtained was 5.5 in. long, which is the specified thickness according to the bridge drawings. The longest smooth bottom core obtained

was 6.5 in. long, but the longest broken bottom core obtained was 7.125 in. long. Core C-9, shown in Figure 4.7, was 7 in. long with a broken bottom. (Pictures of all the extracted cores are located in Appendix C.) This gives evidence that the bridge deck varies in total thickness from 8.5 in. to at least 10.125 in. In addition, core lengths appeared to increase toward the middle of the bridge deck. Variations of thicknesses in the CIP topping may have been used to achieve a level bridge deck or to create a crown in the bridge deck cross-section.

Figure 4.7: Core C-9

To obtain an even better picture of the cross-section, GPR data obtained in the longitudinal direction from the top and bottom surface of the bridge decks were correlated with findings from core C-7. The location of core C-7 with respect to the GPR data is shown in Figure 4.8 from the upper and lower deck views. This core had a smooth bottom surface and included reinforcement. The depth of the reinforcement and core were mapped on the GPR data obtained from the top of the bridge deck. This core, taken in the middle of a spalled panel, contained a measured chloride ion content suggesting corrosion was not probable in the CIP portion of the bridge deck; however, some delamination was most likely occurring in the area because of the smooth bottom surface of the core. Figure 4.8A shows GPR data acquired from the top surface, and Figure 4.8B shows GPR data acquired from the bottom surface of the bridge deck. Apparent depth of reinforcement and slab thickness shown on the GPR data obtained on the top surface of the bridge deck correlates well with the core data, which indicates little to no

delaminations; however, little information pertaining to the cross-section of the bridge deck could be obtained from the bottom surface GPR data due to the close spacing of the tendons.

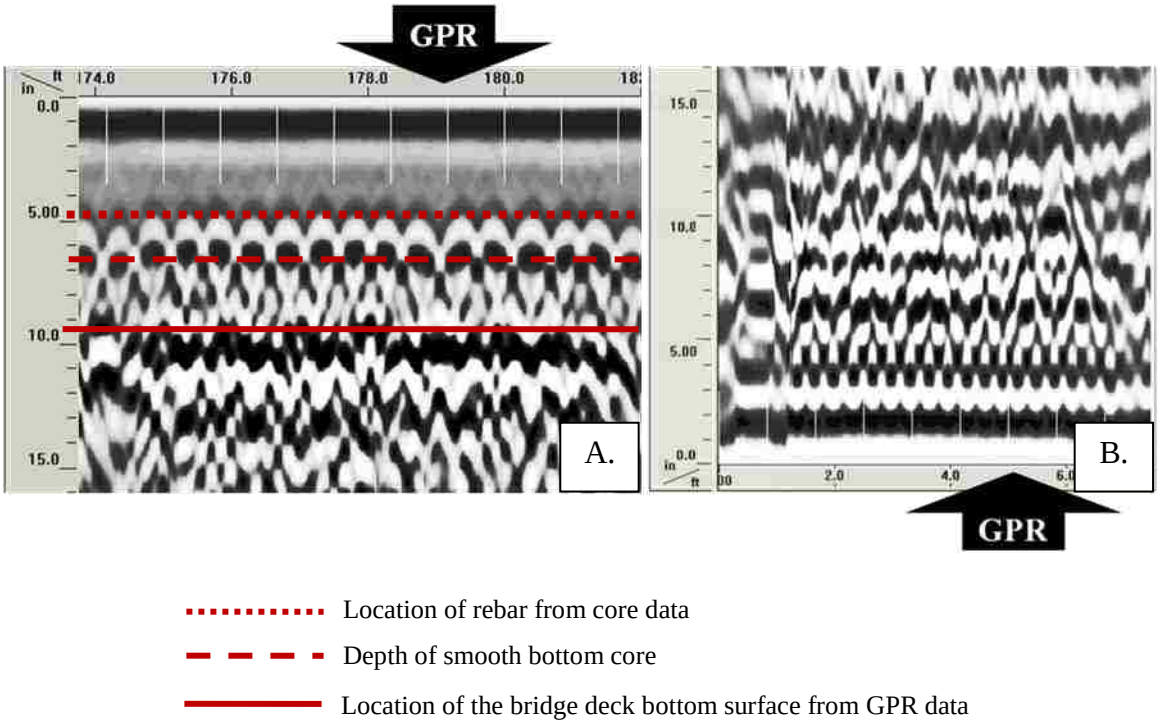

Figure 4.8: GPR data for the location of core C-7 (A. Data acquired from the top surface of the bridge deck, B. Data acquired from the bottom surface of the bridge deck)

For additional comparison, each core was plotted in its exact location on the amplitude contour map. Figure 4.9 shows the locations of the cores with respect the amplitude contour map created from the transverse scan GPR data. The amplitude values for each core location were then compared with the amplitude values with the highest chloride ion content found in each core (Figure 4.10). GPR data yielded results that did not always correlate with the chloride ion values measured in each core. For example, core C-10 had the highest chloride ion value, but was not in an area of the lowest amplitude. Core C-10, taken directly over a reflective crack in the CIP topping, is a spot measurement, and the crack would allow more chlorides to ingress into the concrete at

that spot. GPR data, however, indicates the concrete integrity in a given area and the concrete area around core C-10 may be very sound.

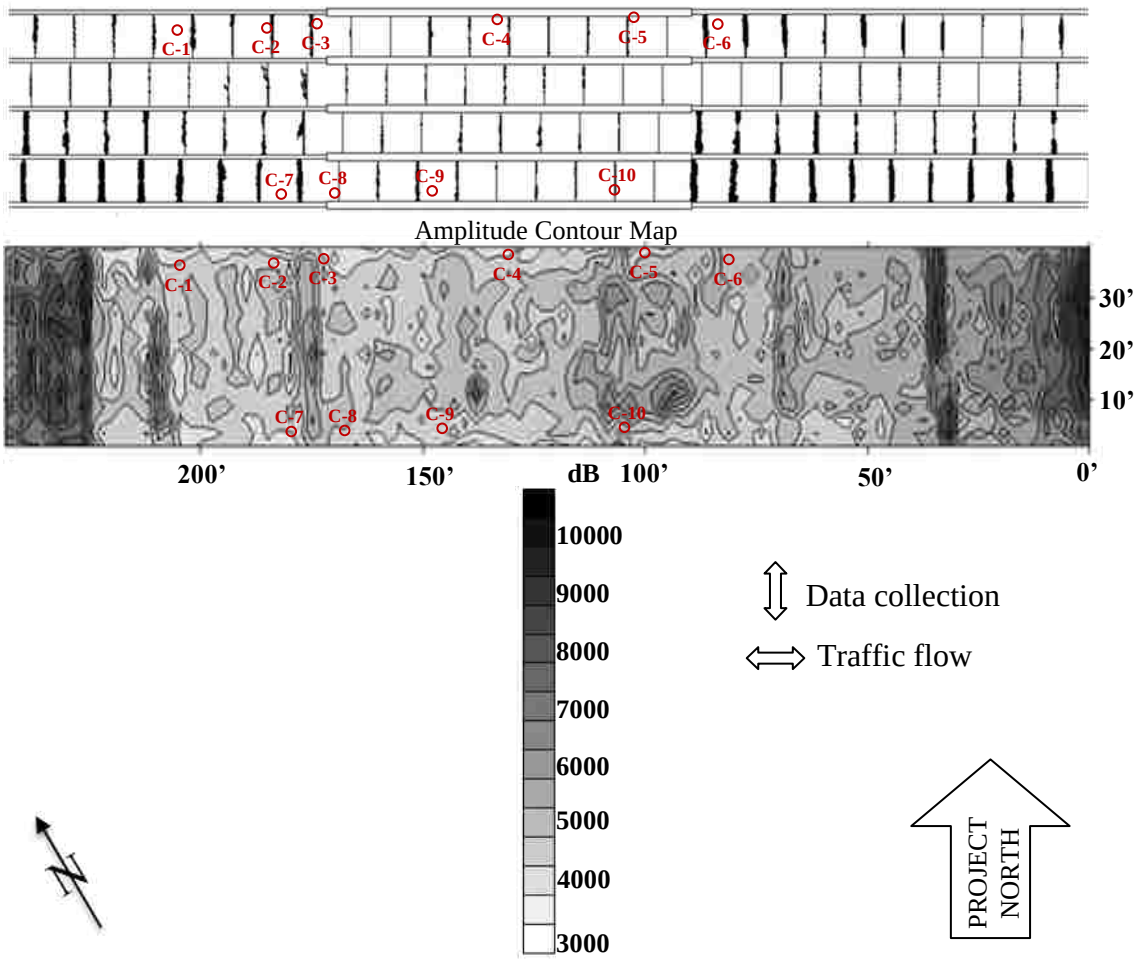

Figure 4.9: Locations of cores with respect to panel locations and GPR deterioration map

A closer look at C-10 on the GPR data obtained in the longitudinal scan provided better correlation to the core data. Core C-10 exhibited the worst damage in the concrete because it was taken from the concrete directly over a panel joint. As expected, the chloride ion content was higher in this core relative to the others. The panel joint at the location of core C-10 had no spalling and minimal water stains, but the GPR data indicated some degradation. Figure 4.11 shows the screen shot at the location of core C-10. As indicated in the figure, there is slight degradation, change in anomaly depths, at this location. This proves that GPR can accurately locate areas of degradation before

spalling occurs. The correlation between core and GPR data proved GPR accurately locates areas of delaminations.

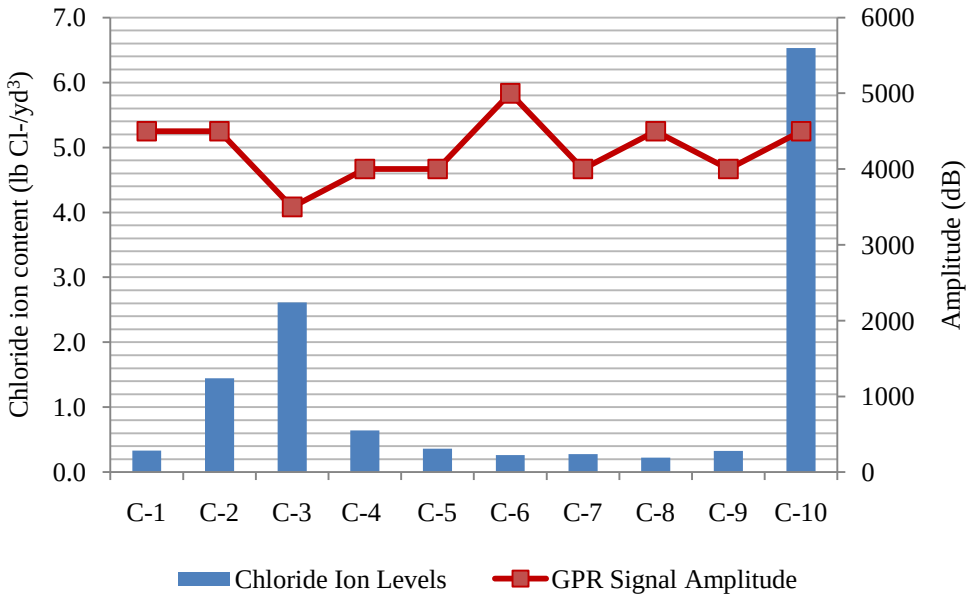

Figure 4.10: Chloride ion levels of each core versus the amplitude measurement of each core

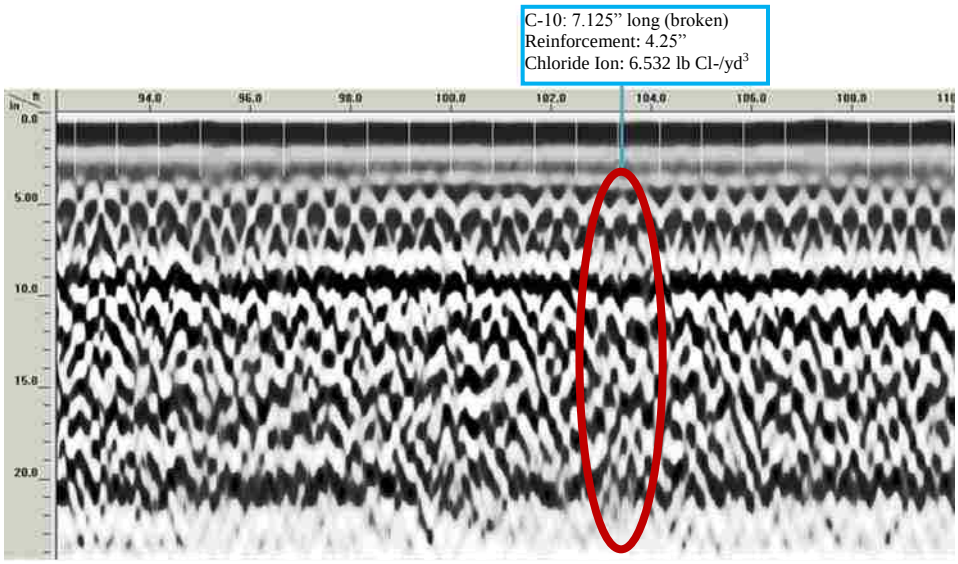

Figure 4.11: Screen shot of core C-10 in GPR data obtained in the longitudinal scan

4.3. CORROSION OF TENDONS

Visual inspection results indicated discoloration lines in the middle of various panels in all of the bridge decks observed. These lines varied in color from gray to a rustic brown. Rust stains can indicate corrosion is occurring in the prestressing strands and that the rust is permeating through the concrete to be visible on the bottom surface of the panel; however, rust would also create an increase in stresses and cause cracking of the concrete. As mentioned in Section 3.2.4.1, the only cracking occurring in the panels was observed at the panel joints. Section 4.2 found locations of delaminations were occurring in the CIP topping slab mostly in the reflective cracking locations, but it provided little information pertaining to the discoloration lines seen in the panels. Further investigation on the relative tendon deterioration was needed in order to determine if chlorides were accessing the middle tendons as well as the outer tendons on each panel. To answer this question, Section 4.3.1 discusses the correlation between the half-cell and resistivity data, and Section 4.3.2 discusses key results found by in the GPR data obtained from the bottom surface of the bridge deck.

4.3.1. Correlation Between Half-Cell Potential Data and Resistivity Data. As mentioned in Section 3.2.3.3, the half-cell and resistivity testing were conducted to determine the corrosion rates of the prestressing tendons as well as correlate GPR data. The half-cell potential tool measures voltages generated by corroding reinforcement (Elsner 2001). Due to lack of time and limited accessibility, readings were only taken over tendons that were already exposed. As expected, each tendon indicated corrosion was a high probability (Appendix C). In contrast, the resistivity tool measures the resistivity of the concrete of the bridge deck (Canin 2007). These results showed that only one panel had a voltage reading low enough to indicate that corrosion was possible (Appendix C). This panel exhibited spalling in both panel joints. Resistivity readings are mostly functions of porosity, permeability and moisture content and salinity.

The results show that corrosion was indeed occurring in the tendons located nearest to the panel joints and either partially or fully exposed in many places. The resistivity results, however, indicate that there were no suitable combinations of porosity,

permeability, moisture content and salinity in any of the panels except one to indicated corrosion was a possibility in the middle of the panels.

4.3.2. Correlation Between GPR and Visual Inspection Data. GPR data was obtained on the bottom surface of the bridge deck in an attempt to obtain a clear picture of the tendons on each panel tested. Unfortunately, because of the apparatus used and difficulty in maneuvering in the lifts, the antenna was not always directly coupled to the surface of the panel resulting in changes of the angle of the antenna with respect to the panel. As a result, much of the data obtained was unusable in comparing relative panel-to-panel deterioration, but the general relationship of the data proved useful.

Using the reinforcement reflection-picking tool described in Section 3.2.4.2, the amplitude of each tendon reflection was acquired for all panels selected for the GPR data acquisition located in Panel Line D, which exhibited the worst case of spalling (Section 3.2.4.1). Figure 4.12 shows the average amplitudes recorded for each tendon reflection acquired on selected panels (compiled data is included in Appendix D and the attached CD). As shown in the graph, many of the panels had varying amplitudes, but most had the general relationship of lower amplitudes at the panel ends, near the joints, and higher amplitudes in the middle of the panels. Data was often not available at the edges of the panels due to how the wheel was configured (Section 3.2.3.2)

All of the panels shown in Figure 4.12 have discoloration lines on the bottom surface, so an additional plot of tendon reflection amplitude data from panels in Panel Line C is shown in Figure 4.13. Dotted lines were used to connect the data points acquired on panels without the discoloration lines (Panels C5-6 and C13-12), and solid lines were used to connect the data points acquired on panels with the discoloration lines (Panels C7-8 and C9-10).

The figure shows similar relationships between plots of data acquired from panels with the discoloration lines and the panels without the lines. This indicates that no additional corrosion is occurring in panels with the discoloration lines; therefore, there is no evidence supporting the assumption that the discolorations lines are indicative of corrosion occurring in the tendons.

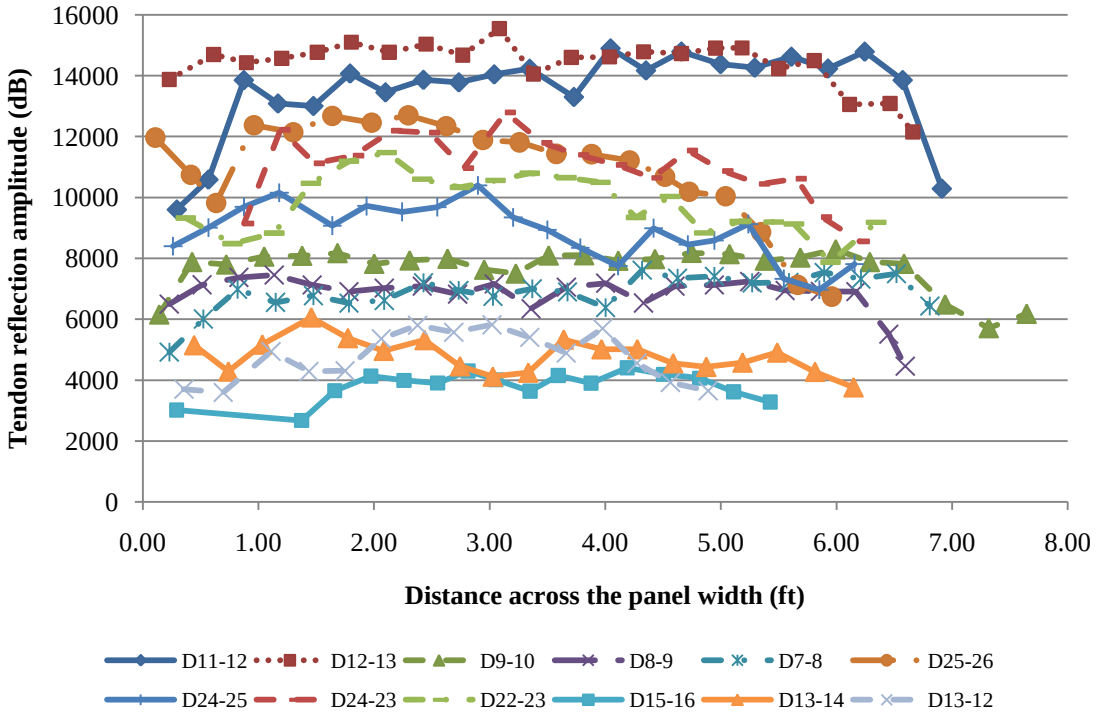

Figure 4.12: Average tendon reflection amplitudes acquired on panels located in Panel Line D (See Appendix C for compiled results and labeling rubric)

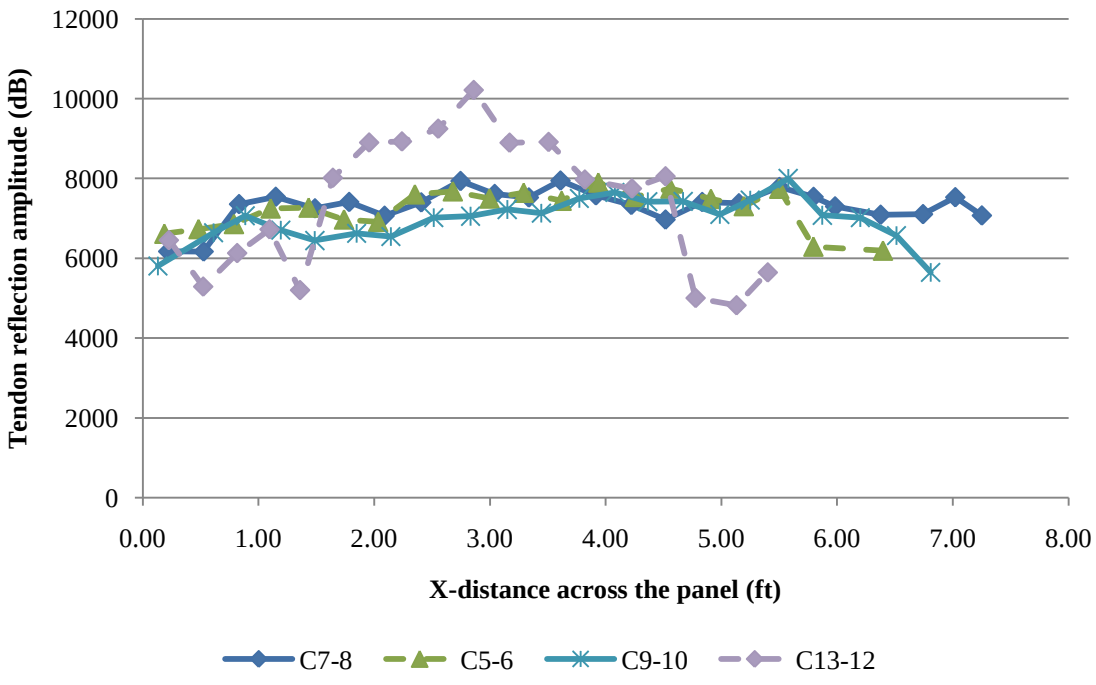

Figure 4.13: Average tendon reflection amplitudes acquired on panels located in Panel Line C

5. CONCLUSIONS, ONGOING STUDIES AND RECOMMENDATIONS FOR FUTURE STUDIES

This study involved the investigation of the causes of spalling observed in several partial-depth precast prestressed bridge decks in the state of Missouri. The St. Louis investigation described in Section 3.1 gave a better understanding of the problem and its possible causes. Bridge A4709 was selected for the in-depth investigation because it was identified by MoDOT bridge engineers as having the worst case spalling issue. This bridge investigation, described in Secion3.2, revealed pertinent information in the determination of the cause(s) of the spalling problem. Ground penetrating radar, which has been shown to be successful in bridge deck evaluation (Cardimona 2000), was used to determine the relative condition of the prestressing tendons as well as the relative condition of the concrete throughout the deck in order to identify areas of cracking and corrosion. Particular techniques were used in an attempt to identify areas of delamination at the interface between the precast panels and cast-in-place topping slab, namely the acquisition of data from both the top and bottom deck surfaces as well as specialized data interpretation techniques. Core control and visual inspection were utilized to interpret and validate the GPR data. The final bridges investigated, Bridges A4067 and A4705 (Section 3.3), confirmed findings from Bridge A4709 and gave greater insight to the cause of spalling.

5.1. CONCLUSIONS

1. Based on the results from the first bridge inspections in St. Louis, spalling in the PPC panels is the result of the penetration of water and chlorides through the reflective cracking in the CIP topping, to the interface between the CIP topping and the PPC panels, then through the PPC panels to the prestressing tendons located near the panel joints.
2. Visual inspection results from the bottom side of the A4709 bridge deck indicated an uneven distribution of deterioration in the bridge deck panels. Rebound hammer test results indicated that panels located under the area with 5 in. spaced

negative moment reinforcement were less deteriorated; therefore, increased crack control in the CIP topping delays the onset of spalling at the panel joints (Section 4.1.1). GPR provided confirmation that concrete integrity increases with crack control reinforcement (Section 4.1.2).

3. Reflective cracking over the panel joints, observed in each bridge investigation, allows water and chlorides entrance into and, in many cases, through the CIP topping. GPR showed most deterioration in Bridge A4709 is occurring near the area of reflective cracking in the CIP topping and not in the area of concrete over the middle of the panels.
4. Smooth bottom cores, acquired at various locations along the panels in Bridge A4709, indicate that some delamination is occurring at the CIP topping and panel interface.
5. Acquiring GPR data from the bottom surface of the bridge deck was a labor intensive and time-consuming technique. Unfortunately, the data acquired from the bottom surface of the bridge deck of Bridge A4709 was not helpful in terms of determining areas of delaminations because the close spacing of the prestressing tendons of 4 in. made it difficult for the electromagnetic energy to navigate to the rest of the bridge deck. These data were, however, helpful in evaluating relative tendon deterioration.
6. Discoloration lines observed across the middle of the panels during the visual inspection of the underside of the bridge decks initially appeared to be rust stains caused by the rusting of the middle tendons and the permeation of the rust through the prestressed concrete panel. High resistivity readings obtained from the panel concrete indicates a very low possibility of corrosion. In addition, GPR data obtained from the bottom side of the bridge deck showed that prestressing tendons located in the middle of the panels were less degraded than the outer most tendons (4.3.2). As a result, there is no evidence to support that the discoloration lines are rust stains caused by tendon corrosion.

5.2. ONGOING STUDIES

Additional studies for the MTI/MoDOT Collaborative Structures Research Program (2008-2010) Project 1B: Spalling Solution of Precast-Prestressed Bridge Decks were underway at the time this thesis was completed. These studies will be used to complete the scope of work and objectives listed in Section 1.3.1. The following is a list of the ongoing studies.

1. Analysis of existing spalling conditions: This analysis is intended to identify and simulate the causes of spalling observed in the bridge inventory. 2-D and 3-D finite element analysis is being carried out with respect to key spalling parameters.
2. Experimental testing of structural performance and environmental effects on full-scale bridge deck panels: This study involves the design, fabrication and testing of proposed types of precast prestressed panels. Eight-four corrosion test specimens having various parameters suspected of affecting the spalling problem are being tested. While the corrosion tests aim to investigate the environmental effects of these parameters on deck panels, the structural performance of proposed panel types is investigated by testing 12 full-size panels subjected to static and fatigue loadings.
3. Literature review on potential repair solutions: An extensive literature review on repair solutions is currently ongoing. Information obtained from the literature review will be utilized in developing recommendations to MoDOT involving various repair tactics of bridge decks experiencing the spalling problem.

5.3. RECOMMENDATIONS FOR FUTURE STUDIES

The use of partial-depth PPC panels saves construction time of bridge decks by replacing traditional formwork; however, many agencies are unwilling to add them to their specifications due to the reflective cracking often seen in these systems and the difficulty of investigation because the bottom of the CIP slab is not visible (Section 2.1). Several additional techniques and methods to obtain an even greater understanding of the

deterioration in the bridge decks may be possible through future studies involving the following techniques.

1. An extensive survey specific to the bridge girder type (prestressed concrete or steel) used on these types of bridge decks would help determine if the cause of reflective cracking in the CIP topping is related to the amount of deflection allowed for in the bridge deck.
2. 3-D GPR can image interface layers (Gucunski 2008) and, therefore, could indicate areas of delaminations at the CIP and panel interface. 3-D GPR can also provide imaging of any layer in the bridge deck so that the approximate depth of deterioration can be determined. The use of 3-D GPR on varying deteriorated bridge decks will provide significantly more information on how the water is traveling through the bridge deck.
3. In addition to the resistivity results, half-cell potential measurements could be obtained on panels with varying degree of deterioration to determine the corrosion potentials of the middle tendons with respect to the end tendons. Combined information from these tests would provide the information needed to determine the corrosion rates of all tendons and subsequently their time to spalling.

APPENDIX A
SURVEY QUESTIONNAIRE AND RESULTS

A. SURVEY QUESTIONNAIRE AND RESULTS

1. INTRODUCTION

This appendix provides additional information and results on the survey sent out to 52 different state transportation agencies. Twenty nine out of the 52 agencies responded. Thirteen of those transportation agencies reported no or minimal use of precast-prestressed bridge deck panels (full or partial-depth). These 13 states and their comments are included in Figure A.3. Results from the 16 states that reported using precast-prestressed panels are shown in Figures A.4-8.

2. CONTENTS

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Figure A.1: Survey cover letter

Date

Address

Dear Sir or Madam:

The Missouri University of Science and Technology, under the Missouri Department of Transportation (MoDOT), is conducting a project investigation entitled "**Spalling Solution of Precast-Prestressed Bridge Deck Panels.**" The objectives of this research project are to investigate the problems and develop a cost-effective mitigation solution to the current concrete deterioration problems found in the existing partial-depth precast-prestressed concrete panels, as well as review improved design options for new construction for the panels that are currently used by the Missouri Department of Transportation.

MoDOT has been using the partial-depth precast paneling system since the early 1970's. Since then several bridge decks have been inspected and found to have rusted embedded steel reinforcement and concrete spalling issues in deck panels. MoDOT has contracted a research project with Missouri University of Science and Technology to investigate the cause and development of solutions including alternate design options for these panels.

The enclosed questionnaire is intended to generate ideas about the main cause(s) of the panel deterioration and gather ideas about ways to mitigate it. In addition, this questionnaire is aimed at compiling a list of important issues and parameters that need to be considered for possibly developing new design specifications for MoDOT.

We realize that you may receive many inquiries like this and that they take up a lot of your time. We, therefore, sincerely appreciate your efforts in sharing your department's experience with others who can benefit from it. At the completion of this project and with approval of MoDOT, a copy of research project report will be shared with you.

Sincerely,

Abdeldjelil Belarbi, Ph.D., P.E.
Principal Investigator

Lesley H. Sneed, Ph.D., P.E.
Co-Principal Investigator

Bridge Research Program

Sponsored by

The Missouri Department of Transportation

SPALLING SOLUTION OF PRECAST-PRESTRESSED CONCRETE BRIDGE DECK PANELS

Conducted by

Missouri University of Science and Technology (Missouri S&T)

Please return this survey to:

Abdeldjelil Belarbi, PhD, PE

Distinguished Professor

Missouri University of Science and Technology

323 Butler-Carlton Hall

1401 North Pine Street

Rolla, MO 65409-1050

Email: belarbi@mst.edu

Fax: (573) 202-2117

Figure A.2: Survey questionnaire

PURPOSE OF THE QUESTIONNAIRE

This research is sponsored by Missouri Department of Transportation (MoDOT) and is being conducted by Missouri University of Science and Technology (Missouri S&T). The purpose of this survey is to collect objective data with regard to spalling problems observed in the soffit of the precast-prestressed concrete bridge deck panels and to request information about field data and/or research studies related to this issue. Your input will assist in the development of a detailed report and research summary that will compile the research findings and provide directions for future application and design approach.

GENERAL INFORMATION

Organization:

Respondent's name:

Position/Title:

Address:

Tel: Fax: E-mail:

PART I: DOCUMENTS REQUESTED

1. If possible, please provide us with a copy of design guidelines and specifications for construction of precast-prestressed concrete bridge deck panels in use by your organization.
2. Please complete the survey on the following pages. If it is more convenient, please call us at (573) 341-4478 to discuss this questionnaire.

PART II: BRIDGE DECK SYSTEMS

1. Has your DOT ever used a precast-prestressed paneling system for bridge decks? ☐ Yes ☐ No

   (If no, please go to question 2. If yes, please proceed to question 3.)

2. If your agency has never used the precast-prestressed concrete deck panels, why? Have you ever considered the use of this system? (Please skip to question 20.)

3. Which precast-prestressed concrete deck panel is primarily used in your state?

	Percentage of Panels
☐ Full-Depth Precast Panel	_____ %
☐ Partial-Depth Precast Panel	_____ %

4. What are the dimensions of the precast concrete bridge deck panels used?

Figure A.2: Survey questionnaire (Cont.)

5. When did your DOT first start to use precast concrete panels as bridge deck? How old are the bridges that have these components?

_____

6. What type of reinforcement has been used in the concrete deck panels?
☐ Mild reinforcement ☐ Epoxy-coated reinforcing steel ☐ Prestressing reinforcement
☐ Fiber reinforced polymer (FRP) reinforcing bars ☐ Other: _____

7. What is the specified 28-day compressive strength of concrete for the precast bridge deck panels?
☐ ≤ 4000 psi ☐ 6000 psi ☐ 8000 psi ☐ 10,000 psi Other: _____

8. Has your DOT updated design guidelines for these deck systems? If so, please describe the
main changes and the reasons for the changes. _____

_____

_____

_____

PART IIA: PARTIAL-DEPTH PANELS

9. What is the specified compressive strength of concrete for the cast-in-place (CIP) concrete topping slab?
☐ ≤ 3500 psi ☐ 4000 psi ☐ 5000 psi ☐ Other: _____

10. What are the types and lengths of the curing process for the cast-in-place (CIP) concrete?

Procedures:	Duration:
☐ Moist curing method	_____ Days
☐ Liquid membrane curing compound method	_____ Days
☐ Waterproof cover method	_____ Days
☐ Other: _____	Days

11. How are panel joints constructed?
☐ Compressible filler ☐ None ☐ Other: _____

_____

PART IIB: FULL-DEPTH PANELS

12. **How are panel joints constructed?**
☐ Compressible filler ☐ None ☐ Other: _____

_____

PART III: PROBLEMS OBSERVED IN PRECAST CONCRETE DECK PANELS

13. Please indicate which of the following problems (if any) have been observed with these systems.

- ☐ Transverse cracks over the topping concrete at the location of joints
- ☐ Longitudinal cracks in CIP concrete topping along the girder line
- ☐ Cracks in the bottom side of panels
- ☐ Seepage at the joints
- ☐ Efflorescence in deck panels
- ☐ Rust stains of deck panels along the direction of prestressed tendons
- ☐ Concrete spalling at the joints
- ☐ Corrosion of reinforcement at the joints
- ☐ None
- ☐ Other: _____

14. What, if any, attempts have been made to mitigate these problems?

- ☐ Linseed oil
- ☐ Epoxy injection
- ☐ Total deck surface treatment
- ☐ Shotcrete
- ☐ Deck crack pouring
- ☐ Chip seal
- ☐ Deck replacement
- ☐ None
- ☐ Other: _____

15. How frequently are deicing procedures typically used, and what is the typical deicing solution material makeup?

Deicing Solution:	Frequency:
☐ Conventional road salt	_____ Per/year
☐ Chloride salts	_____ Per/year
☐ Organic products	_____ Per/year
☐ Nitrogen products	_____ Per/year
☐ Abrasives	_____ Per/year
☐ Other: _____	_____ Per/year
☐ None	Never

16. How frequently are the deck joints (either panel to panel in the case of full-depth precast panels or contraction joints in concrete CIP topping) maintained, and what are the maintenance tactics?

Tactic:	Frequency:
☐ Hot pour sealing	_____ Per/year
☐ Silicone sealing	_____ Per/year
☐ Polytite sealing	_____ Per/year
☐ Other: _____	_____ Per/year
☐ None	Never Per/year

17. Which type of girder is used to support the precast concrete deck panel?

	Percentage of girders:
☐ Steel girders	_____ %
☐ Prestressed concrete girders	_____ %

PART IV: MITIGATIONS & NEWLY-DEVELOPED TECHNOLOGIES

18. If your DOT has experienced any of the above mentioned problems, do you have specific mitigation or repair methods to resolve them? If available, please list below.
☐ Yes ☐ No
Please explain: _____
_____

19. Does your DOT have specific guidelines for the repair of deteriorated precast concrete deck panels? ☐ Yes ☐ No

20. Would your agency be willing to share any report related to the repair/mitigation of spalling and corrosion-related issues in your concrete bridge system?
☐ Yes ☐ No

The comments from the state transportation agencies reporting no or minimal use of PPC panels (full or partial-depth) are as follows:

- North Dakota: "We tried in 1978 and contractor had difficulty installing and ended up with bad ride. Program was discontinued.- was an one time research project."
- Idaho: "Generally our contractor's are not acquainted with deck panels. We have heard that there can be issues with workmanship and (partial-depth) grout strip (camber strip) with contractors who are not familiar with this approach."
- Louisiana: "In Louisiana, even though we have a detail for P/C P/S Concrete Bridge Deck Panels under Optional Span Detail, this type of deck is seldom used. A very high percentage of our deck are SIP or wood form work in place. If the Empirical Design method is used, P/S P/C Concrete Bridge Deck Panels are not used."
- Montana: "Not cost effective without need for rapid construction."
- Vermont: "We do have a section in our prestress specifications that covers the production of them. It could possibly be the designers in our structurers section are not aware of the systems or familiar enough with them. They may also be concerned of reflective cracking at the joints."
- Wyoming: "We have considered the system only. We have not chose to utilize them at this time."
- South Dakota: "There has not been much interest from our local contractors to utilize them and not many critical sites where formwork construction time or removal are a big issue. We have also had concern over reflective cracking at panel joints/edges through topping slab"
- Oregon: "Your questionnaire seems to be geared towards those agencies that have a history of precast deck panels. Oregon does not have any significant history with precast deck panels. Therefore, we do not have any specifications for deck panels or any standardized repair procedures. For this reason, I would like to just mention a few things about our direction rather than send you a mostly blank questionnaire.We are in the early stages of our own research. We are looking at precast concrete deck panels (possibly prestressed) as a way to improve abrasion resistance. At this point we are still working on optimizing a concrete mix to meet the objective of improved abrasion resistance. Should we be able to show significant improvement in abrasion resistance, we then intend to place precast panels on a trial bridge. Oregon's interest is focused on full-depth panels. We are not considering partial-depth panels.We have not settled on the compressive strength we intend to require, but are expecting to fall somewhere between 6,000 and 8,000 psi.We will likely use prestressing strand and black steel in our precast deck panels. We are interested in evaluating FRP reinforcing bars for some applications, but are not considering them in precast panels.We are also evaluating various curing options, but are likely to settle on a combination of steam curing and liquid curing compound."
- Maryland: "We have only used once for a temporary measure. The panels are no longer in service. We don't use because the end ride surface isn't as good as a cast-in-place deck."
- Pennsylvania: No comment
- Maine: "We have used some partial-depth precast deck panels. However, there use have been limited because it is difficult for bridge maintenance inspectors to look at the cast in place portion of deck over time. I am not aware of any spalling problems with these deck panels."
- New Mexico: "We have only used precast deck panels. Have yet to use prestressed panels but hope to in the near future."
- Delaware: "We have considered it in a couple of instances but found alternative solutions."
-

- Figure A.3: Answers to question 2

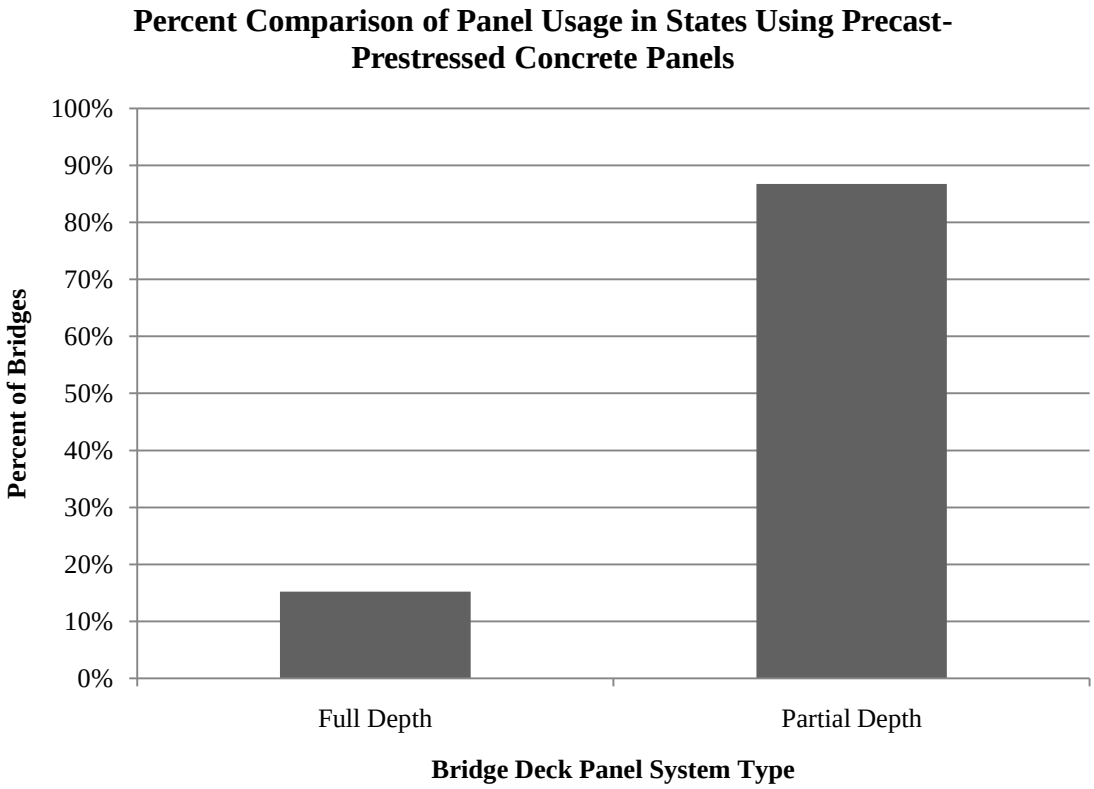

Figure A.4: Survey results for question 3

Question	# States
4. Panel Width (in)	
3"	2
3.5"	5
4"	3
4.5"	0
6"	1
5. Age (years)	
0 to 10	3
10 to 20	6
20 to 30	3
30 to 40	3
40 to 50	0
6. Reinforcement types	
Prestressing reinforcement	14
Epoxy coated reinforcing steel	8
Welded Wire Fabric	1
Mild reinforcement	4
7. 28-Day strength of the panels	
4000 psi	3
5000 psi	4
6000 psi	4
7000 psi	0
8000 psi	1
9000 psi	0
10000 psi	1
9. 28-Day Strength (CIP)	
3500 psi	2
4000 psi	5
5000 psi	2
5800 psi	1
10(A). Curing method	
Moist curing method	11
Liquid membrane curing compound	4
Waterproof cover method	4
10(B). Curing Lengths (at least)	
<= 7 Days	12
8 Days	1
9 Days	1
10 Days	1

Figure A.5: Survey results for questions 4-10 (excluding answers for question 8)

Question	# States
8. Updated guidelines	
Yes	7
No	9

The comments from the states that updated guidelines are as follows:

- Kansas: "LRFD Loads"
- Minnesota: "We used information from MoDOT"
- Tennessee: "We updated standard for the support system during panel placement and deck pours. Previously, the bituminous strips supporting panels were placed on beam flanges. This becomes unwieldy when correcting for camber and grade differences. We now require support outside the flanges as shown."
- Alaska: "Full-depth, precast deck planks (sometimes prestressed) were originally used to replace worn glue-lam timber decks at remote locations. These deck planks are not stressed longitudinally and were intended as a more durable version of the older timber deck system."
- Iowa: "Set 28 day strength of panels to 10000 psi."
- Georgia: (Used partial-depth panels a lot in time period 1980-1995; however, the contractors stopped using them) "Took them out of specifications."
- Missouri: "Panel thickness reduced from 3.5" to 3" to increase top concrete thickness from 5" to 5.5" to reduce reflective cracking at the joints where panels meet. Concrete strength rose from 5000 psi to 6000 psi in order to provide corrosion protection to the strands. Min. joint filler increased 3/4" to 1" to permit better consolidation and firm bearing."

Question	# States
11. Partial-depth panel joint construction	
Compressible filler	3*
Cast-in-place concrete	1
Tight fit	1
Butt-joints	1**
None	8
12. Full-depth panel joint construction	
Compressible filler	2
Grouted femail to femail joints	1
Cast-in-place concrete	1

* Edges of panels are beveled to slightly above the bottom with compressible filler placed to seal the joint prior to pouring of topping.
**Transverse cracking is inevitable as wet concrete will shrink differentially than beams or in this case, beams and deck panels. If decks are poured full depth, cracks occur every 4 ft, with panels, every 8 ft.

Figure A.6: Survey results for questions 8, 11 and 12

Question	# States
13. Problems observed	
Transvers cracks in CIP	8
Longitudinal cracks in CIP	6
Cracks in the bottom side of panels	3
Seepage at the Joints	4
Efflorescence at the joints	1
Rust stains of deck panels along tendons	1
Concrete spalling at the joints	1
Corrosion of Reinforcement	1
14. Mitigation of Problems	
Polymer overlay	1
Epoxy injection	2
Deck replacement	2
Deck crack pouring	3
Chip seal	2
HMWMA	1
Water-proofing membrane w/asphalt overlay	1
Concrete sealer(star macro deck and indeck)	1
Total deck surface treatment	2
Linseed oil	1
15(A). Deicing Tactics	
Conventional road salt	9
Chloride salts	6
Brine Solutions	1
Abrasives	1
Magnetism Chloride	1
None	4
15(B). Deicing Usage per/year	
0 to 10	7
10 to 20	5
20 to 30	1
30 to 40	1

Figure A.7: Survey results for questions 13-15

Question	# States
16. Deck joint tactic	
Silicon sealing	4*
Hot pour sealing	2
Methacrylate resin treatment	6
None	1

* States reporting this deck joint maintenance tactic reported the frequency as follows:

- At time of construction
- Every 2-3 years
- Every 5 years
- Every 10 years

Below is a chart summarizes the survey results of question 17 in response to the type of girder system used to support PPC panel deck systems.

Girder Types Used for Precast-Prestressed Panel Deck Systems

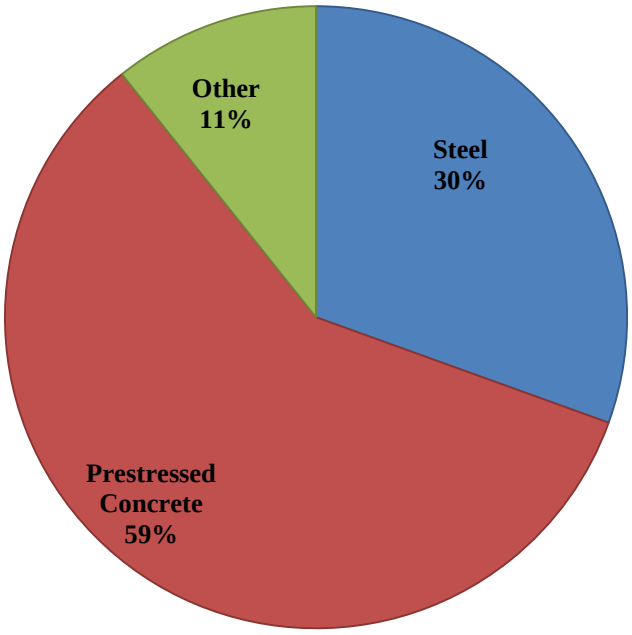

Figure A.8: Survey results for questions 16 and 17

APPENDIX B

ANALYSIS OF TENDON RUPTURE ON THE SYSTEM

B. ANALYSIS OF TENDON RUPTURE ON THE SYSTEM

1. INTRODUCTION

This appendix provides additional information and results of the analysis of tendon rupture. This analysis was performed on Bridge A4709 located in Mexico, MO. Girders on Bridge A4709 have three different girder flange widths, 10 in. (Case-1), 18 in. (Case-2) and 13 in. (Case-3), resulting in three different deck span lengths and three different analyses.

2. CONTENTS

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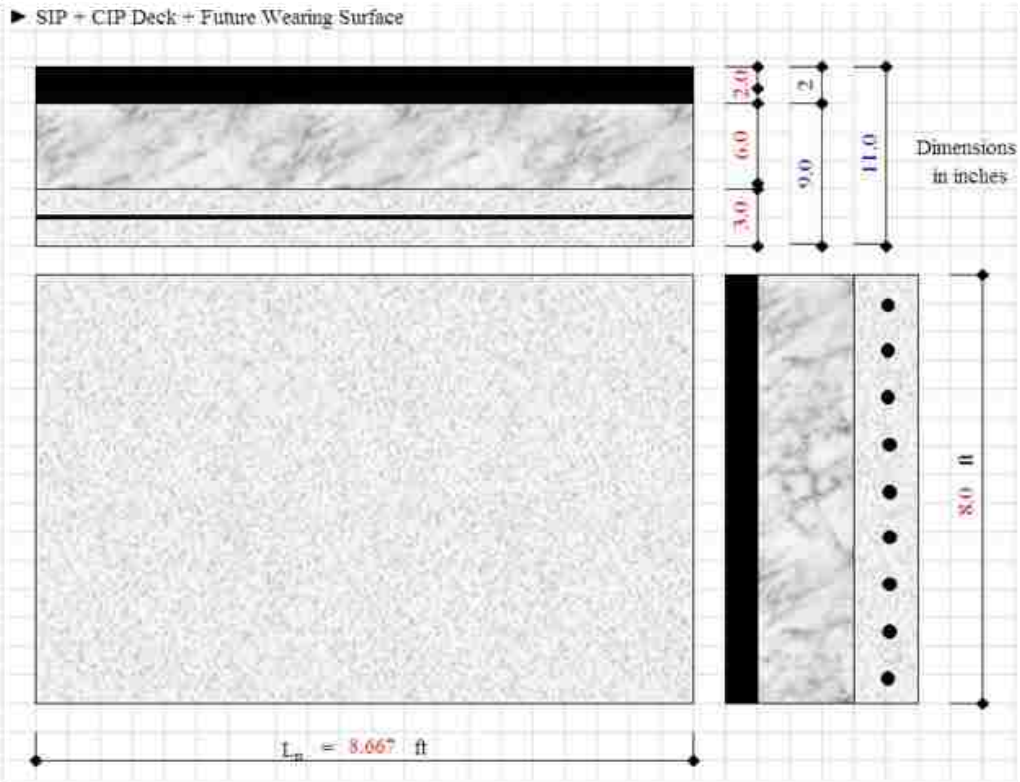

Figure B.1: Dimensions used for Case-1 of Bridge A4709 analysis

Table B.1: Case-1 moment capacity results for tendon loss

M_u (kip-ft/ft)	1.33Mu (kip-ft/ft)	$M_{service}$ (kip-ft/ft)	No. of tendons per panel	% Tendons lost	M_n (kip-ft/ft)	OK/NG	
						$1.33M_u$(kip-ft/ft)	$M_{service}$(kip-ft/ft)
16.66	22.16	14.32	23	0.0%	35.56	O.K	O.K
16.66	22.16	14.32	22	4.3%	34.22	O.K	O.K
16.66	22.16	14.32	21	8.7%	32.88	O.K	O.K
16.66	22.16	14.32	20	13.0%	31.52	O.K	O.K
16.66	22.16	14.32	19	17.4%	30.14	O.K	O.K
16.66	22.16	14.32	18	21.7%	28.76	O.K	O.K
16.66	22.16	14.32	17	26.1%	27.36	O.K	O.K
16.66	22.16	14.32	16	30.4%	25.95	O.K	O.K
16.66	22.16	14.32	15	34.8%	24.53	O.K	O.K
16.66	22.16	14.32	14	39.1%	23.10	O.K	O.K
16.66	22.16	14.32	13	43.5%	21.65	N.G	O.K
16.66	22.16	14.32	12	47.8%	20.19	N.G	O.K
16.66	22.16	14.32	11	52.2%	18.72	N.G	O.K
16.66	22.16	14.32	10	56.5%	17.23	N.G	O.K
16.66	22.16	14.32	9	60.9%	15.73	N.G	O.K
16.66	22.16	14.32	8	65.2%	14.22	N.G	N.G

*OK = satisfies $\varphi M_n \geq 1.33M_u$ and NG = $\varphi M_n \geq 1.33M_u$ not satisfied

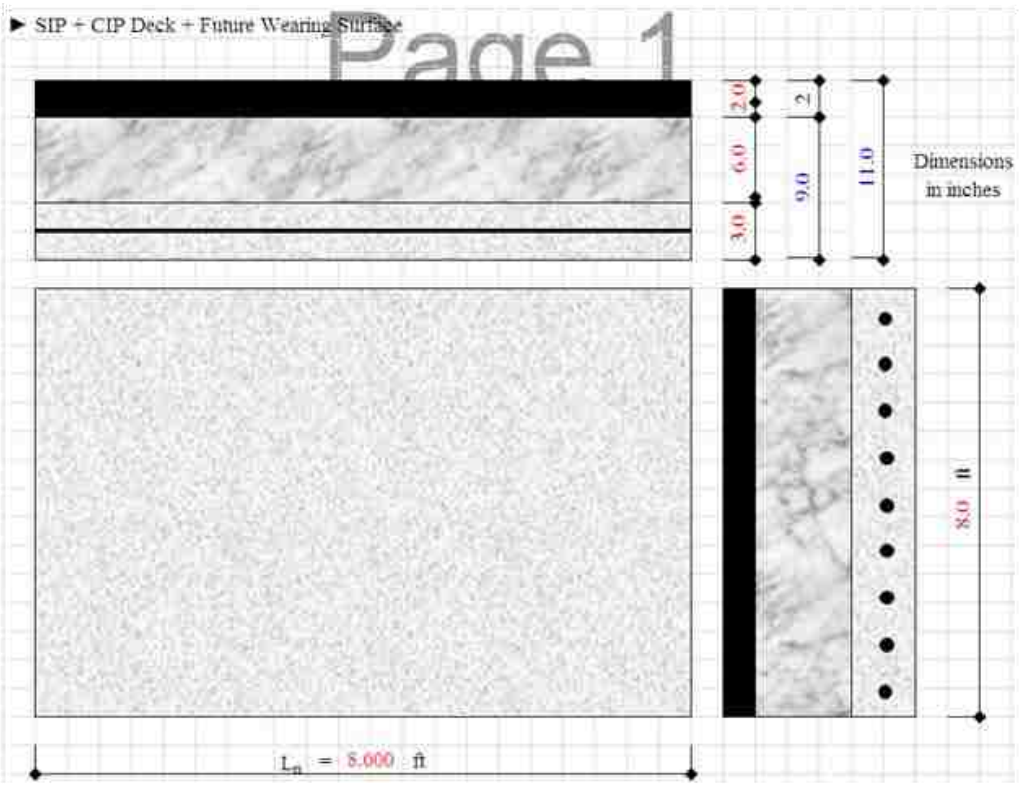

Figure B.2: Dimensions used for Case-2 of Bridge A4709 analysis

Table B.2: Case-2 moment capacity results for tendon loss

M_u (kip-ft/ft)	$1.33M_u$ (kip-ft/ft)	$M_{service}$ (kip-ft/ft)	No. of tendons per panel	% Tendons lost	M_n (kip-ft/ft)	OK/NG	
						$1.33M_u$(kip-ft/ft)	$M_{service}$(kip-ft/ft)
16.46	21.90	14.14	23	0.0%	36.12	O.K	O.K
16.46	21.90	14.14	22	4.3%	34.92	O.K	O.K
16.46	21.90	14.14	21	8.7%	33.70	O.K	O.K
16.46	21.90	14.14	20	13.0%	32.47	O.K	O.K
16.46	21.90	14.14	19	17.4%	31.23	O.K	O.K
16.46	21.90	14.14	18	21.7%	29.98	O.K	O.K
16.46	21.90	14.14	17	26.1%	28.72	O.K	O.K
16.46	21.90	14.14	16	30.4%	27.44	O.K	O.K
16.46	21.90	14.14	15	34.8%	26.16	O.K	O.K
16.46	21.90	14.14	14	39.1%	24.86	O.K	O.K
16.46	21.90	14.14	13	43.5%	23.56	O.K	O.K
16.46	21.90	14.14	12	47.8%	22.23	O.K	O.K
16.46	21.90	14.14	11	52.2%	20.90	N.G	O.K
16.46	21.90	14.14	10	56.5%	19.56	N.G	O.K
16.46	21.90	14.14	9	60.9%	18.20	N.G	O.K
16.46	21.90	14.14	8	65.2%	16.83	N.G	O.K
16.46	21.90	14.14	7	69.6%	15.45	N.G	O.K
16.46	21.90	14.14	6	73.9%	14.06	N.G	N.G

*OK = satisfies $\varphi M_n \geq 1.33M_u$ and NG = $\varphi M_n \geq 1.33M_u$ not satisfied

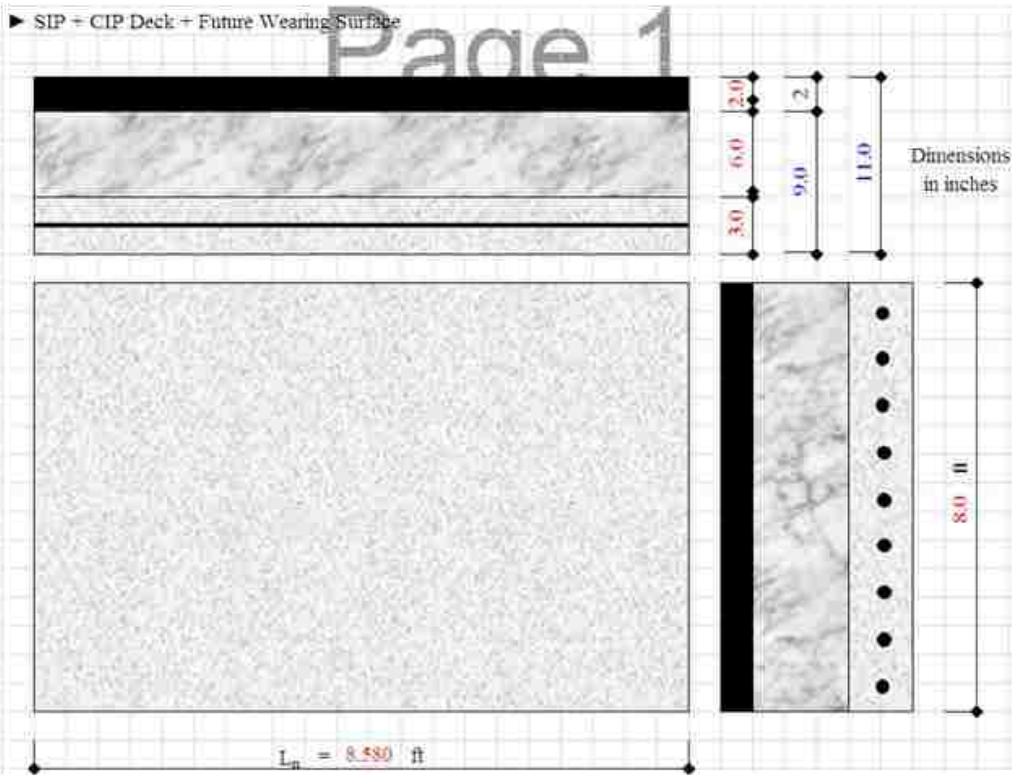

Figure B.3: Dimensions used for Case-3 of Bridge A4709 analysis

Table B.3: Case-3 moment capacity results for tendon loss

M_u (kip-ft/ft)	1.33Mu (kip-ft/ft)	$M_{service}$ (kip-ft/ft)	No. of tendons per panel	% Tendons lost	M_n (kip-ft/ft)	OK/NG	
						$1.33M_u$(kip-ft/ft)	$M_{service}$(kip-ft/ft)
16.63	22.12	14.30	23	0.0%	35.38	O.K	O.K
16.63	22.12	14.30	22	4.3%	34.05	O.K	O.K
16.63	22.12	14.30	21	8.7%	32.71	O.K	O.K
16.63	22.12	14.30	20	13.0%	31.35	O.K	O.K
16.63	22.12	14.30	19	17.4%	29.99	O.K	O.K
16.63	22.12	14.30	18	21.7%	28.61	O.K	O.K
16.63	22.12	14.30	17	26.1%	27.22	O.K	O.K
16.63	22.12	14.30	16	30.4%	25.82	O.K	O.K
16.63	22.12	14.30	15	34.8%	24.41	O.K	O.K
16.63	22.12	14.30	14	39.1%	22.98	O.K	O.K
16.63	22.12	14.30	13	43.5%	21.54	N.G	O.K
16.63	22.12	14.30	12	47.8%	20.09	N.G	O.K
16.63	22.12	14.30	11	52.2%	18.63	N.G	O.K
16.63	22.12	14.30	10	56.5%	17.15	N.G	O.K
16.63	22.12	14.30	9	60.9%	15.66	N.G	O.K
16.63	22.12	14.30	8	65.2%	14.15	N.G	N.G

*OK = satisfies $\varphi M_n \geq 1.33M_u$ and NG = $\varphi M_n \geq 1.33M_u$ not satisfied

APPENDIX C

DATA FROM BRIDGE A4709 FIELD INVESTIGATION

C. DATA FROM BRDGE A4709 FIELD INVESTIGATION

1. INTRODUCTION

This appendix provides additional data to that included in Section 3.2 and obtained during the field investigation conducted on Bridge A4709 using the following techniques: visual inspection, half-cell potential, resistivity, rebound hammer and core drilling.

2. CONTENTS

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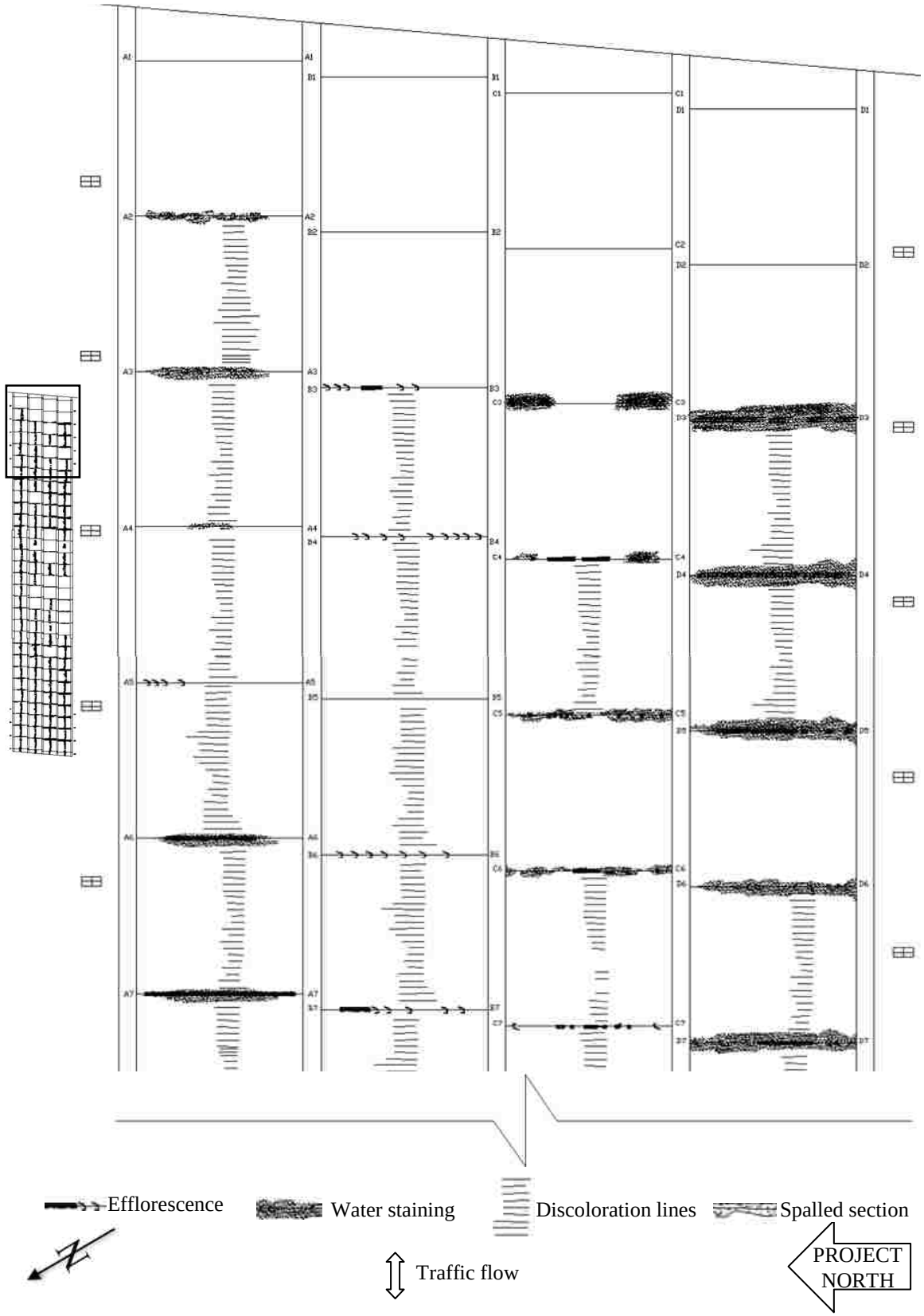


Figure C.1: Visual inspection data from the bottom surface of the bridge deck

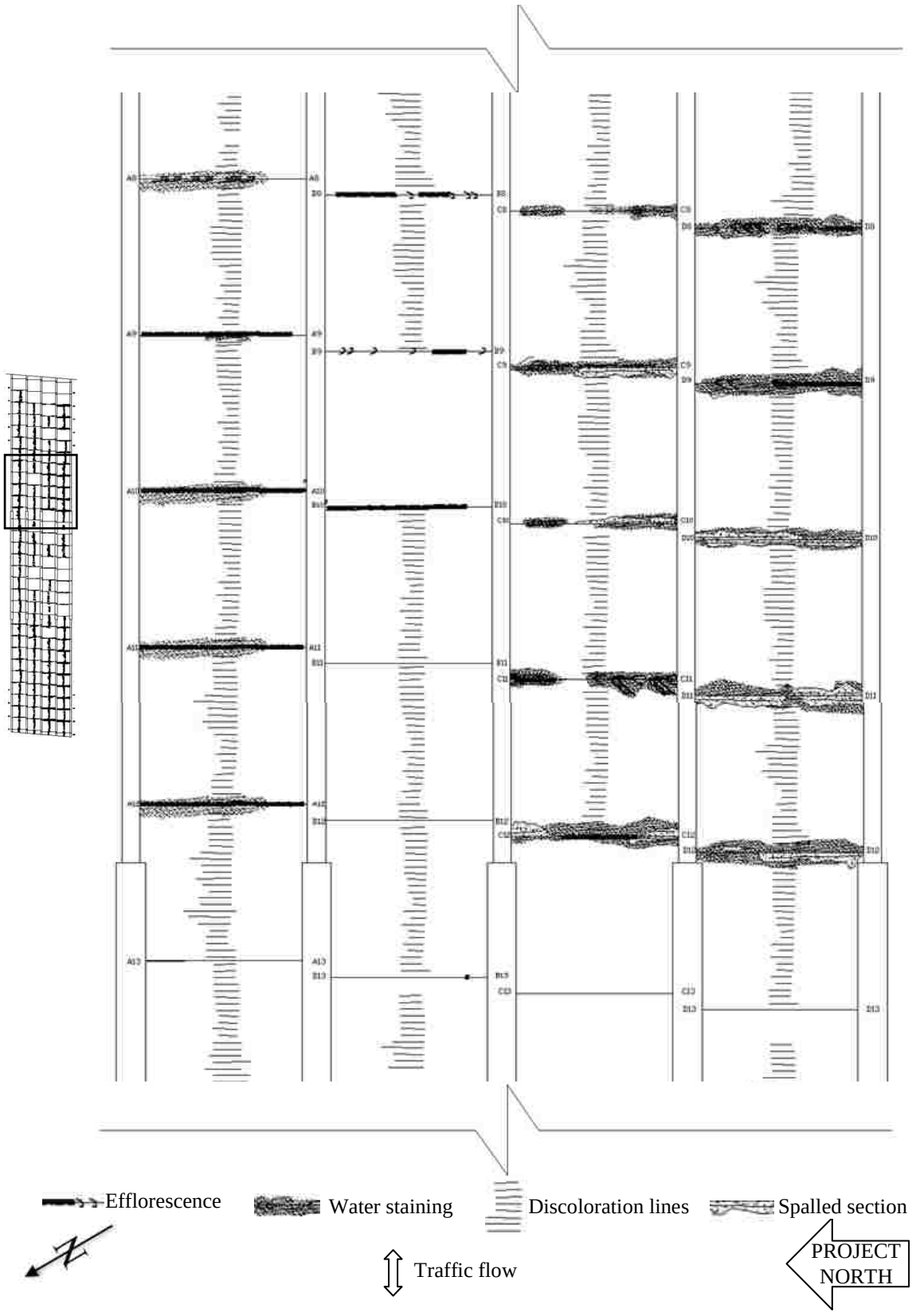


Figure C.1: Visual inspection data from the bottom surface of the bridge deck (Cont.)

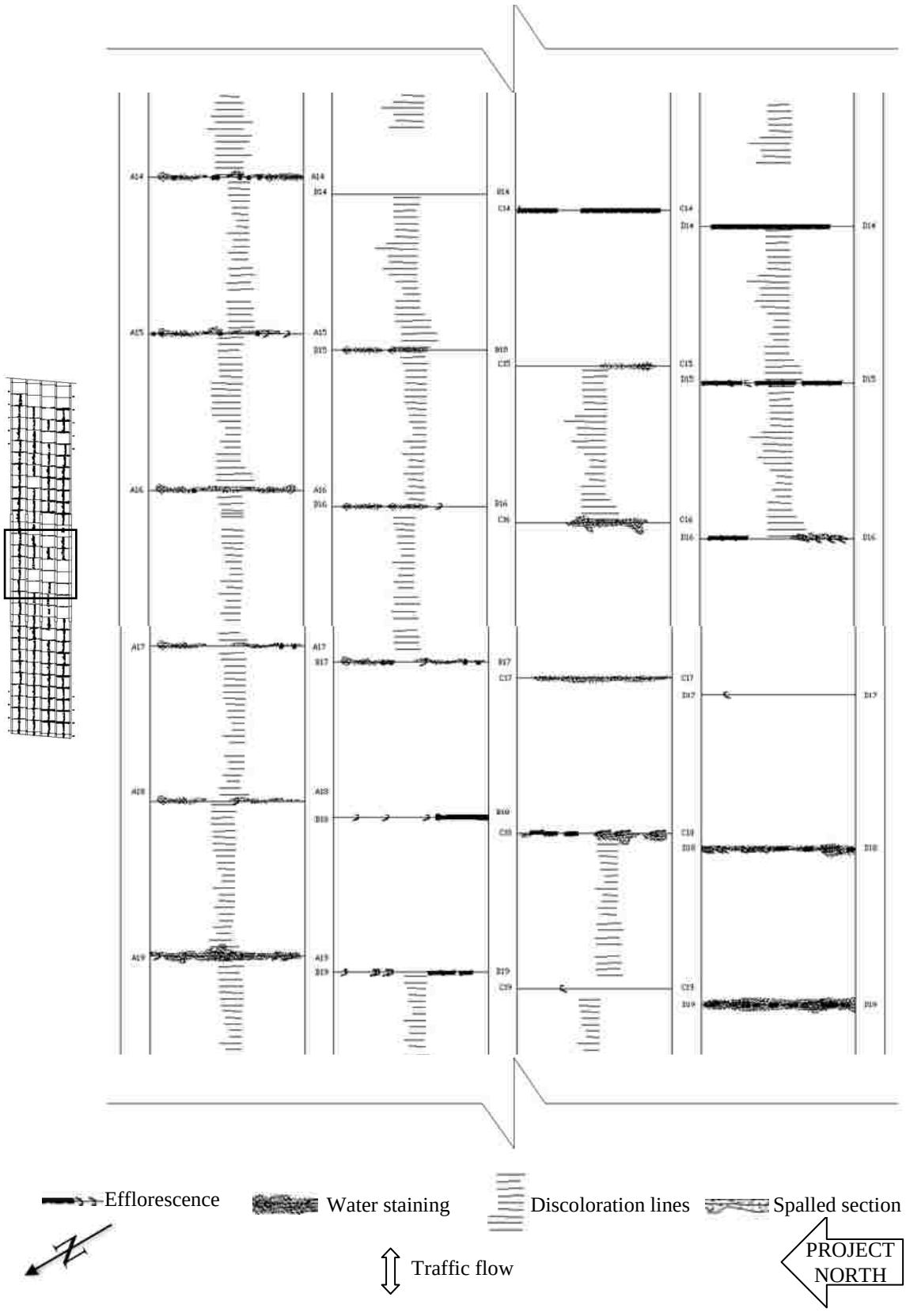


Figure C.1: Visual inspection data from the bottom surface of the bridge deck (Cont.)

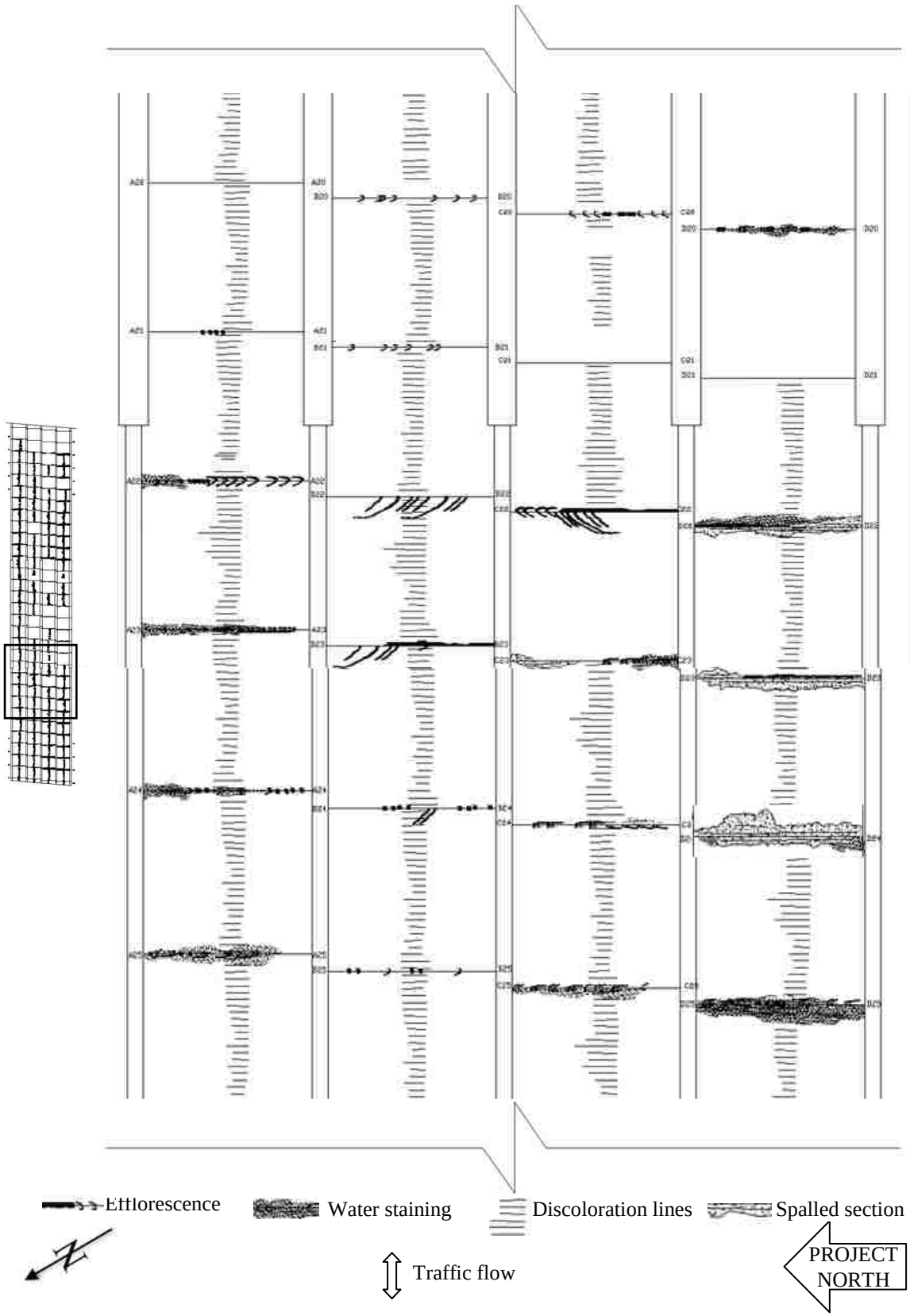


Figure C.1: Visual inspection data from the bottom surface of the bridge deck (Cont.)

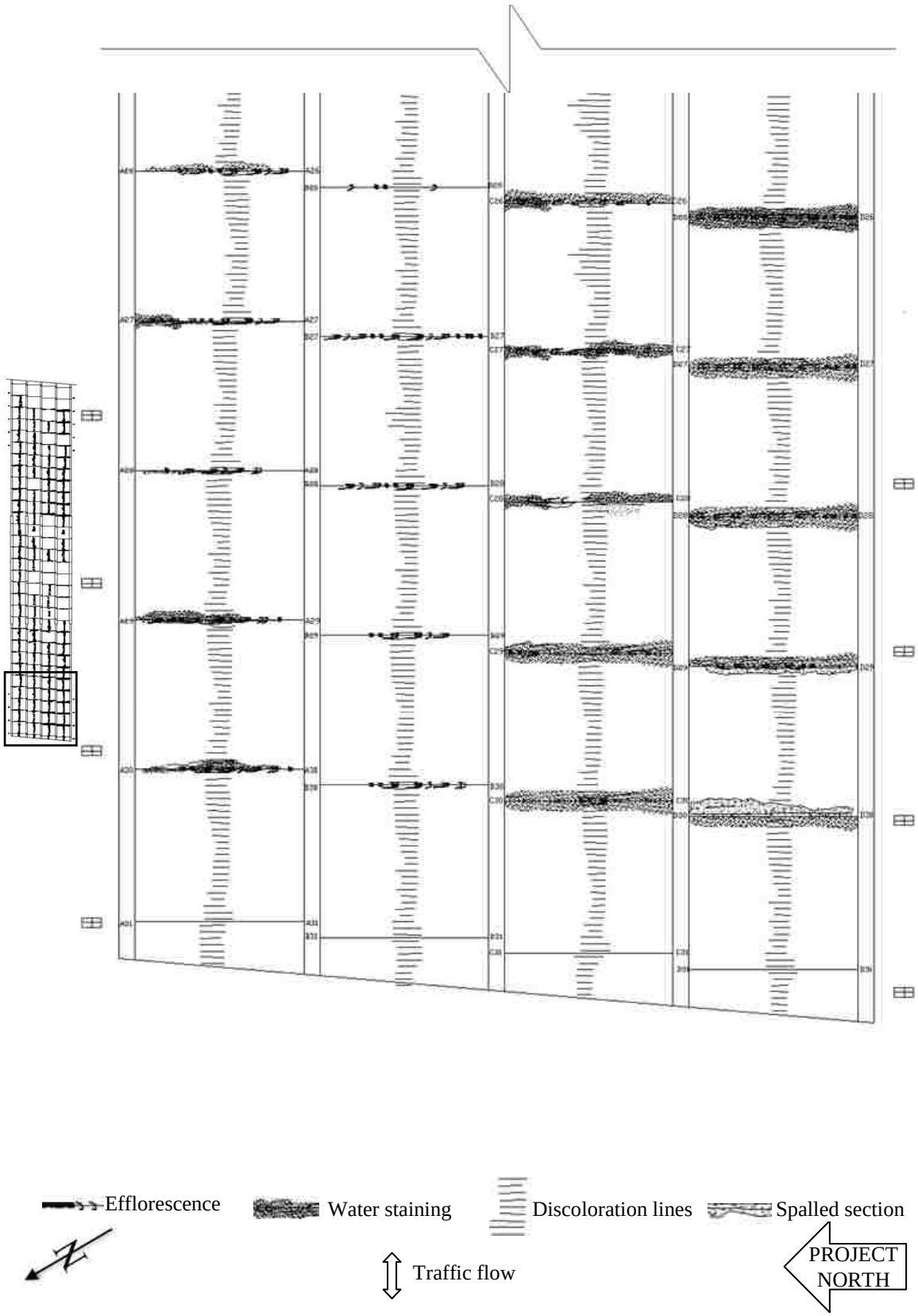


Figure C.1: Visual inspection data from the bottom surface of the bridge deck (Cont.)

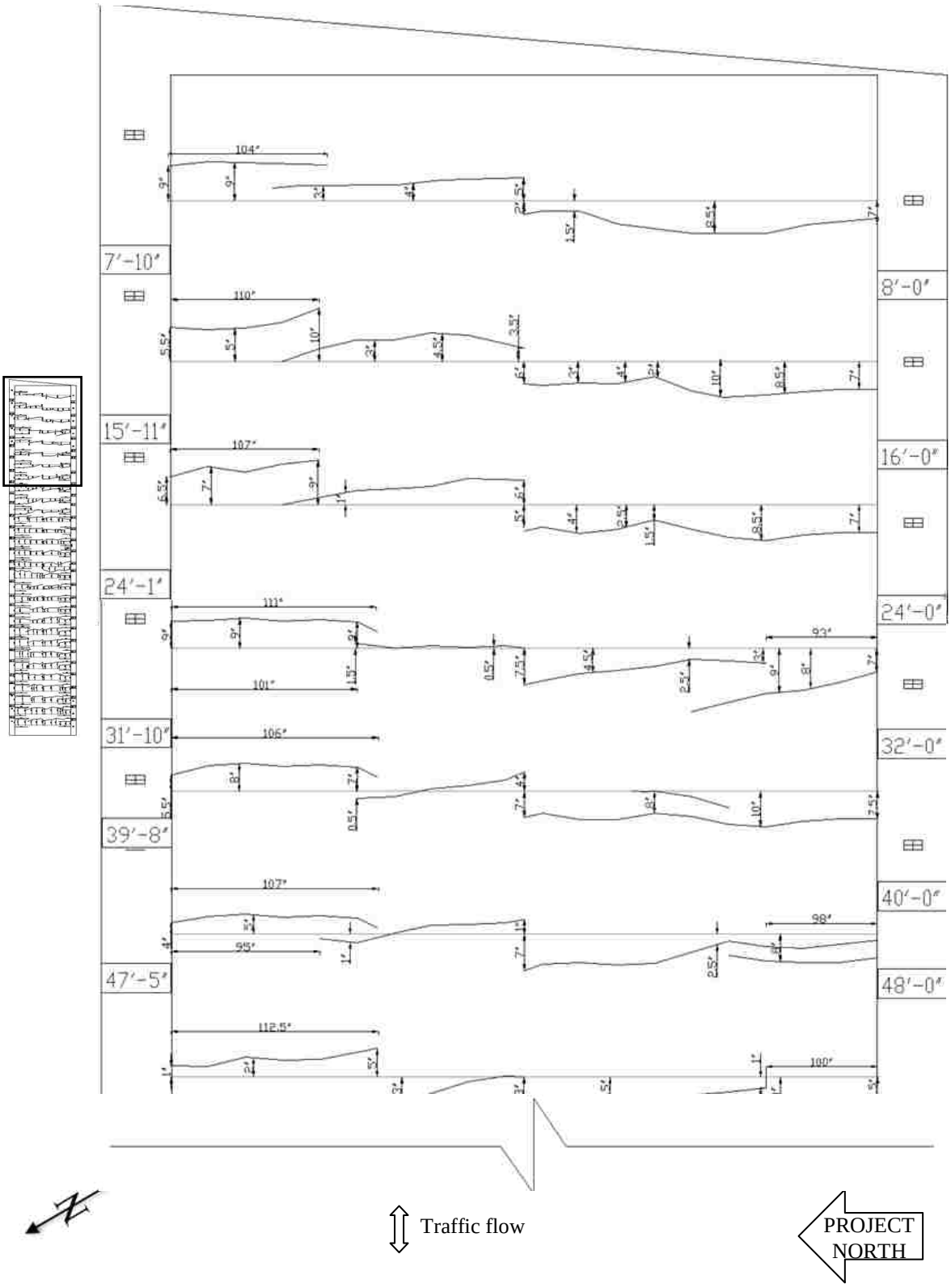


Figure C.2: Visual inspection data from the top surface of the bridge deck - crack map and drain locations

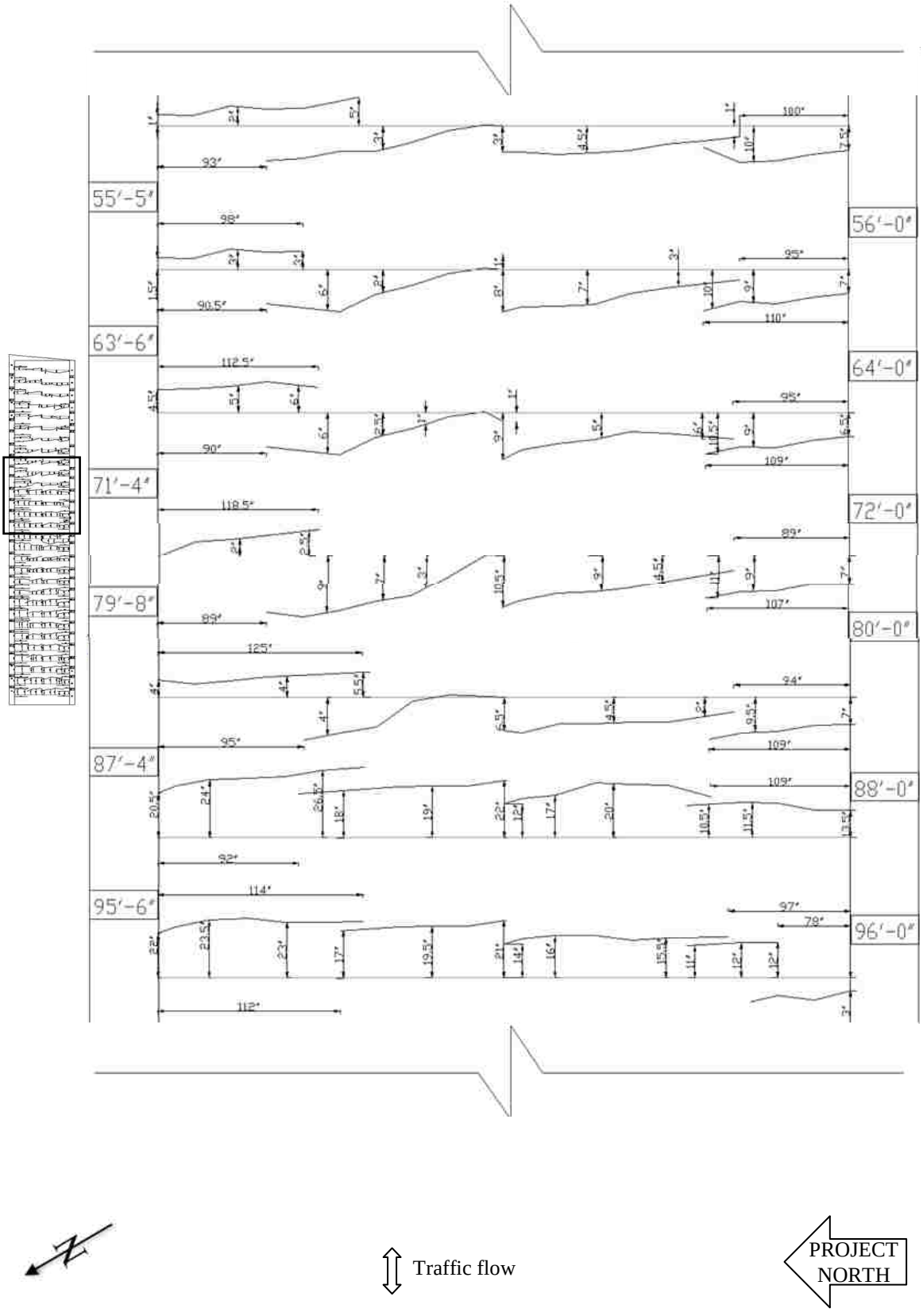


Figure C.2: Visual inspection data from the top surface of the bridge deck (Cont.)

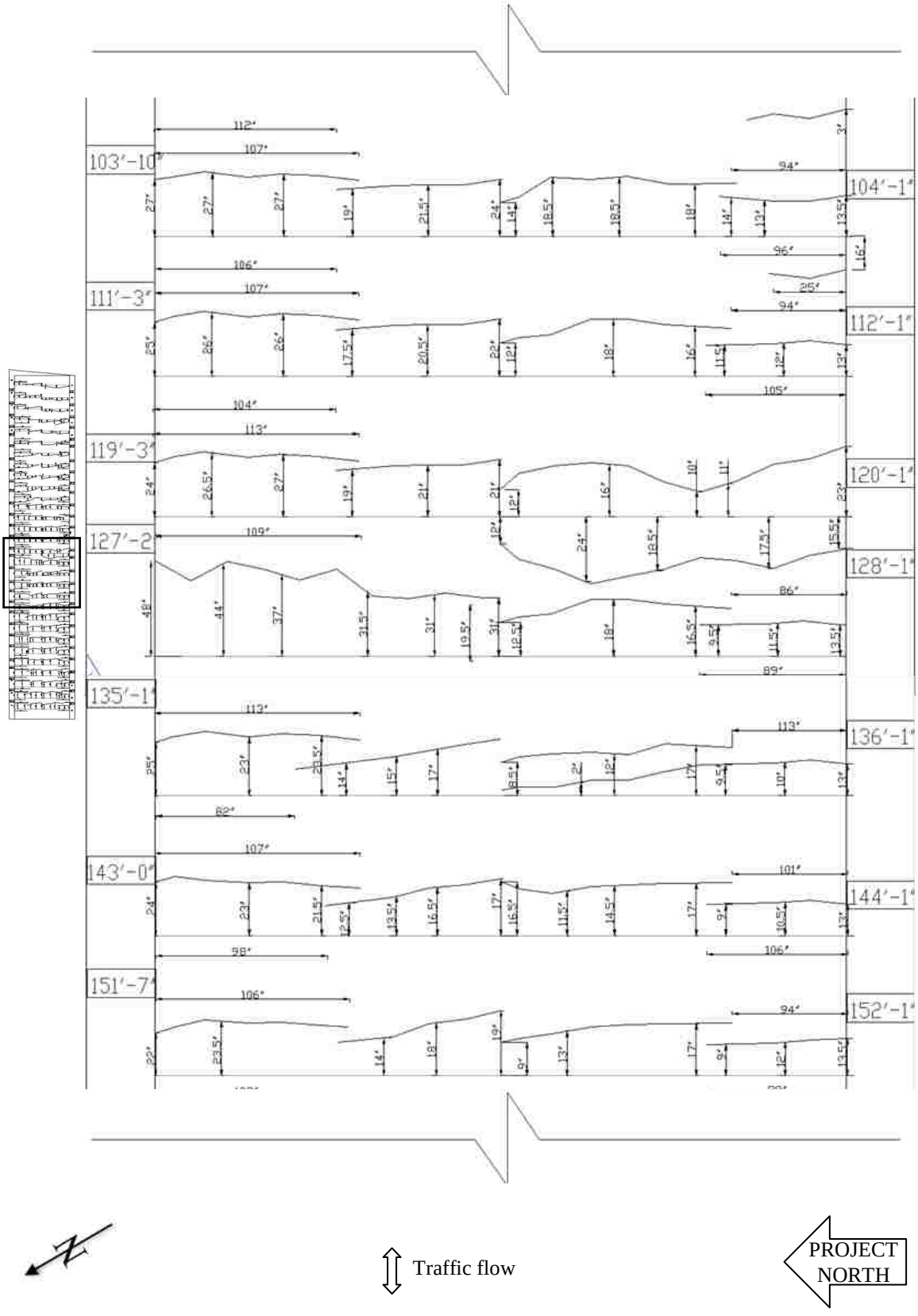


Figure C.2: Visual inspection data from the top surface of the bridge deck (Cont.)

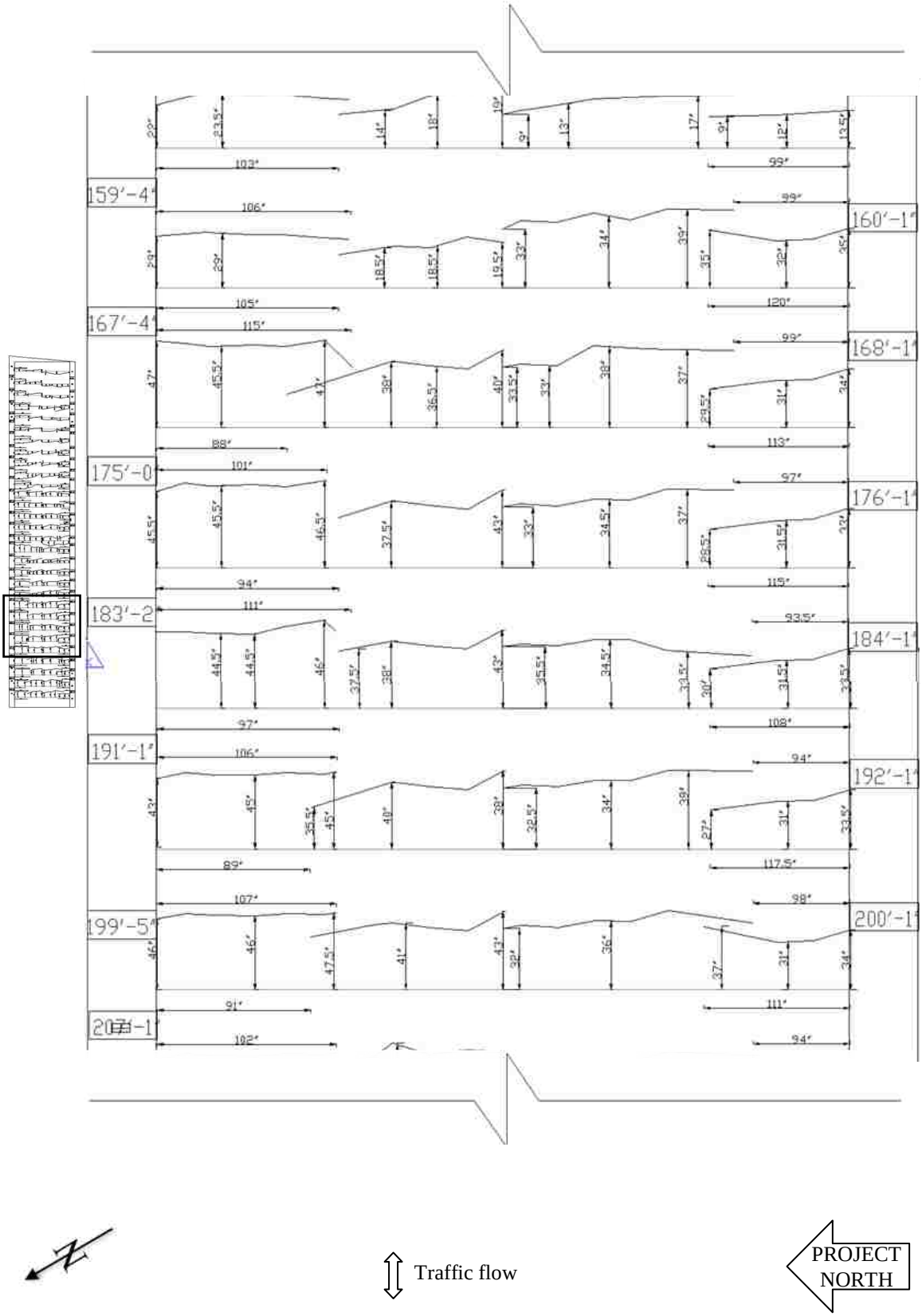


Figure C.2: Visual inspection data from the top surface of the bridge deck (Cont.)

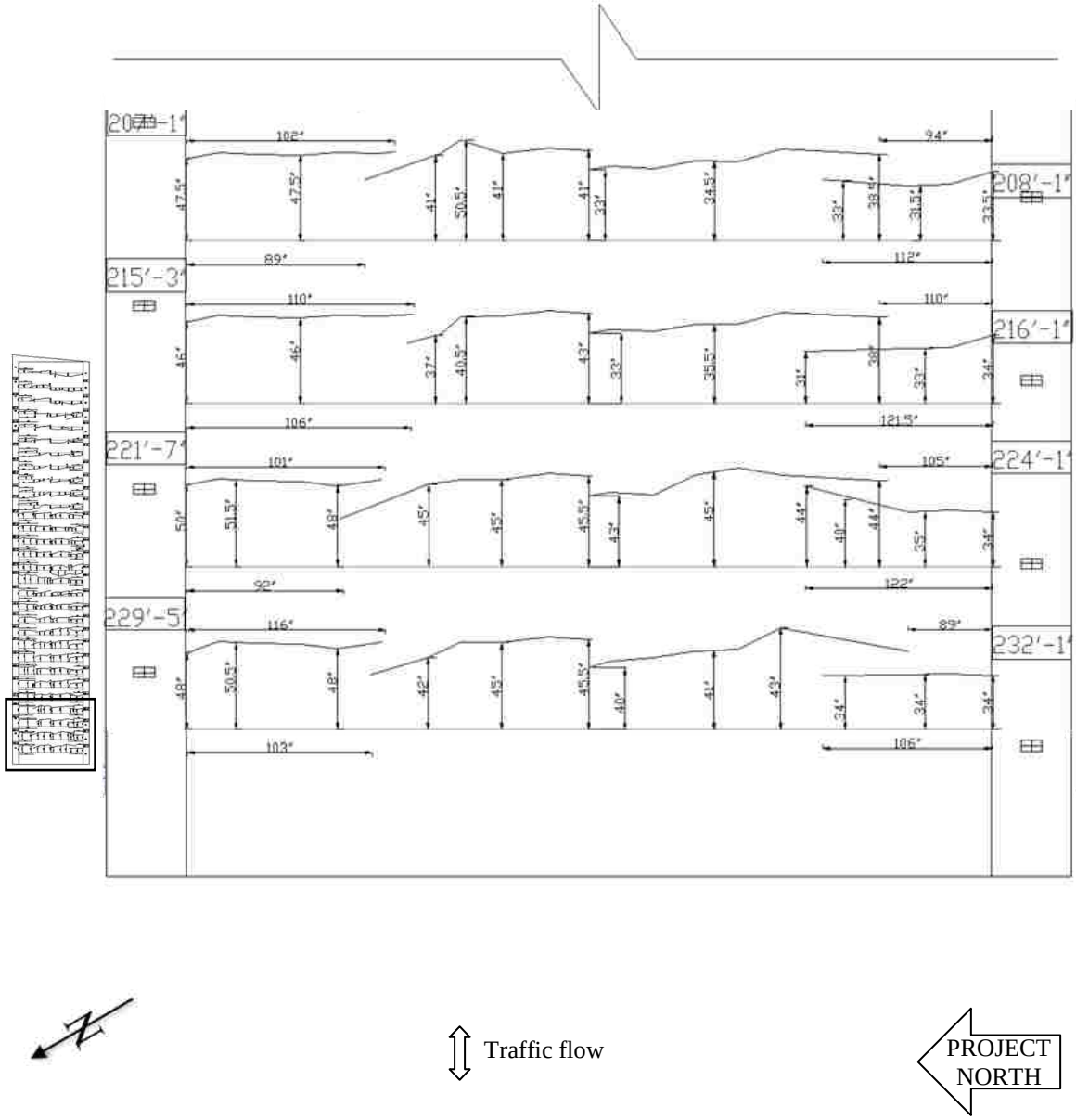


Figure C.2: Visual inspection data from the top surface of the bridge deck (Cont.)

Table C.1: Half-cell potential data from Bridge A4709

Panel	Potential difference (mV)*	Tendon Description	Corrosion
D23-22	-583	Fully exposed and fractured	probable
	-524	Fully exposed and fractured	probable
	-538	Fully exposed and fractured	probable
	-497	Fully exposed and fractured	probable
	-514	Fully exposed and fractured	probable
	-454	Partially exposed	probable
	-460	Partially exposed	probable
	-388	Partially exposed	probable
	-365	Partially exposed	probable
D22-23	-600	Partially exposed	probable
	-635	Partially exposed	probable
	-479	Partially exposed	probable
	-300	Partially exposed	probable
D23-24	-445	Fully exposed, not fractured	probable
	-362	Fully exposed, not fractured	probable
	-383	Fully exposed, not fractured	probable
	-320	Fully exposed, not fractured	probable
	-560	Fully exposed, not fractured	probable
	-517	Fully exposed, not fractured	probable
	-570	Fully exposed, not fractured	probable
	-675	Fully exposed, not fractured	probable
D24-23	-395	Partially exposed	probable
	-407	Partially exposed	probable
	-376	Partially exposed	probable
	-320	Partially exposed	probable
D23-24	-445	Partially exposed	probable
	-410	Partially exposed	probable
	-420	Partially exposed	probable
	-400	Partially exposed	probable
	-436	Partially exposed	probable

*Potential difference levels less than -500 mV correspond to corrosion levels producing visible evidence of corrosion; -350 to -500 mV corresponds to a 95% chance of corrosion; -200 to -350 corresponds to a 50% chance of corrosion; and more than -200 corresponds to 5% chance of reinforcement being corroded

Table C.2: Resistivity data from Bridge A4709

Panel	Resistivity (kΩcm)	Current %	Reliable*	Corrosion Probability
A24-25	47	100	yes	unlikely
A24-25	35	90	yes	unlikely
A24-25	99	20	no	-
A24-25	23	100	yes	unlikely
A24-25	13	100	yes	unlikely
A24-25	77	42	no	-
A23-24	55	50	yes	unlikely
A23-24	30	100	yes	unlikely
A23-24	56	100	yes	unlikely
A23-24	63	100	yes	unlikely
A23-24	51	100	yes	unlikely
A22-23	38	36	no	-
A22-23	42	61	yes	unlikely
A22-23	34	100	yes	unlikely
A22-23	18	100	yes	unlikely
A22-23	62	48	no	-
B24-25	0	-	-	-
B23-24	0	-	-	-
B22-23	0	-	-	-
C24-25	29	100	yes	unlikely
C24-25	47	60	yes	unlikely
C24-25	99	47	no	-
C23-24	77	41	no	-
C23-24	49	81	yes	unlikely
C23-24	21	78	yes	unlikely
C23-24	39	52	yes	unlikely
C23-24	46	48	no	-
C23-24	95	42	no	-
C23-24	87	28	no	-
C23-24	50	51	yes	unlikely
C23-24	59	55	yes	unlikely
C22-23	51	64	yes	unlikely
D24-25	99	100	yes	unlikely
D24-25	99	72	yes	unlikely
D24-25	99	98	yes	unlikely
D24-25	99	100	yes	unlikely
D24-25	75	100	yes	unlikely
D24-25	56	100	yes	unlikely

Table C.2: Resistivity data from Bridge A4709 (Cont.)

D24-25	16	100	yes	unlikely
D24-25	36	79	yes	unlikely
D24-25	36	60	yes	unlikely
D24-25	38	65	yes	unlikely
D24-25	26	89	yes	unlikely
D24-25	53	42	no	-
D23-24	21	61	yes	unlikely
D23-24	68	50	yes	unlikely
D23-24	99	38	no	-
D23-24	18	61	yes	unlikely
D22-23	41	44	no	-
D22-23	33	100	yes	unlikely
D22-23	21	100	yes	unlikely
D22-23	10	100	yes	possible
D22-23	14	76	yes	unlikely
D22-23	23	100	yes	unlikely
D22-23	16	100	yes	unlikely
D12-13	64	66	yes	unlikely
D12-13	85	66	yes	unlikely
D12-13	99	76	yes	unlikely
D12-13	53	82	yes	unlikely
D12-13	99	48	no	-
D12-13	99	20	no	-
D12-13	99	32	no	-
D12-13	99	10	no	-
D12-13	99	27	no	-
D12-13	99	20	no	-
D12-13	99	42	no	-
D12-13	99	45	no	-
C11-12	99	60	yes	unlikely
C11-12	99	80	yes	unlikely
C11-12	99	68	yes	unlikely
C11-12	99	100	yes	unlikely
C11-12	51	100	yes	unlikely
C11-12	55	75	yes	unlikely
C11-12	37	-	no	-
C11-12	84	-	no	-
C12-13	0	-	-	-
C13-14	0	-	-	-

Table C.2: Resistivity data from Bridge A4709 (Cont.)

B13-14	0	-	-	-
B12-13	0	-	-	-
B11-12	0	-	-	-
A11-12	55	95	yes	unlikely
A11-12	99	32	no	-
A11-12	30	100	yes	unlikely
A11-12	54	100	yes	unlikely
A11-12	66	100	yes	unlikely
A11-12	52	100	yes	unlikely
A11-12	29	100	yes	unlikely
A12-13	99	10	no	-
A12-13	99	18	no	-
A13-14	99	12	no	-
A13-14	99	10	no	-

* A reading with a current percentage between 50% and 100% indicates a reliable reading, between 20% and 50% indicates the value is not exact and any readings below 20% indicate a very poor connection between the four-prong probe and the concrete of interest (Section 2.4.2.5).

Table C.3: Rebound hammer data from Bridge A4709

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values*	Rebound (AVG 2)	Discarded values*	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
D23-D24	36	3600	31.9	4.1	32.0	4.0	Yes	2663	8543	7594
	34	3050		2.1		2.0			8069	
	~~25~~	~~1350~~		~~6.9~~		7.0				
	29	2000		2.9		3.0			6882	
	31	2400		0.9		1.0			7357	
	35	3300		3.1		3.0			8306	
	35	3300		3.1		3.0			8306	
	26	1450		5.9		6.0			6170	
	~~14~~	~~no value~~		17.9		18.0				
	~~38~~	~~4200~~		~~6.1~~		6.0				
	~~40~~	~~4750~~		8.1		8.0				
	30	2200		1.9		2.0			7119	
D24-D25	36	3600	31.7	4.3	Not needed values all < 6		Yes	2620	8543	7523
	~~37~~	~~3850~~		5.3						
	30	2200		1.7					7119	
	36	3600		4.3					8543	
	33	2800		1.3					7831	
	36	3600		4.3					8543	
	34	3050		2.3					8069	
	32	2600		0.3					7594	
	26	1450		5.7					6170	
	~~26~~	~~1450~~		5.7						
	28	1850		3.7					6645	
	26	1450		5.7					6170	
D25-D26	35	3300	35.2	0.2	Not needed values all < 6		Yes	3380	8306	8353
	36	3600		0.8					8543	
	36	3600		0.8					8543	
	32	2600		3.2					7594	
	36	3600		0.8					8543	
	34	3050		1.2					8069	
	35	3300		0.2					8306	
	37	3850		1.8					8781	
	35	3300		0.2					8306	
	36	3600		0.8					8543	

*For panels with more than ten readings, the highest and the lowest values were discarded. The remaining 10 values were then averaged, and if the rebound numbers varied from the average by more than 6 units, they were discarded per ASTM C 805-08. The average was then recalculated with the remaining values, and if the remaining values varied from the average by more than 6 units, then they were discarded. If more than two values were discarded in the second round, the data set would not meet specification (ASTM C 805-08)

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
C23-C24	36	3600	33.8	2.2	Not needed values all < 6		Yes	3050	8543	8021
	37	3850		3.2					8781	
	34	3050		0.2					8069	
	35	3300		1.2					8306	
	30	2200		3.8					7119	
	32	2600		1.8					7594	
	~~28~~	~~1850~~		5.8						
	35	3300		1.2					8306	
	36	3600		2.2					8543	
	31	2400		2.8					7357	
	~~40~~	~~4750~~		6.2						
	32	2600		1.8					7594	
C24-C25	33	2800	33.8	0.8	Not needed values all < 6		Yes	2945	7831	7926
	33	2800		0.8					7831	
	33	2800		0.8					7831	
	36	3600		2.3					8543	
	39	4450		5.3					9255	
	~~40~~	~~4750~~		6.3						
	31	2400		2.8					7357	
	~~31~~	~~2400~~		2.8						
	32	2600		1.8					7594	
	32	2600		1.8					7594	
	33	2800		0.8					7831	
	32	2600		1.8					7594	
C25-C26	34	3050	35.6	1.6	Not needed values all < 6		Yes	3505	8069	8448
	39	4450		3.4					9255	
	34	3050		1.6					8069	
	~~30~~	~~2200~~		5.6						
	38	4200		2.4					9018	
	34	3050		1.6					8069	
	~~39~~	~~4450~~		3.4						
	37	3850		1.4					8781	
	36	3600		0.4					8543	
	36	3600		0.4					8543	
	32	2600		3.6					7594	
	36	3600		0.4					8543	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
C26-C27	34	3050	32.9	1.1	Not needed values all < 6		Yes	2850	8069	7808
	35	3300		2.1					8306	
	34	3050		1.1					8069	
	35	3300		2.1					8306	
	37	3850		4.1					8781	
	32	2600		0.9					7594	
	35	3300		2.1					8306	
	~~24~~	~~1200~~		8.9						
	29	2000		3.9					6882	
	30	2200		2.9					7119	
	28	1850		4.9					6645	
B23-B24	38	4200	34.5	3.5	Not needed values all < 6		Yes	3240	9018	8200
	~~39~~	~~4450~~		4.5						
	30	2200		4.5					7119	
	32	2600		2.5					7594	
	34	3050		0.5					8069	
	34	3050		0.5					8069	
	~~26~~	~~1450~~		8.5						
	32	2600		2.5					7594	
	37	3850		2.5					8781	
	38	4200		3.5					9018	
	36	3600		1.5					8543	
	34	3050		0.5					8069	
B24-B25	~~38~~	~~4200~~	34.2	3.8	Not needed values all < 6		Yes	3185		8174
	35	3300		0.8					8306	
	37	3850		2.8					8781	
	37	3850		2.8					8781	
	39	4450		4.8					9255	
	29	2000		5.2					6882	
	~~29~~	~~2000~~		5.2						
	32	2600		2.2					7594	
	30	2200		4.2					7119	
	33	2800		1.2					7831	
	38	4200		3.8					9018	
	32	2600		2.2					7594	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
B25-B26	32	2600	32.2	0.2	Not needed values all < 6		Yes	2665	7594	7647
	34	3050		1.8					8069	
	32	2600		0.2					7594	
	32	2600		0.2					7594	
	32	2600		0.2					7594	
	28	1850		4.2					6645	
	~~38~~	~~4200~~		5.8						
	31	2400		1.2					7357	
	34	3050		1.8					8069	
	35	3300		2.8					8306	
	~~27~~	~~1700~~		5.2						
	32	2600		0.2					7594	
B26-B27	~~38~~	~~4200~~	34.2	3.8	Not needed values all < 6		Yes	3125		8121
	32	2600		2.2					7594	
	34	3050		0.2					8069	
	37	3850		2.8					8781	
	32	2600		2.2					7594	
	33	2800		1.2					7831	
	36	3600		1.8					8543	
	35	3300		0.8					8306	
	36	3600		1.8					8543	
	~~32~~	~~2600~~		2.2						
	33	2800		1.2					7831	
	34	3050		0.2					8069	
A23-A24	26	1450	27.4	1.4	27	1.4	Yes	1606	6170	6348
	26	1450		1.4		1.4			6170	
	~~34~~	~~3050~~		~~6.6~~		6.6				
	26	1450		1.4		1.4			6170	
	24	1200		3.4		3.4			5696	
	24	1200		3.4		3.4			5696	
	26	1450		1.4		1.4			6170	
	~~24~~	~~1200~~		3.4		3.4				
	30	2200		2.6		2.6			7119	
	~~36~~	~~3600~~								
	32	2600		4.6		4.6			7594	
	26	1450		1.4		1.4			6170	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
A24-A25	34	2800	31.4	2.6	32	1.9	Yes	3183	8069	7628
	~~24~~	~~2800~~		7.4		8.1				
	37	2800		5.6		4.9				
	~~38~~	~~3550~~		6.6		5.9				
	36	3600		4.6		3.9			8543	
	30	4750		1.4		2.1			7119	
	29	2400		2.4		3.1			6882	
	36	2700		4.6		3.9			8543	
	~~25~~	~~2700~~		~~6.4~~		7.1				
	30	2800		1.4		2.1			7119	
	30	2700		1.4		2.1			7119	
	27	4100		4.4		5.1			6407	
A25-A26	~~28~~	~~1850~~	33.9	5.9	Not needed values all < 6		Yes	3070		8148
	34	3050		0.1					8069	
	37	3850		3.1					8781	
	32	2600		1.9					7594	
	35	3300		1.1					8306	
	38	4200		4.1					9018	
	33	2800		0.9					7831	
	34	3050		0.1					8069	
	34	3050		0.1					8069	
	~~38~~	~~4200~~		4.1						
	32	2600		1.9					7594	
	30	2200		3.9					7119	
A26-A27	33	2800	33.6	0.6	Not needed values all < 6		Yes	3010	7831	7974
	36	3600		2.4					8543	
	32	2600		1.6					7594	
	~~27~~	~~1700~~		6.6						
	36	3600		2.4					8543	
	30	2200		3.6					7119	
	34	3050		0.4					8069	
	37	3850		3.4					8781	
	30	2200		3.6					7119	
	32	2600		1.6					7594	
	~~40~~	~~4750~~		6.4						
	36	3600		2.4					8543	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
A11-A12	37	3850	35.5	1.5	Not needed values all < 6		Yes	3475	8781	8425
	40	4750		4.5					9493	
	34	3050		1.5					8069	
	36	3600		0.5					8543	
	36	3600		0.5					8543	
	37	3850		1.5					8781	
	~~41~~	~~5100~~		5.5						
	34	3050		1.5					8069	
	33	2800		2.5					7831	
	32	2600		3.5					7594	
	36	3600		0.5					8543	
	~~32~~	~~3600~~		3.5						
A12-A13	38	4200	36.4	1.6	Not needed values all < 6		Yes	3740	9018	8638
	38	4200		1.6					9018	
	~~40~~	~~4750~~		3.6						
	32	2600		4.4					7594	
	38	4200		1.6					9018	
	38	4200		1.6					9018	
	35	3300		1.4					8306	
	34	3050		2.4					8069	
	36	3600		0.4					8543	
	38	4200		1.6					9018	
	37	3850		0.6					8781	
	~~31~~	~~2400~~		5.4						
A13-A14	32	2600	35.0	3.0	36	4.3	Yes	3686	7594	8306
	39	4450		4.0		2.7			9255	
	37	3850		2.0		0.7			8781	
	39	4450		4.0		2.7			9255	
	37	3850		2.0		0.7			8781	
	~~26~~	~~1450~~		~~9.0~~		10.3			6170	
	35	3300		0.0		1.3			8306	
	35	3300		0.0		1.3			8306	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
B12-B13	~~28~~	~~1850~~	36.4	8.4	Not needed values all < 6		Yes	3715		8638
	36	3600		0.4					8543	
	35	3300		1.4					8306	
	35	3300		1.4					8306	
	36	3600		0.4					8543	
	37	3850		0.6					8781	
	34	3050		2.4					8069	
	~~44~~	~~6100~~		7.6						
	37	3850		0.6					8781	
	38	4200		1.6					9018	
	38	4200		1.6					9018	
	38	4200		1.6					9018	
B13-B14	~~33~~	~~2800~~	36.6	3.6	Not needed values all < 6		Yes	3675		8614
	34	3050		2.6					8069	
	37	3850		0.4					8781	
	37	3850		0.4					8781	
	35	3300		1.6					8306	
	36	3600		0.6					8543	
	37	3850		0.4					8781	
	36	3600		0.6					8543	
	38	4200		1.4					9018	
	~~39~~	~~4450~~		2.4						
	36	3600		0.6					8543	
	37	3850		0.4					8781	
B14-B15	38	4200	37.2	0.8	Not needed values all < 6		Yes	3978	9018	8833
	35	3300		2.2					8306	
	36	3600		1.2					8543	
	34	3050		3.2					8069	
	33	2800		4.2					7831	
	41	5100		3.8					9730	
	38	4200		0.8					9018	
	39	4450		1.8					9255	
	41	5100		3.8					9730	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
C12-C13	36	3600	36.2	0.2	Not needed values all < 6		Yes	3710	8543	8591
	41	5100		4.8					9730	
	32	2600		4.2					7594	
	33	2800		3.2					7831	
	39	4450		2.8					9255	
	32	2600		4.2					7594	
	36	3600		0.2					8543	
	38	4200		1.8					9018	
	34	3050		2.2					8069	
	41	5100		4.8					9730	
	~~30~~	~~2200~~		6.2						
	~~42~~	~~5450~~		5.8						
C13-C14	32	2600	35.5	3.5	Not needed Values all < 6		Yes	3480	7594	8425
	~~31~~	~~2400~~		4.5						
	35	3300		0.5					8306	
	36	3600		0.5					8543	
	38	4200		2.5					9018	
	36	3600		0.5					8543	
	36	3600		0.5					8543	
	~~41~~	~~5100~~		5.5						
	33	2800		2.5					7831	
	34	3050		1.5					8069	
	38	4200		2.5					9018	
	37	3850		1.5					8781	
C14-C15	34	3050	37.0	3.0	Not needed values all < 6		Yes	3906	8069	8781
	39	4450		2.0					9255	
	41	5100		4.0					9730	
	37	3850		0.0					8781	
	38	4200		1.0					9018	
	38	4200		1.0					9018	
	36	3600		1.0					8543	
	33	2800		4.0					7831	

Table C.3: Rebound hammer data from Bridge A4709 (Cont.)

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Discarded values	Meets Spec.	Average concrete strength (psi)	Calibrated strength values (psi)	Calibrated concrete average strength (psi)
D12-D13	36	3600	39.0	3.0	Not needed values all < 6		Yes	4500	8543	9255
	42	5450		3.0					9967	
	38	4200		1.0					9018	
	~~34~~	~~3050~~		5.0						
	40	4750		1.0					9493	
	42	5450		3.0					9967	
	35	3300		4.0					8306	
	38	4200		1.0					9018	
	~~42~~	~~5450~~		3.0						
	38	4200		1.0					9018	
	40	4750		1.0					9493	
	41	5100		2.0					9730	
D13-D14	~~32~~	~~2600~~	38.8	6.8	Not needed values all < 6		Yes	4415		9208
	34	3050		4.8					8069	
	38	4200		0.8					9018	
	~~42~~	~~5450~~		3.2						
	39	4450		0.2					9255	
	40	4750		1.2					9493	
	38	4200		0.8					9018	
	40	4750		1.2					9493	
	41	5100		2.2					9730	
	40	4750		1.2					9493	
	39	4450		0.2					9255	
	39	4450		0.2					9255	
D14-D15	42	5450	37.4	4.6	Not needed values all < 6		Yes	4031	9967	8870
	35	3300		2.4					8306	
	41	5100		3.6					9730	
	38	4200		0.6					9018	
	32	2600		5.4					7594	
	39	4450		1.6					9255	
	37	3850		0.4					8781	
	35	3300		2.4					8306	

Table C.4: Rebound hammer data from calibration panel

Panel number	Tested rebound value	Corresponding concrete strength from manufacturer's curve(psi)	Rebound (AVG 1)	Discarded values	Rebound (AVG 2)	Meets Spec.	Average concrete strength (psi)	Actual concrete strength as tested by cylinders (psi)	Calibrated strength values (psi)
Calibration Panel (04/30/10)	24	3000	26.8	2.8	Not needed values all < 6	Yes	3625	6360	5696
	25	3300		1.8					5933
	29	4150		2.2					6882
	26	3500		0.8					6170
	27	3700		0.2					6407
	28	3800		1.2					6645
	26	3500		0.8					6170
	28	3800		1.2					6645
	27	3700		0.2					6407
	28	3800		1.2					6645

Note 1: Rebound hammer data was obtained on a test panel built in a precast plant on March 12, 2010. Cylinders casted using the same concrete were broken on the same day as the rebound hammer data was gathered. The average actual concrete strength of the cylinders is listed in Table C.4. The rebound hammer data was then calibrated assuming a linear relationship between rebound numbers and concrete strengths. Data in Table C.3 was then calibrated by multiplying the Tested rebound value by 237.31 psi, the calibration value obtained by taking the Actual concrete strength as tested by cylinders (psi))/Rebound (AVG 1) (from test panel).

Core C-1: 4.5” long (broken)

Core C-2: 5.5” long (smooth)

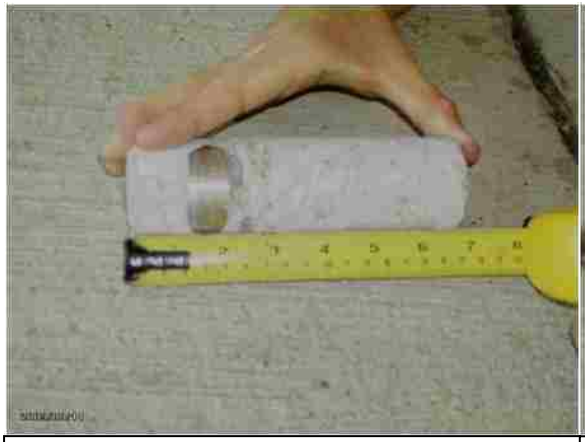
Core C-3: 6.125” long (smooth)

Core C-4: 6.125” long (smooth)

Core C-5: 6.5” long (broken)

Core C-6: 6.625” long (broken)

Figure C.3: Photos of cores including lengths and bottom type from Bridge A4709



Core C-7: 6.5” long (smooth)

Core C-8: 6.375” long (smooth)

Core C-9: 7” long (broken)

Core C-10: 7.125” long (broken)

Figure C.3: Photos of cores including lengths and bottom type from Bridge A4709 (Cont.)

APPENDIX D

GPR DATA OBTAINED ON BRIDGE A4709

D. GPR DATA OBTAINED ON BRIDGE A4709

1. INTRODUCTION

This appendix contains additional data obtained on Bridge A4709 using GPR (Section 3.2.4.2). The attached CD includes all of the GPR data acquired on Bridge A4709 that were used to construct figures in Sections 3.2.4.2 and 4.1.1-4.3.2. The files include raw GPR data in the form of Radan file formats as well as results from Radan's "reinforcement picking" Adobe file format. Once the "reinforcement picking" tool was utilized, each reinforcement location was manually reviewed. If any reinforcement location was thought to be inaccurate, it was manually altered per the reviewer's discretion.

The files labeled "GPR Longitudinal" corresponds to the data collected in the longitudinal scan on August 10, 2009, the files labeled "GPR Transverse" corresponds to the data collected in the transverse scan on April 1, 2010 and the files labeled "GPR Panel" corresponds to the data collected from the selected panels on August 10, 2009. The Adobe files "GPR Longitudinal" and "GPR Transverse" consist of six different columns and Adobe file "GPR Panel" consists of seven different columns. The meaning of each column is listed below.

A. GPR Longitudinal
    1. The first column consists of the file number for each scan line, which corresponds to the file numbers shown in Table D.1 and the scan lines shown in Figure 3.11.
    2. The second column, Distance X (ft.), lists the distance of the scan in the x-direction (from project east to project west) as shown in Figure 3.11.
    3. The third column, Depth (in.), is the GPR-calculated depth to the centroid of the first transverse layer of reinforcement.
    4. The fourth column, Distance Y (ft.), lists the location of the scan line along the y-axis (from project south to project north) as shown in Figure 3.11.
    5. The fifth column, Time (ns), lists the travel time of the reinforcement reflection signal.
    6. The sixth column, Amplitude (dB), lists the amplitude of the reinforcement reflection signal.

B. GPR Transverse

1. The first column consists of the file number for each scan line, which corresponds to the file numbers shown in Table D.2 and the scan lines shown in Figure 3.12.
2. The second column, Distance X (ft.), lists the distance of the scan in the x-direction (from project south to project north) as shown in Figure 3.12.
3. The third column, Depth (in.), is the GPR calculated depth to the centroid of the first longitudinal layer of reinforcement.
4. The fourth column, Distance Y (ft.), lists the location of the scan line along the y-axis (from project east to project west) as shown in Figure 3.12.
5. The fifth column, Time (ns), lists the travel time of the reinforcement reflection signal.
6. The sixth column, Amplitude (dB), lists the amplitude of the reinforcement reflection signal.

C. GPR Panel

1. The first column lists the Panel Number the data acquisition took place. These numbers are labeled with respect to the panel joint numbers as shown in Figure D.1. A panel number consists of the letter of the panel line it is located (see Figure 3.6) and the numbers of the joints. In addition, the panel numbers also indicate the direction of the scan, project east to west or project west to east, by the order the joints are listed. For instance, a scan conducted in the west to east direction on the panel encompassed by a dotted rectangle in Figure D.1 would have the panel number B12-11. In contrast, if the scan was conducted in the east to west direction the panel number would panel number for would be B11-12.
2. The second column consists of the file number for each scan line.
3. The third column, Distance X (ft), lists the distance of the scan in the x-direction (project east and west) as shown in Figure D.1.
4. The fourth column, Depth (in), is the GPR calculated depth to the centroid of the prestressing tendons.
5. The fifth column, Distance Y (ft), corresponds to the scan line location on each panel as shown in Figure D.1.
6. The sixth column, Time (ns), lists the travel time of the reinforcement reflection signal.
7. The seventh column, Amplitude (dB), lists the amplitude of the reinforcement reflection signal.

2. CONTENTS

CD

Bridge A4709 GPR Data (Attached)

Page

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Table D.1: Files obtained during longitudinal GPR data acquisition on the top surface of bridge deck

Scan Line*	File #
ISE	53
HSE	54
GSE	55
FSE	56
ESE	57
DSE	58
CSE	59
BSE	60
ASE	61
CENTERLINE	62
INW	63
HNW	64
GNW	65
FNW	66
ENW	67
DNW	68
CNW	69
BNW	70
ANW	71

*Scan lines are shown in Figure 3.11. The first letter in the scan line label represents the location A through I with respect to the centerline of the bridge as shown in Figure 3.11. The second and third letters indicate the traffic lane direction the scan line is located.

Table D.2: Files obtained during transverse GPR data acquisition on the top surface of the bridge deck

Scan Line*	File #
1	2
2	3
3	4
4	5
5	6
6	7
7	8
8	9
9	10
10	11
11	12
12	13
13	14
14	15
15	16
16	17
17	18
18	19
19	20
20	21
21	22
22	23
23	24
24	25
25	26
26	27
27	28
28	29
29	30
30	31
31	32
32	33
33	34
34	35
35	36
36	37
37	38
38	39

Table D.2: Files obtained during transverse GPR data acquisition on the top surface of the bridge deck (Cont.)

Scan Line*	File #
39	40
40	41
41	42
42	43
43	44
44	45
45	46
46	47
47	48
48	49
49	50
50	51
51	52
52	53
53	54
54	55
55	56
56	57
57	58
58	59
59	60
60	61
61	62
62	63
63	64
64	65
65	66
66	67
67	68
68	69
69	70
70	71
71	72
72	73
73	74
74	75
75	76
76	77

Table D.2: Files obtained during transverse GPR data acquisition on the top surface of the bridge deck (Cont.)

Scan Line*	File #
77	78
78	79
79	80
80	81
81	82
82	83
83	84
84	85
85	86
86	87
87	88
88	89
89	90
90	91
91	92
92	93
93	94
94	95
95	96
96	97
97	98
98	99
99	100
100	101
101	102
102	103
103	104
104	105
105	106
106	107
107	108
108	109
109	110
110	111
111	112
112	113
113	114
114	115

Table D.2: Files obtained during transverse GPR data acquisition on the top surface of the bridge deck (Cont.)

Scan Line*	File #
115	116
116	117
117	118
118	119
119	120
120	121
121	122
122	123
123	124

*The scan line numbers correspond to the labels for the lines shown in Figure 3.12.

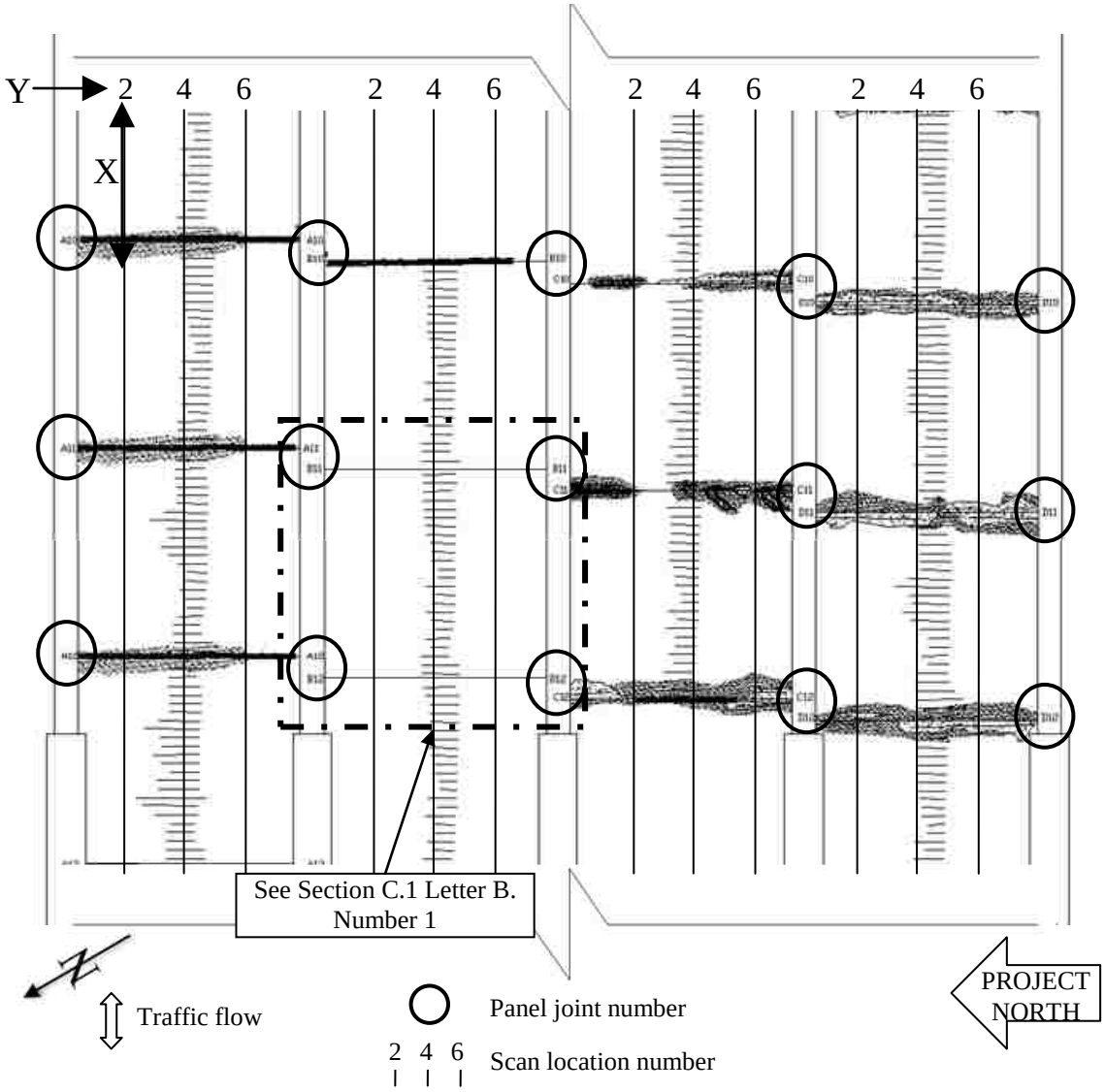

Figure D.1: Labeling rubric for panel GPR data acquired on the bottom surface of Bridge A4709

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VITA

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Immediately following her undergraduate studies, Kandi continued her education at Missouri University of Science and Technology attaining her Master's of Science in Civil Engineering with an emphasis in structural engineering in August 2010.

File Number	Distance X (ft)	Depth (in)	Distance Y (ft)	Time (ns)	Amplitude (dB)
53	0.33	4.41	0	2.438	5010
53	0.85	4.49	0	2.484	4801
53	1.31	4.33	0	2.391	6659
53	1.84	4.13	0	2.297	7415
53	2.30	4.09	0	2.273	7785
53	2.79	4.13	0	2.297	7252
53	3.38	4.13	0	2.297	7484
53	3.87	4.02	0	2.227	7355
53	4.33	4.09	0	2.273	7476
53	4.86	4.13	0	2.297	6673
53	5.31	4.13	0	2.297	6603
53	5.91	4.17	0	2.32	7098
53	6.36	4.09	0	2.273	6795
53	6.89	4.09	0	2.273	6471
53	7.41	4.06	0	2.25	7070
53	7.91	4.09	0	2.273	6524
53	8.40	4.13	0	2.297	5604
53	8.83	4.37	0	2.414	4571
53	9.42	4.06	0	2.25	6418
53	9.91	4.13	0	2.297	6642
53	10.40	4.06	0	2.25	6918
53	11.45	4.02	0	2.227	6576
53	11.94	4.06	0	2.25	6416
53	12.83	4.02	0	2.227	7360
53	13.35	4.09	0	2.273	6926
53	13.88	4.09	0	2.273	6685
53	14.37	4.06	0	2.25	6173
53	14.90	4.13	0	2.297	6610
53	15.35	4.06	0	2.25	7354
53	15.91	4.06	0	2.25	6939
53	16.40	4.17	0	2.32	5918
53	16.93	4.29	0	2.367	5538
53	17.39	4.09	0	2.273	6746
53	17.85	4.06	0	2.25	7610
53	18.41	4.06	0	2.25	7625
53	18.90	3.98	0	2.203	7896
53	19.42	3.90	0	2.18	8105
53	19.95	4.09	0	2.273	7361
53	20.47	3.90	0	2.18	8083
53	20.90	4.02	0	2.227	8358
53	21.39	3.90	0	2.18	8693
53	21.88	3.90	0	2.18	8724
53	22.38	3.78	0	2.109	8394
53	22.90	3.82	0	2.133	8006
53	23.46	3.90	0	2.18	7175
53	23.98	3.86	0	2.156	7372

53	24.51	4.02	0	2.227	6473
53	25.03	4.06	0	2.25	6064
53	25.49	3.82	0	2.133	7495
53	26.02	3.82	0	2.133	7444
53	26.94	3.86	0	2.156	7513
53	27.46	3.82	0	2.133	7594
53	27.92	3.78	0	2.109	7221
53	28.54	3.86	0	2.156	7692
53	29.10	3.78	0	2.109	7310
53	29.56	3.78	0	2.109	7723
53	30.09	3.74	0	2.086	7489
53	30.58	3.78	0	2.109	7496
53	31.07	3.82	0	2.133	7696
53	31.56	3.78	0	2.109	7773
53	31.99	3.82	0	2.133	7445
53	32.55	3.90	0	2.18	6439
53	33.07	3.86	0	2.156	5891
53	33.60	3.74	0	2.086	7192
53	34.02	3.78	0	2.109	7668
53	34.55	3.74	0	2.086	8134
53	35.04	3.70	0	2.063	7875
53	35.50	3.62	0	2.039	8006
53	35.93	3.70	0	2.063	7888
53	36.52	3.70	0	2.063	7781
53	37.04	3.70	0	2.063	7608
53	37.63	3.62	0	2.039	7945
53	38.06	3.74	0	2.086	7662
53	38.58	3.78	0	2.109	7369
53	39.07	3.86	0	2.156	7818
53	39.70	3.78	0	2.109	7529
53	40.16	3.74	0	2.086	7203
53	40.58	3.90	0	2.18	6590
53	41.21	3.82	0	2.133	6721
53	41.60	3.78	0	2.109	6685
53	42.06	3.78	0	2.109	6615
53	42.52	3.74	0	2.086	6986
53	43.11	3.62	0	2.039	6575
53	43.54	3.62	0	2.039	6886
53	44.03	3.70	0	2.063	6949
53	44.52	3.62	0	2.039	7227
53	45.14	3.58	0	2.016	7694
53	45.64	3.58	0	2.016	7485
53	46.13	3.58	0	2.016	6774
53	46.56	3.74	0	2.086	6794
53	47.15	3.58	0	2.016	7153
53	47.57	3.58	0	2.016	7419
53	48.16	3.70	0	2.063	6533

53	48.62	3.82	0	2.133	5667
53	49.15	3.86	0	2.156	5603
53	49.61	3.74	0	2.086	7121
53	50.10	3.70	0	2.063	7892
53	50.62	3.62	0	2.039	7317
53	51.15	3.62	0	2.039	6846
53	51.61	3.74	0	2.086	7367
53	52.20	3.74	0	2.086	7446
53	52.66	3.70	0	2.063	7611
53	53.12	3.74	0	2.086	7441
53	53.67	3.86	0	2.156	6338
53	54.20	3.74	0	2.086	8057
53	54.66	3.74	0	2.086	7694
53	55.15	3.74	0	2.086	7941
53	55.71	3.74	0	2.086	7885
53	56.17	3.78	0	2.109	7660
53	56.63	3.98	0	2.203	6582
53	57.22	3.98	0	2.203	6803
53	57.68	3.82	0	2.133	8318
53	58.27	3.78	0	2.109	7764
53	58.73	3.78	0	2.109	8418
53	59.15	3.78	0	2.109	7854
53	59.61	3.90	0	2.18	6543
53	60.20	3.62	0	2.039	7867
53	60.73	3.54	0	1.992	6922
53	61.29	3.54	0	1.992	8112
53	61.75	3.54	0	1.992	8485
53	62.30	3.54	0	1.992	9087
53	62.80	3.54	0	1.992	8943
53	63.25	3.54	0	1.992	7614
53	63.71	3.58	0	2.016	7209
53	64.11	3.70	0	2.063	7082
53	64.70	3.86	0	2.156	5978
53	65.26	3.90	0	2.18	5576
53	65.68	3.78	0	2.109	6299
53	66.21	3.78	0	2.109	6758
53	66.80	3.78	0	2.109	6836
53	67.26	3.74	0	2.086	7023
53	67.75	3.78	0	2.109	7440
53	68.31	3.74	0	2.086	7457
53	68.83	3.70	0	2.063	7475
53	69.29	3.82	0	2.133	7193
53	69.78	3.90	0	2.18	7100
53	70.18	3.86	0	2.156	6785
53	70.64	3.86	0	2.156	6672
53	71.23	3.82	0	2.133	7008
53	71.75	3.74	0	2.086	7092

53	72.21	3.74	0	2.086	7021
53	72.74	3.98	0	2.203	5757
53	73.23	4.09	0	2.273	5771
53	73.72	3.86	0	2.156	6938
53	74.31	3.78	0	2.109	7614
53	74.93	3.78	0	2.109	7574
53	75.39	3.70	0	2.063	7353
53	75.82	3.62	0	2.039	7354
53	76.28	3.62	0	2.039	7886
53	76.74	3.62	0	2.039	7440
53	77.23	3.62	0	2.039	7409
53	77.79	3.62	0	2.039	7131
53	78.28	3.74	0	2.086	6992
53	78.74	3.90	0	2.18	6351
53	79.30	3.74	0	2.086	6889
53	79.79	3.70	0	2.063	7320
53	80.22	3.74	0	2.086	7005
53	80.77	3.82	0	2.133	6175
53	81.36	3.78	0	2.109	6346
53	81.82	3.58	0	2.016	7640
53	82.28	3.46	0	1.945	7383
53	82.81	3.46	0	1.945	7305
53	83.27	3.35	0	1.898	7942
53	83.86	3.46	0	1.945	7085
53	84.35	3.54	0	1.992	6461
53	84.88	3.58	0	2.016	5500
53	85.37	3.54	0	1.992	4286
53	85.86	3.70	0	2.063	4576
53	86.35	3.58	0	2.016	4755
53	86.91	3.70	0	2.063	5278
53	87.37	3.98	0	2.203	6856
53	87.83	3.62	0	2.039	5555
53	88.35	3.78	0	2.109	5346
53	88.78	3.82	0	2.133	5068
53	89.30	3.78	0	2.109	5858
53	89.80	3.78	0	2.109	5452
53	90.35	3.82	0	2.133	4499
53	90.81	3.82	0	2.133	5420
53	91.34	3.74	0	2.086	4929
53	91.86	3.86	0	2.156	6436
53	92.32	3.82	0	2.133	4690
53	92.78	3.86	0	2.156	5281
53	93.27	3.82	0	2.133	5224
53	93.77	3.86	0	2.156	5318
53	94.32	3.82	0	2.133	5553
53	94.88	3.82	0	2.133	4587
53	95.31	4.02	0	2.227	3739

53	95.83	3.86	0	2.156	5704
53	96.33	3.82	0	2.133	4014
53	96.88	4.06	0	2.25	4636
53	97.38	3.78	0	2.109	5656
53	97.87	3.78	0	2.109	4575
53	98.36	3.78	0	2.109	4943
53	98.95	3.74	0	2.086	4793
53	99.38	3.74	0	2.086	4434
53	99.90	3.86	0	2.156	5028
53	100.49	3.78	0	2.109	3829
53	101.15	4.21	0	2.344	10612
53	102.17	4.29	0	2.367	11669
53	102.66	4.41	0	2.438	11627
53	103.18	4.57	0	2.508	11190
53	103.44	3.62	0	2.039	4440
53	103.90	3.54	0	1.992	5103
53	104.46	3.46	0	1.945	5049
53	104.99	3.35	0	1.898	4609
53	105.45	3.50	0	1.969	4065
53	105.97	3.78	0	2.109	3481
53	106.43	3.54	0	1.992	3731
53	107.02	3.58	0	2.016	2986
53	107.41	3.58	0	2.016	2846
53	107.97	3.70	0	2.063	2905
53	108.50	3.74	0	2.086	3147
53	108.99	3.90	0	2.18	3231
53	109.42	3.78	0	2.109	4225
53	109.97	3.82	0	2.133	4217
53	110.50	3.82	0	2.133	3534
53	110.96	3.82	0	2.133	3448
53	111.52	4.13	0	2.297	2823
53	111.94	3.90	0	2.18	3177
53	112.53	3.98	0	2.203	3212
53	112.99	3.86	0	2.156	4168
53	113.52	3.98	0	2.203	4972
53	113.98	3.98	0	2.203	4365
53	114.53	4.02	0	2.227	4934
53	114.96	4.02	0	2.227	4986
53	115.58	4.02	0	2.227	4824
53	116.01	4.02	0	2.227	5262
53	116.54	4.02	0	2.227	5677
53	116.99	4.06	0	2.25	4808
53	117.52	3.98	0	2.203	4609
53	117.98	3.90	0	2.18	4683
53	118.47	4.02	0	2.227	3840
53	119.06	4.13	0	2.297	4916
53	119.52	4.02	0	2.227	4227

53	119.95	4.02	0	2.227	5647
53	120.41	3.98	0	2.203	4152
53	121.00	3.90	0	2.18	3677
53	121.49	4.02	0	2.227	3343
53	122.01	4.09	0	2.273	2486
53	122.54	3.78	0	2.109	3565
53	123.13	3.58	0	2.016	2964
53	123.65	3.58	0	2.016	2178
53	123.92	4.45	0	2.461	7266
53	124.31	4.61	0	2.531	6398
53	124.80	4.57	0	2.508	10023
53	125.30	4.49	0	2.484	9071
53	125.82	4.65	0	2.555	11266
53	126.35	4.57	0	2.508	9349
53	126.84	4.61	0	2.531	11750
53	127.36	4.72	0	2.602	9018
53	127.85	4.72	0	2.602	7253
53	128.35	4.69	0	2.578	11716
53	128.87	4.57	0	2.508	10960
53	129.40	4.57	0	2.508	7675
53	129.89	4.80	0	2.648	11559
53	130.45	4.69	0	2.578	8707
53	130.91	4.45	0	2.461	5111
53	131.33	4.49	0	2.484	7272
53	131.82	4.76	0	2.625	10076
53	132.38	4.92	0	2.695	12585
53	132.87	4.65	0	2.555	9249
53	133.30	4.61	0	2.531	7895
53	133.79	4.88	0	2.672	12950
53	134.38	4.80	0	2.648	13036
53	134.91	4.72	0	2.602	9770
53	135.40	4.80	0	2.648	8376
53	135.89	5.04	0	2.766	9626
53	136.42	4.72	0	2.602	10039
53	136.71	4.06	0	2.25	3155
53	137.14	4.06	0	2.25	6372
53	137.66	4.06	0	2.25	6260
53	138.16	4.09	0	2.273	5512
53	138.62	4.06	0	2.25	6004
53	139.11	4.17	0	2.32	5618
53	139.60	4.13	0	2.297	5937
53	140.09	4.09	0	2.273	4382
53	140.62	4.06	0	2.25	5450
53	141.14	4.09	0	2.273	5531
53	141.70	4.21	0	2.344	4087
53	142.19	4.13	0	2.297	4674
53	142.75	4.17	0	2.32	3521

53	143.21	4.29	0	2.367	4155
53	143.64	4.33	0	2.391	3952
53	144.23	4.17	0	2.32	3647
53	144.75	4.06	0	2.25	3285
53	145.24	3.90	0	2.18	3102
53	145.73	3.90	0	2.18	3102
53	146.23	3.86	0	2.156	2757
53	146.75	3.74	0	2.086	3373
53	147.18	3.70	0	2.063	3365
53	147.67	3.58	0	2.016	4159
53	148.23	3.74	0	2.086	4085
53	148.79	3.54	0	1.992	5351
53	149.25	3.50	0	1.969	6442
53	149.70	3.58	0	2.016	6534
53	150.26	3.54	0	1.992	6582
53	150.66	3.58	0	2.016	5884
53	151.18	3.58	0	2.016	4704
53	151.71	3.78	0	2.109	4440
53	152.23	3.54	0	1.992	5935
53	152.72	3.50	0	1.969	6290
53	153.22	3.43	0	1.922	6596
53	153.77	3.50	0	1.969	6650
53	154.23	3.43	0	1.922	4989
53	154.76	3.46	0	1.945	5218
53	155.28	3.50	0	1.969	2914
53	155.74	3.43	0	1.922	2740
53	156.20	3.31	0	1.875	5069
53	156.79	3.43	0	1.922	4048
53	157.28	3.50	0	1.969	4232
53	157.78	3.74	0	2.086	3740
53	158.33	3.98	0	2.203	3910
53	158.86	3.74	0	2.086	3712
53	159.35	3.58	0	2.016	4412
53	159.81	3.58	0	2.016	6226
53	160.33	3.58	0	2.016	5238
53	160.83	3.58	0	2.016	4857
53	161.35	3.74	0	2.086	4546
53	161.88	3.70	0	2.063	5522
53	162.34	3.58	0	2.016	6588
53	162.80	3.62	0	2.039	5973
53	163.29	3.70	0	2.063	5124
53	163.75	3.74	0	2.086	6267
53	164.27	3.74	0	2.086	6405
53	164.73	3.78	0	2.109	5160
53	165.19	3.86	0	2.156	4646
53	165.81	4.13	0	2.297	3285
53	166.27	4.09	0	2.273	3689

53	166.77	3.74	0	2.086	5174
53	167.26	3.70	0	2.063	5247
53	167.81	3.78	0	2.109	7487
53	168.34	3.74	0	2.086	6981
53	168.90	3.70	0	2.063	6880
53	169.39	3.74	0	2.086	5374
53	169.88	3.78	0	2.109	4386
53	170.31	3.78	0	2.109	6611
53	170.83	3.82	0	2.133	8149
53	171.33	3.86	0	2.156	8058
53	171.85	4.02	0	2.227	7210
53	172.44	3.86	0	2.156	7563
53	172.83	3.86	0	2.156	7190
53	173.36	3.90	0	2.18	6958
53	173.85	4.09	0	2.273	6038
53	174.41	4.17	0	2.32	5691
53	174.93	3.98	0	2.203	7076
53	175.39	3.98	0	2.203	7287
53	175.79	3.98	0	2.203	7174
53	176.38	3.90	0	2.18	7271
53	176.80	3.98	0	2.203	7051
53	177.36	4.02	0	2.227	6814
53	177.85	3.98	0	2.203	6536
53	178.28	3.86	0	2.156	6391
53	178.84	3.86	0	2.156	6401
53	179.40	3.90	0	2.18	7522
53	179.82	4.06	0	2.25	7318
53	180.41	4.06	0	2.25	6152
53	180.94	4.13	0	2.297	6811
53	181.36	4.09	0	2.273	6271
53	181.86	4.33	0	2.391	5640
53	182.38	4.45	0	2.461	4145
53	182.91	4.13	0	2.297	6158
53	183.40	4.06	0	2.25	6444
53	183.92	4.06	0	2.25	7350
53	184.42	3.98	0	2.203	6970
53	184.91	4.06	0	2.25	7092
53	185.40	4.06	0	2.25	7247
53	185.93	4.02	0	2.227	6300
53	186.45	4.09	0	2.273	6660
53	186.98	4.02	0	2.227	6589
53	187.50	4.29	0	2.367	5925
53	187.89	4.09	0	2.273	5791
53	188.35	4.09	0	2.273	5777
53	188.85	4.13	0	2.297	6442
53	189.34	4.17	0	2.32	5591
53	189.93	4.33	0	2.391	5081

53	190.42	4.57	0	2.508	4751
53	190.91	4.13	0	2.297	5389
53	191.40	4.06	0	2.25	6426
53	191.93	4.09	0	2.273	6652
53	192.42	4.09	0	2.273	6416
53	192.88	3.98	0	2.203	6600
53	193.41	4.02	0	2.227	6521
53	193.96	3.98	0	2.203	7488
53	194.42	3.98	0	2.203	7242
53	194.95	3.98	0	2.203	7301
53	195.47	3.90	0	2.18	7356
53	195.96	3.90	0	2.18	7132
53	196.52	3.98	0	2.203	7454
53	196.98	4.06	0	2.25	7171
53	197.47	4.13	0	2.297	6577
53	197.90	4.29	0	2.367	5197
53	198.49	4.45	0	2.461	5135
53	199.02	4.06	0	2.25	6627
53	199.51	4.13	0	2.297	6998
53	200.03	3.98	0	2.203	7588
53	200.43	4.02	0	2.227	6961
53	200.98	4.13	0	2.297	7308
53	201.51	3.98	0	2.203	7459
53	202.00	3.98	0	2.203	7557
53	202.53	4.02	0	2.227	7802
53	202.99	4.02	0	2.227	7564
53	203.51	4.06	0	2.25	8294
53	204.04	4.13	0	2.297	7724
53	204.56	4.06	0	2.25	8216
53	205.09	4.06	0	2.25	7890
53	205.51	4.13	0	2.297	7930
53	206.04	4.33	0	2.391	5977
53	206.50	4.45	0	2.461	4958
53	206.99	4.09	0	2.273	6361
53	207.48	4.06	0	2.25	6723
53	208.01	4.02	0	2.227	7551
53	208.56	4.06	0	2.25	7333
53	209.06	3.98	0	2.203	7055
53	209.55	3.98	0	2.203	7497
53	210.14	3.98	0	2.203	7608
53	210.60	3.90	0	2.18	7035
53	211.12	4.02	0	2.227	7461
53	211.58	4.09	0	2.273	5949
53	212.14	4.09	0	2.273	6938
53	212.63	4.09	0	2.273	6538
53	213.09	4.13	0	2.297	6479
53	213.62	4.29	0	2.367	6168

53	214.11	4.57	0	2.508	4781
53	214.63	4.45	0	2.461	4585
53	215.12	4.29	0	2.367	6072
53	215.58	4.17	0	2.32	6968
53	216.08	4.13	0	2.297	6080
53	216.57	4.13	0	2.297	5860
53	217.09	4.06	0	2.25	6632
53	217.59	4.09	0	2.273	6474
53	218.14	4.13	0	2.297	7024
53	218.60	4.17	0	2.32	6057
53	219.13	4.13	0	2.297	5715
53	219.65	4.09	0	2.273	6494
53	220.14	4.13	0	2.297	6367
53	220.64	4.13	0	2.297	6135
53	221.19	4.09	0	2.273	6032
53	221.69	4.29	0	2.367	5422
53	222.15	4.41	0	2.438	4528
53	222.74	4.61	0	2.531	4605
53	223.16	4.13	0	2.297	6247
53	223.59	4.13	0	2.297	6486
53	224.18	4.09	0	2.273	6795
53	224.70	4.06	0	2.25	6422
53	225.16	4.17	0	2.32	6354
53	225.69	4.13	0	2.297	7277
53	226.15	4.09	0	2.273	7067
53	226.57	4.13	0	2.297	6622
53	227.10	4.13	0	2.297	6832
53	227.66	4.13	0	2.297	6740
53	228.12	4.06	0	2.25	6604
53	228.67	4.17	0	2.32	5910
53	229.20	4.02	0	2.227	6011
53	229.69	4.13	0	2.297	5711
53	230.25	4.29	0	2.367	4513
53	230.71	4.33	0	2.391	4317
53	231.27	4.02	0	2.227	5380
53	231.73	3.86	0	2.156	5898
53	232.19	3.78	0	2.109	5736
53	232.64	4.02	0	2.227	6445
53	233.30	4.02	0	2.227	6875
54	0.33	4.61	2	2.531	4870
54	0.85	4.76	2	2.625	4831
54	1.38	4.33	2	2.391	6217
54	1.90	4.29	2	2.367	6829
54	2.40	4.33	2	2.391	6253
54	2.82	4.21	2	2.344	6205
54	3.41	4.17	2	2.32	6625
54	3.84	4.33	2	2.391	6044

54	4.36	4.21	2	2.344	4990
54	4.89	4.17	2	2.32	5447
54	5.35	4.06	2	2.25	5077
54	5.91	4.06	2	2.25	4494
54	6.36	4.06	2	2.25	3158
54	6.92	4.02	2	2.227	3937
54	7.41	4.09	2	2.273	3288
54	7.94	4.02	2	2.227	2813
54	8.63	5.00	2	2.742	6798
54	9.38	4.21	2	2.344	1800
54	9.91	4.09	2	2.273	2294
54	10.37	4.13	2	2.297	2338
54	10.86	4.37	2	2.414	2149
54	11.35	3.98	2	2.203	3178
54	11.91	3.86	2	2.156	3117
54	12.40	4.09	2	2.273	2665
54	12.80	4.02	2	2.227	4063
54	13.35	4.06	2	2.25	3026
54	13.81	4.02	2	2.227	2176
54	14.34	3.90	2	2.18	2474
54	14.90	4.02	2	2.227	3648
54	15.32	4.06	2	2.25	4025
54	15.85	3.98	2	2.203	2488
54	16.44	4.29	2	2.367	1701
54	16.96	4.09	2	2.273	1365
54	17.45	3.90	2	2.18	3580
54	17.88	3.98	2	2.203	2876
54	18.44	3.90	2	2.18	3469
54	18.93	3.86	2	2.156	3497
54	19.46	3.82	2	2.133	3242
54	20.01	3.78	2	2.109	3602
54	20.47	3.74	2	2.086	5070
54	20.87	3.74	2	2.086	5900
54	21.36	3.78	2	2.109	6480
54	21.85	3.74	2	2.086	6618
54	22.38	3.62	2	2.039	7218
54	22.87	3.74	2	2.086	7514
54	23.43	3.82	2	2.133	7029
54	23.92	3.86	2	2.156	6614
54	24.48	3.98	2	2.203	6145
54	25.00	3.98	2	2.203	5557
54	25.49	3.78	2	2.109	7336
54	26.02	3.74	2	2.086	7633
54	26.51	3.82	2	2.133	7590
54	26.94	3.74	2	2.086	7624
54	27.43	3.78	2	2.109	6662
54	27.85	3.74	2	2.086	6748

54	28.54	3.74	2	2.086	7180
54	29.10	3.78	2	2.109	6846
54	29.56	3.78	2	2.109	6098
54	30.02	3.78	2	2.109	6518
54	30.61	3.74	2	2.086	6660
54	31.10	3.78	2	2.109	6785
54	31.56	3.74	2	2.086	6556
54	32.02	3.82	2	2.133	6824
54	32.55	3.98	2	2.203	5551
54	33.10	3.86	2	2.156	4811
54	33.56	3.74	2	2.086	6272
54	34.02	3.62	2	2.039	6820
54	34.58	3.58	2	2.016	7183
54	35.07	3.54	2	1.992	7122
54	35.47	3.58	2	2.016	7229
54	35.96	3.54	2	1.992	6888
54	36.52	3.62	2	2.039	7136
54	37.04	3.58	2	2.016	7091
54	37.60	3.62	2	2.039	7242
54	38.06	3.62	2	2.039	7171
54	38.58	3.62	2	2.039	7005
54	39.11	3.58	2	2.016	7785
54	39.70	3.54	2	1.992	6594
54	40.12	3.62	2	2.039	6508
54	40.58	3.78	2	2.109	5844
54	41.17	3.78	2	2.109	5601
54	41.54	3.70	2	2.063	5935
54	42.06	3.62	2	2.039	6524
54	42.45	3.70	2	2.063	6720
54	43.04	3.70	2	2.063	6703
54	43.50	3.62	2	2.039	6864
54	44.00	3.70	2	2.063	6463
54	44.49	3.70	2	2.063	6354
54	45.11	3.70	2	2.063	6082
54	45.67	3.62	2	2.039	6310
54	46.10	3.54	2	1.992	6666
54	46.52	3.54	2	1.992	6466
54	47.08	3.54	2	1.992	6861
54	47.57	3.62	2	2.039	6766
54	48.16	3.58	2	2.016	6692
54	48.56	3.78	2	2.109	5978
54	49.15	3.82	2	2.133	5236
54	49.61	3.62	2	2.039	6111
54	50.07	3.54	2	1.992	6861
54	50.66	3.62	2	2.039	6928
54	51.18	3.62	2	2.039	6927
54	51.64	3.54	2	1.992	6405

54	52.20	3.70	2	2.063	6356
54	52.66	3.62	2	2.039	7158
54	53.15	3.62	2	2.039	6998
54	53.67	3.62	2	2.039	7070
54	54.20	3.70	2	2.063	7063
54	54.69	3.70	2	2.063	6965
54	55.22	3.70	2	2.063	6947
54	55.74	3.74	2	2.086	6692
54	56.17	3.82	2	2.133	6043
54	56.66	4.02	2	2.227	4939
54	57.25	3.98	2	2.203	5068
54	57.68	3.82	2	2.133	6216
54	58.23	3.78	2	2.109	6590
54	58.73	3.82	2	2.133	6653
54	59.19	3.78	2	2.109	6943
54	59.61	3.74	2	2.086	6317
54	60.17	3.70	2	2.063	6359
54	60.73	3.58	2	2.016	6314
54	61.29	3.54	2	1.992	6478
54	61.71	3.54	2	1.992	6998
54	62.27	3.50	2	1.969	6781
54	62.80	3.50	2	1.969	6401
54	63.29	3.50	2	1.969	6921
54	63.71	3.50	2	1.969	6295
54	64.11	3.54	2	1.992	6448
54	64.67	3.82	2	2.133	4659
54	65.26	3.78	2	2.109	4928
54	65.65	3.62	2	2.039	6386
54	66.14	3.62	2	2.039	6412
54	66.77	3.54	2	1.992	6104
54	67.22	3.58	2	2.016	6471
54	67.65	3.54	2	1.992	6853
54	68.27	3.58	2	2.016	6230
54	68.83	3.54	2	1.992	6827
54	69.26	3.54	2	1.992	6490
54	69.75	3.58	2	2.016	6580
54	70.18	3.62	2	2.039	6728
54	70.64	3.62	2	2.039	6629
54	71.26	3.70	2	2.063	5564
54	71.78	3.70	2	2.063	6127
54	72.15	3.74	2	2.086	6535
54	72.70	3.90	2	2.18	5429
54	73.20	4.06	2	2.25	4948
54	73.65	3.78	2	2.109	5963
54	74.31	3.70	2	2.063	6968
54	74.93	3.70	2	2.063	7157
54	75.39	3.62	2	2.039	7022

54	75.85	3.70	2	2.063	6865
54	76.25	3.70	2	2.063	6942
54	76.71	3.58	2	2.016	6270
54	76.74	3.58	2	2.016	6297
54	77.23	3.62	2	2.039	6500
54	77.79	3.62	2	2.039	6805
54	78.25	3.62	2	2.039	6866
54	78.71	3.58	2	2.016	6379
54	79.23	3.58	2	2.016	7003
54	79.76	3.58	2	2.016	6707
54	80.18	3.58	2	2.016	6661
54	80.74	3.70	2	2.063	5509
54	81.27	3.70	2	2.063	5528
54	81.79	3.46	2	1.945	6578
54	81.82	3.46	2	1.945	6440
54	82.28	3.43	2	1.922	6946
54	82.81	3.35	2	1.898	6684
54	83.20	3.27	2	1.852	6436
54	83.86	3.35	2	1.898	4604
54	84.38	3.46	2	1.945	3043
54	84.81	3.43	2	1.922	3738
54	85.27	3.46	2	1.945	3923
54	85.86	3.46	2	1.945	3761
54	86.32	3.35	2	1.898	3248
54	86.91	3.27	2	1.852	3282
54	87.30	3.46	2	1.945	2878
54	87.80	3.27	2	1.852	3491
54	88.35	3.35	2	1.898	2362
54	88.81	3.31	2	1.875	2771
54	89.30	3.19	2	1.805	3468
54	89.83	3.23	2	1.828	4567
54	90.39	3.19	2	1.805	4520
54	90.85	3.19	2	1.805	5601
54	91.34	3.19	2	1.805	5878
54	91.77	3.19	2	1.805	5178
54	92.36	3.11	2	1.781	5035
54	92.81	3.23	2	1.828	5524
54	93.21	3.19	2	1.805	5823
54	93.73	3.27	2	1.852	5084
54	94.32	3.27	2	1.852	6158
54	94.88	3.27	2	1.852	3819
54	95.31	3.50	2	1.969	3522
54	95.77	3.27	2	1.852	3670
54	96.29	3.35	2	1.898	4581
54	96.75	3.35	2	1.898	3758
54	97.28	3.31	2	1.875	4350
54	97.83	3.31	2	1.875	3325

54	98.29	3.50	2	1.969	2651
54	98.82	3.54	2	1.992	2868
54	99.34	3.54	2	1.992	3631
54	99.77	3.54	2	1.992	2796
54	100.49	3.62	2	2.039	2704
54	100.92	3.58	2	2.016	1590
54	101.31	3.70	2	2.063	2781
54	101.90	3.58	2	2.016	2496
54	102.33	3.54	2	1.992	2255
54	102.89	3.78	2	2.109	3174
54	103.38	3.86	2	2.156	2304
54	103.87	3.62	2	2.039	1976
54	104.46	3.54	2	1.992	1783
54	104.95	3.54	2	1.992	2297
54	105.41	3.50	2	1.969	1670
54	105.94	3.70	2	2.063	2270
54	106.40	3.50	2	1.969	2026
54	106.99	3.54	2	1.992	2116
54	107.45	3.50	2	1.969	2621
54	107.97	3.50	2	1.969	2550
54	108.46	3.43	2	1.922	3392
54	108.92	3.54	2	1.992	3506
54	109.42	3.50	2	1.969	4018
54	109.94	3.54	2	1.992	3186
54	110.47	3.46	2	1.945	4720
54	110.96	3.43	2	1.922	5072
54	111.48	3.70	2	2.063	3860
54	111.91	3.58	2	2.016	3370
54	112.47	3.58	2	2.016	4551
54	112.93	3.50	2	1.969	4214
54	113.45	3.54	2	1.992	4077
54	113.91	3.46	2	1.945	3719
54	114.47	3.46	2	1.945	3915
54	114.93	3.50	2	1.969	4522
54	115.49	3.50	2	1.969	4073
54	115.94	3.50	2	1.969	4938
54	116.50	3.50	2	1.969	4669
54	116.93	3.50	2	1.969	5741
54	117.42	3.43	2	1.922	5569
54	117.95	3.50	2	1.969	3510
54	118.41	3.58	2	2.016	3378
54	118.96	3.43	2	1.922	4108
54	119.39	3.31	2	1.875	2509
54	119.95	3.43	2	1.922	3068
54	120.41	3.43	2	1.922	3070
54	120.90	3.31	2	1.875	3152
54	121.46	3.23	2	1.828	2240

54	121.95	3.50	2	1.969	1453
54	122.51	3.27	2	1.852	2990
54	123.06	3.27	2	1.852	2848
54	123.62	3.58	2	2.016	3789
54	124.05	3.43	2	1.922	2966
54	124.51	3.43	2	1.922	3972
54	125.03	3.46	2	1.945	3845
54	125.49	3.43	2	1.922	3425
54	126.02	3.43	2	1.922	4717
54	126.51	3.46	2	1.945	4041
54	127.07	3.50	2	1.969	4246
54	127.56	3.74	2	2.086	3302
54	128.02	3.54	2	1.992	3557
54	128.58	3.58	2	2.016	5032
54	129.07	3.50	2	1.969	4814
54	129.53	3.50	2	1.969	4785
54	130.09	3.50	2	1.969	5200
54	130.61	3.54	2	1.992	5067
54	131.04	3.62	2	2.039	5514
54	131.46	3.58	2	2.016	5597
54	131.99	3.62	2	2.039	6095
54	132.58	3.58	2	2.016	5230
54	133.04	3.58	2	2.016	5522
54	133.53	3.54	2	1.992	5252
54	134.06	3.50	2	1.969	6262
54	134.61	3.58	2	2.016	6883
54	135.10	3.70	2	2.063	4487
54	135.60	3.90	2	2.18	4092
54	136.12	3.70	2	2.063	4796
54	136.58	3.54	2	1.992	7504
54	137.14	3.46	2	1.945	4875
54	137.63	3.54	2	1.992	5372
54	138.12	3.54	2	1.992	5748
54	138.62	3.46	2	1.945	6025
54	139.07	3.46	2	1.945	5063
54	139.57	3.62	2	2.039	3802
54	140.03	3.54	2	1.992	3701
54	140.65	3.58	2	2.016	2816
54	141.11	3.62	2	2.039	2461
54	141.63	3.46	2	1.945	2112
54	142.16	3.50	2	1.969	1951
54	142.68	3.74	2	2.086	3877
54	143.14	3.70	2	2.063	1135
54	143.57	3.98	2	2.203	1404
54	144.16	3.82	2	2.133	2296
54	144.75	3.86	2	2.156	2768
54	145.21	3.82	2	2.133	2349

54	145.67	3.90	2	2.18	2693
54	146.19	3.90	2	2.18	3399
54	146.69	3.86	2	2.156	2953
54	147.18	3.86	2	2.156	2866
54	147.64	3.86	2	2.156	5052
54	148.16	3.78	2	2.109	3430
54	148.72	3.90	2	2.18	2676
54	149.21	3.78	2	2.109	2792
54	149.64	3.86	2	2.156	2458
54	150.16	4.02	2	2.227	2681
54	150.62	3.90	2	2.18	2309
54	151.15	3.82	2	2.133	2609
54	151.61	4.06	2	2.25	2449
54	152.20	3.74	2	2.086	2891
54	152.66	3.70	2	2.063	3675
54	153.18	3.86	2	2.156	2625
54	153.71	3.70	2	2.063	2228
54	154.20	3.74	2	2.086	2031
54	154.66	3.74	2	2.086	2310
54	155.28	3.58	2	2.016	2616
54	155.74	3.78	2	2.109	4650
54	156.17	3.54	2	1.992	6218
54	156.73	3.62	2	2.039	5804
54	157.22	3.70	2	2.063	7588
54	157.71	3.86	2	2.156	5089
54	158.30	3.98	2	2.203	4877
54	158.79	3.82	2	2.133	5835
54	159.25	3.74	2	2.086	6047
54	159.74	3.78	2	2.109	5778
54	160.27	3.98	2	2.203	6026
54	160.76	3.98	2	2.203	5878
54	161.29	3.90	2	2.18	5535
54	161.78	3.98	2	2.203	5845
54	162.30	3.98	2	2.203	5707
54	162.76	4.02	2	2.227	5726
54	163.29	3.90	2	2.18	5820
54	163.71	3.90	2	2.18	5767
54	164.21	3.90	2	2.18	5156
54	164.73	3.98	2	2.203	6098
54	165.22	4.02	2	2.227	5938
54	165.78	4.17	2	2.32	4046
54	166.21	4.37	2	2.414	4283
54	166.77	4.02	2	2.227	5417
54	167.22	3.98	2	2.203	6515
54	167.78	3.86	2	2.156	6935
54	168.27	3.90	2	2.18	7008
54	168.86	3.90	2	2.18	6537

54	169.39	3.90	2	2.18	6342
54	169.85	3.98	2	2.203	5819
54	170.31	3.90	2	2.18	4694
54	170.87	3.98	2	2.203	4993
54	171.36	3.90	2	2.18	4056
54	171.88	4.09	2	2.273	2051
54	172.34	4.02	2	2.227	4620
54	172.87	4.02	2	2.227	5336
54	173.26	4.09	2	2.273	3961
54	173.82	4.21	2	2.344	4402
54	174.34	4.41	2	2.438	4326
54	174.87	4.06	2	2.25	4892
54	175.36	4.06	2	2.25	5611
54	175.75	4.06	2	2.25	6567
54	176.31	4.09	2	2.273	6201
54	176.80	4.09	2	2.273	6475
54	177.30	4.06	2	2.25	6835
54	177.82	4.09	2	2.273	6860
54	178.28	4.13	2	2.297	6848
54	178.71	4.13	2	2.297	6177
54	179.33	4.09	2	2.273	6550
54	179.86	4.09	2	2.273	6383
54	180.35	4.09	2	2.273	6067
54	180.91	4.17	2	2.32	5853
54	181.40	4.17	2	2.32	5371
54	181.86	4.41	2	2.438	5008
54	182.38	4.69	2	2.578	4530
54	182.87	4.29	2	2.367	5779
54	183.40	4.13	2	2.297	6389
54	183.89	4.17	2	2.32	6507
54	184.45	4.13	2	2.297	6803
54	184.94	4.13	2	2.297	6667
54	185.43	4.13	2	2.297	6634
54	185.93	4.13	2	2.297	6746
54	186.52	4.13	2	2.297	7292
54	187.04	4.09	2	2.273	6875
54	187.50	4.17	2	2.32	6714
54	187.89	4.13	2	2.297	6420
54	188.39	4.17	2	2.32	6632
54	188.85	4.17	2	2.32	6243
54	189.30	4.29	2	2.367	6117
54	189.96	4.37	2	2.414	4725
54	190.42	4.61	2	2.531	3721
54	190.94	4.17	2	2.32	3912
54	191.44	4.09	2	2.273	3139
54	191.93	4.06	2	2.25	3247
54	192.49	4.06	2	2.25	2187

54	192.98	3.98	2	2.203	2995
54	193.44	4.02	2	2.227	2893
54	194.00	4.17	2	2.32	1172
54	194.23	4.76	2	2.625	9456
54	194.75	4.76	2	2.625	9730
54	194.98	4.09	2	2.273	2362
54	195.51	4.09	2	2.273	2089
54	196.00	4.02	2	2.227	2500
54	196.52	4.29	2	2.367	961
54	197.01	4.02	2	2.227	2368
54	197.47	4.13	2	2.297	1131
54	198.00	4.69	2	2.578	904
54	198.56	4.88	2	2.672	929
54	198.98	4.06	2	2.25	1125
54	199.51	4.13	2	2.297	1443
54	200.03	3.78	2	2.109	1544
54	200.46	4.09	2	2.273	2212
54	200.98	4.13	2	2.297	2260
54	201.54	4.06	2	2.25	2964
54	202.03	4.06	2	2.25	2882
54	202.53	3.98	2	2.203	3582
54	203.02	3.98	2	2.203	4412
54	203.54	3.58	2	2.016	1370
54	204.00	4.76	2	2.625	2072
54	204.59	3.74	2	2.086	1763
54	205.12	3.98	2	2.203	3323
54	205.58	4.09	2	2.273	3484
54	206.00	4.69	2	2.578	1777
54	206.53	4.96	2	2.719	1705
54	206.96	4.49	2	2.484	1283
54	207.48	4.33	2	2.391	1790
54	208.01	4.21	2	2.344	2192
54	208.53	3.86	2	2.156	1880
54	209.06	4.09	2	2.273	2642
54	209.55	4.02	2	2.227	1526
54	210.14	4.09	2	2.273	2459
54	210.66	4.13	2	2.297	2897
54	211.15	4.06	2	2.25	2636
54	211.61	4.02	2	2.227	1925
54	212.14	4.49	2	2.484	1999
54	212.70	4.41	2	2.438	1280
54	213.12	4.49	2	2.484	1797
54	213.65	4.61	2	2.531	2567
54	214.14	5.04	2	2.766	2455
54	214.70	4.96	2	2.719	2743
54	215.16	4.49	2	2.484	2564
54	215.68	4.61	2	2.531	3339

54	216.08	4.41	2	2.438	1931
54	216.57	4.61	2	2.531	2362
54	217.13	4.45	2	2.461	2130
54	217.62	4.45	2	2.461	1972
54	218.14	4.45	2	2.461	1975
54	218.57	4.49	2	2.484	3375
54	219.16	4.33	2	2.391	1662
54	219.62	4.41	2	2.438	1914
54	220.21	4.61	2	2.531	2282
54	220.67	4.57	2	2.508	3491
54	221.19	4.61	2	2.531	3039
54	221.69	4.57	2	2.508	4243
54	222.15	4.96	2	2.719	3043
54	222.74	4.72	2	2.602	2114
54	223.13	4.57	2	2.508	3186
54	223.56	4.17	2	2.32	2928
54	224.25	4.17	2	2.32	3193
54	224.67	4.21	2	2.344	4059
54	225.20	4.21	2	2.344	4386
54	225.62	4.33	2	2.391	5267
54	226.12	4.33	2	2.391	4923
54	226.51	4.21	2	2.344	4962
54	227.10	4.21	2	2.344	6400
54	227.66	4.29	2	2.367	6365
54	228.15	4.33	2	2.391	6763
54	228.67	4.17	2	2.32	6511
54	229.13	4.33	2	2.391	6583
54	229.72	4.33	2	2.391	5281
54	230.22	4.69	2	2.578	4000
54	230.77	4.69	2	2.578	3725
54	231.27	4.21	2	2.344	5338
54	231.69	4.17	2	2.32	5624
54	232.19	4.09	2	2.273	4736
54	232.61	4.09	2	2.273	5168
54	233.27	4.06	2	2.25	5587
55	0.39	4.69	4	2.578	3527
55	0.95	4.92	4	2.695	3093
55	1.41	4.45	4	2.461	3471
55	2.00	4.45	4	2.461	4366
55	2.46	4.33	4	2.391	5019
55	2.85	4.37	4	2.414	5301
55	3.51	4.37	4	2.414	4994
55	3.94	4.29	4	2.367	5061
55	4.40	4.17	4	2.32	5441
55	4.92	4.13	4	2.297	6628
55	5.41	4.21	4	2.344	5126
55	5.97	4.21	4	2.344	5360

55	6.46	4.21	4	2.344	5654
55	6.99	4.13	4	2.297	5547
55	7.58	4.17	4	2.32	5801
55	7.97	4.17	4	2.32	6975
55	8.53	4.49	4	2.484	3332
55	8.96	4.49	4	2.484	3383
55	9.48	4.09	4	2.273	4856
55	9.97	3.98	4	2.203	5740
55	10.43	3.90	4	2.18	6186
55	10.96	3.98	4	2.203	6458
55	11.48	3.90	4	2.18	6266
55	12.04	3.98	4	2.203	5684
55	12.50	3.98	4	2.203	5597
55	12.93	4.06	4	2.25	6314
55	13.45	3.98	4	2.203	5585
55	13.94	3.90	4	2.18	5934
55	14.44	3.90	4	2.18	5980
55	15.03	4.06	4	2.25	5452
55	15.45	4.06	4	2.25	5210
55	15.98	3.98	4	2.203	5673
55	16.57	4.09	4	2.273	4293
55	17.16	4.06	4	2.25	4065
55	17.62	3.86	4	2.156	7558
55	18.08	3.86	4	2.156	4875
55	18.54	3.78	4	2.109	5694
55	19.06	3.78	4	2.109	5475
55	19.62	3.78	4	2.109	5640
55	20.14	3.74	4	2.086	5701
55	20.57	3.70	4	2.063	5207
55	21.00	3.78	4	2.109	7960
55	21.52	3.70	4	2.063	5606
55	21.95	3.58	4	2.016	5834
55	22.47	3.54	4	1.992	6518
55	23.00	3.62	4	2.039	5977
55	23.56	3.78	4	2.109	5348
55	24.02	3.74	4	2.086	6665
55	24.57	3.86	4	2.156	4727
55	25.13	3.98	4	2.203	4627
55	25.62	3.86	4	2.156	7981
55	26.15	3.78	4	2.109	6124
55	26.57	3.74	4	2.086	6025
55	27.03	3.62	4	2.039	6863
55	27.53	3.70	4	2.063	5838
55	27.99	3.58	4	2.016	6052
55	28.67	3.62	4	2.039	6262
55	29.20	3.58	4	2.016	5456
55	29.69	3.70	4	2.063	4962

55	30.18	3.70	4	2.063	2908
55	30.74	3.54	4	1.992	4113
55	31.20	3.70	4	2.063	4091
55	31.69	3.74	4	2.086	2733
55	32.12	3.70	4	2.063	2965
55	32.68	3.86	4	2.156	2325
55	33.20	4.02	4	2.227	1862
55	33.69	3.58	4	2.016	4244
55	34.12	3.62	4	2.039	3082
55	34.65	3.62	4	2.039	2860
55	35.20	3.54	4	1.992	3223
55	35.63	3.50	4	1.969	3684
55	36.12	3.50	4	1.969	3656
55	36.65	3.46	4	1.945	3946
55	37.20	3.50	4	1.969	4596
55	37.76	3.54	4	1.992	4290
55	38.16	3.50	4	1.969	4681
55	38.75	3.54	4	1.992	4457
55	39.17	3.50	4	1.969	4817
55	39.83	3.58	4	2.016	3748
55	40.26	3.58	4	2.016	6172
55	40.72	3.70	4	2.063	4366
55	41.31	3.74	4	2.086	4452
55	41.67	3.54	4	1.992	7189
55	42.16	3.62	4	2.039	6098
55	42.62	3.62	4	2.039	6357
55	43.18	3.58	4	2.016	6715
55	43.64	3.58	4	2.016	6120
55	44.16	3.58	4	2.016	6976
55	44.62	3.62	4	2.039	5922
55	45.21	3.62	4	2.039	6212
55	45.77	3.58	4	2.016	5865
55	46.26	3.62	4	2.039	5882
55	46.65	3.62	4	2.039	6441
55	47.21	3.62	4	2.039	6598
55	47.70	3.70	4	2.063	6550
55	48.23	3.70	4	2.063	8493
55	48.69	3.78	4	2.109	5112
55	49.28	3.86	4	2.156	4914
55	49.80	3.54	4	1.992	5782
55	50.20	3.62	4	2.039	5570
55	50.72	3.74	4	2.086	6196
55	51.31	3.58	4	2.016	5777
55	51.77	3.70	4	2.063	5738
55	52.30	3.74	4	2.086	5674
55	52.85	3.70	4	2.063	8507
55	53.25	3.74	4	2.086	5701

55	53.77	3.74	4	2.086	6566
55	54.30	3.70	4	2.063	6191
55	54.82	3.70	4	2.063	6319
55	55.31	3.70	4	2.063	6189
55	55.84	3.70	4	2.063	6148
55	56.27	3.74	4	2.086	7785
55	56.79	4.02	4	2.227	4714
55	57.35	3.98	4	2.203	4813
55	57.78	3.86	4	2.156	6749
55	58.37	3.78	4	2.109	5955
55	58.83	3.78	4	2.109	5417
55	59.32	3.74	4	2.086	5919
55	59.78	3.70	4	2.063	5904
55	60.27	3.70	4	2.063	5949
55	60.86	3.58	4	2.016	5726
55	61.38	3.58	4	2.016	5599
55	61.88	3.54	4	1.992	6080
55	62.37	3.54	4	1.992	5779
55	62.89	3.46	4	1.945	5650
55	63.42	3.50	4	1.969	5950
55	64.24	3.50	4	1.969	5709
55	64.80	3.74	4	2.086	4402
55	65.35	3.78	4	2.109	4193
55	65.75	3.58	4	2.016	5384
55	66.27	3.50	4	1.969	5272
55	66.90	3.50	4	1.969	5736
55	67.32	3.50	4	1.969	5536
55	67.75	3.50	4	1.969	5605
55	68.41	3.54	4	1.992	5567
55	68.93	3.54	4	1.992	5667
55	69.36	3.58	4	2.016	7114
55	69.85	3.54	4	1.992	5239
55	70.28	3.70	4	2.063	5522
55	70.77	3.58	4	2.016	5290
55	71.39	3.70	4	2.063	5676
55	71.92	3.74	4	2.086	5199
55	72.31	3.70	4	2.063	6210
55	72.83	3.90	4	2.18	4236
55	73.33	4.02	4	2.227	3788
55	73.82	3.82	4	2.133	6709
55	74.44	3.74	4	2.086	5185
55	75.03	3.74	4	2.086	5253
55	75.46	3.78	4	2.109	5220
55	75.95	3.70	4	2.063	5286
55	76.35	3.70	4	2.063	5495
55	76.84	3.78	4	2.109	5602
55	77.33	3.62	4	2.039	7322

55	77.89	3.70	4	2.063	6181
55	78.38	3.62	4	2.039	6617
55	78.84	3.58	4	2.016	6288
55	79.33	3.50	4	1.969	6032
55	79.89	3.54	4	1.992	6229
55	80.28	3.58	4	2.016	6765
55	80.91	3.70	4	2.063	4845
55	81.40	3.54	4	1.992	5546
55	81.89	3.43	4	1.922	6776
55	82.41	3.27	4	1.852	6887
55	82.94	3.35	4	1.898	6110
55	83.33	3.31	4	1.875	5750
55	83.92	3.43	4	1.922	3516
55	84.51	3.35	4	1.898	3326
55	84.94	3.43	4	1.922	3428
55	85.37	3.43	4	1.922	2963
55	85.99	3.46	4	1.945	3668
55	86.52	3.50	4	1.969	5565
55	87.04	3.43	4	1.922	3852
55	87.40	3.54	4	1.992	3816
55	87.93	3.43	4	1.922	4555
55	88.45	3.35	4	1.898	4995
55	88.88	3.46	4	1.945	4597
55	89.40	3.35	4	1.898	4250
55	89.90	3.35	4	1.898	4205
55	90.55	3.46	4	1.945	3336
55	90.94	3.35	4	1.898	3722
55	91.44	3.23	4	1.828	1941
55	91.86	3.50	4	1.969	3616
55	92.45	3.50	4	1.969	3044
55	92.91	3.54	4	1.992	3530
55	93.34	3.62	4	2.039	2443
55	93.83	3.58	4	2.016	3655
55	94.52	3.50	4	1.969	5952
55	95.01	3.58	4	2.016	3134
55	95.41	3.78	4	2.109	3304
55	95.90	3.70	4	2.063	3926
55	96.42	3.58	4	2.016	2724
55	96.42	3.58	4	2.016	2681
55	96.88	3.62	4	2.039	4170
55	97.44	3.70	4	2.063	3601
55	98.03	3.62	4	2.039	4255
55	98.43	3.58	4	2.016	3262
55	98.98	3.58	4	2.016	3410
55	99.51	3.50	4	1.969	3794
55	99.93	3.54	4	1.992	3455
55	100.49	3.70	4	2.063	6647

55	101.02	3.74	4	2.086	2406
55	101.44	3.78	4	2.109	2820
55	102.07	3.86	4	2.156	3826
55	102.59	3.90	4	2.18	5373
55	103.05	3.74	4	2.086	3354
55	103.51	3.90	4	2.18	2195
55	104.00	3.54	4	1.992	2437
55	104.59	3.50	4	1.969	3339
55	105.05	3.46	4	1.945	2179
55	105.51	3.35	4	1.898	2570
55	106.07	3.50	4	1.969	2600
55	106.53	3.43	4	1.922	2643
55	107.12	3.35	4	1.898	2918
55	107.61	3.54	4	1.992	5803
55	108.07	3.43	4	1.922	3282
55	108.53	3.50	4	1.969	3574
55	109.06	3.54	4	1.992	3531
55	109.51	3.54	4	1.992	3760
55	110.04	3.50	4	1.969	3665
55	110.60	3.58	4	2.016	5907
55	111.12	3.70	4	2.063	4051
55	111.65	4.02	4	2.227	3263
55	112.11	3.82	4	2.133	3686
55	112.60	3.70	4	2.063	4037
55	113.06	3.82	4	2.133	4348
55	113.58	3.86	4	2.156	4083
55	114.07	3.82	4	2.133	3789
55	114.53	3.78	4	2.109	3650
55	114.99	3.82	4	2.133	3588
55	115.62	3.82	4	2.133	4322
55	116.01	3.78	4	2.109	2913
55	116.57	3.78	4	2.109	2777
55	116.99	3.82	4	2.133	3349
55	117.49	3.86	4	2.156	3287
55	118.04	3.82	4	2.133	2732
55	118.64	3.98	4	2.203	5167
55	119.06	3.86	4	2.156	2894
55	119.49	3.98	4	2.203	2494
55	120.05	3.90	4	2.18	3163
55	120.51	3.78	4	2.109	4648
55	121.00	3.82	4	2.133	4003
55	121.56	3.90	4	2.18	3273
55	122.11	4.06	4	2.25	3119
55	122.60	3.78	4	2.109	4241
55	123.20	3.74	4	2.086	4632
55	123.75	3.58	4	2.016	3565
55	124.21	3.70	4	2.063	3237

55	124.64	3.70	4	2.063	3344
55	125.13	3.62	4	2.039	4385
55	125.56	3.62	4	2.039	4410
55	126.08	3.54	4	1.992	3990
55	126.67	3.70	4	2.063	6783
55	127.17	3.70	4	2.063	3378
55	127.62	3.98	4	2.203	2514
55	128.15	3.70	4	2.063	2707
55	128.67	3.54	4	1.992	3652
55	129.23	3.58	4	2.016	3356
55	129.66	3.70	4	2.063	2484
55	130.25	3.70	4	2.063	3632
55	130.71	3.74	4	2.086	4022
55	131.14	3.86	4	2.156	4832
55	131.66	3.82	4	2.133	7959
55	132.05	3.90	4	2.18	7849
55	132.68	3.82	4	2.133	5034
55	133.14	3.82	4	2.133	4223
55	133.56	3.82	4	2.133	4718
55	134.12	3.90	4	2.18	4053
55	134.71	3.98	4	2.203	5128
55	135.24	3.90	4	2.18	3036
55	135.66	4.29	4	2.367	2550
55	136.25	3.90	4	2.18	2470
55	136.75	3.70	4	2.063	3674
55	137.27	3.82	4	2.133	3230
55	137.76	3.86	4	2.156	2462
55	138.22	3.82	4	2.133	2891
55	138.75	3.90	4	2.18	2933
55	139.14	3.86	4	2.156	3328
55	139.70	4.02	4	2.227	5320
55	140.12	3.90	4	2.18	2050
55	140.75	3.90	4	2.18	2587
55	141.17	3.90	4	2.18	3152
55	141.73	4.02	4	2.227	3367
55	142.29	4.02	4	2.227	3155
55	142.81	4.02	4	2.227	4374
55	143.27	4.06	4	2.25	2431
55	143.73	4.41	4	2.438	2550
55	144.26	4.06	4	2.25	3041
55	144.78	3.86	4	2.156	3012
55	145.28	3.90	4	2.18	2926
55	145.73	3.98	4	2.203	3178
55	146.19	3.86	4	2.156	2366
55	146.78	3.78	4	2.109	1988
55	147.21	3.78	4	2.109	2429
55	147.70	3.46	4	1.945	4877

55	148.26	3.50	4	1.969	3090
55	148.75	3.70	4	2.063	4210
55	149.28	3.54	4	1.992	4694
55	149.70	3.62	4	2.039	4593
55	150.23	3.54	4	1.992	5271
55	150.69	3.58	4	2.016	5914
55	151.21	3.58	4	2.016	5428
55	151.67	3.82	4	2.133	4240
55	152.26	3.54	4	1.992	5392
55	152.76	3.46	4	1.945	7872
55	153.28	3.54	4	1.992	6124
55	153.81	3.46	4	1.945	6272
55	154.30	3.43	4	1.922	5892
55	154.79	3.50	4	1.969	5422
55	155.35	3.46	4	1.945	5356
55	155.71	3.50	4	1.969	5384
55	156.27	3.50	4	1.969	5996
55	156.79	3.54	4	1.992	6030
55	157.32	3.50	4	1.969	6453
55	157.78	3.86	4	2.156	4386
55	158.37	4.06	4	2.25	3473
55	158.89	3.86	4	2.156	6157
55	159.35	3.82	4	2.133	5679
55	159.84	3.78	4	2.109	5667
55	160.33	3.82	4	2.133	5523
55	160.86	3.82	4	2.133	5623
55	161.32	3.86	4	2.156	5793
55	161.81	3.86	4	2.156	5256
55	162.40	3.86	4	2.156	5210
55	162.83	3.90	4	2.18	5689
55	163.32	3.90	4	2.18	5470
55	163.78	3.98	4	2.203	4660
55	164.27	3.98	4	2.203	5206
55	164.76	4.02	4	2.227	5035
55	165.29	3.90	4	2.18	5618
55	165.78	4.17	4	2.32	3689
55	166.24	4.45	4	2.461	3350
55	166.86	4.02	4	2.227	6378
55	167.32	3.90	4	2.18	4816
55	167.81	3.98	4	2.203	5368
55	168.37	3.90	4	2.18	5466
55	168.90	3.90	4	2.18	5343
55	169.49	3.98	4	2.203	4969
55	169.95	3.90	4	2.18	4574
55	170.37	3.90	4	2.18	5414
55	170.90	3.90	4	2.18	5153
55	171.39	3.98	4	2.203	4630

55	171.95	4.02	4	2.227	4800
55	172.44	3.98	4	2.203	5098
55	172.93	4.06	4	2.25	4791
55	173.39	3.74	4	2.086	1831
55	173.85	4.29	4	2.367	3705
55	174.44	4.49	4	2.484	2875
55	175.00	4.13	4	2.297	5617
55	175.46	4.13	4	2.297	4208
55	175.89	4.09	4	2.273	4632
55	176.38	4.09	4	2.273	4779
55	176.87	4.09	4	2.273	4646
55	177.40	4.13	4	2.297	4450
55	177.89	4.17	4	2.32	4715
55	178.35	4.02	4	2.227	3578
55	178.81	4.17	4	2.32	4483
55	179.46	4.09	4	2.273	4490
55	179.89	4.09	4	2.273	4442
55	180.45	4.09	4	2.273	4456
55	180.97	4.13	4	2.297	4404
55	181.40	4.13	4	2.297	4877
55	181.89	4.37	4	2.414	2979
55	182.38	4.69	4	2.578	2717
55	183.01	4.17	4	2.32	4777
55	183.43	4.13	4	2.297	4844
55	183.96	4.06	4	2.25	4772
55	184.45	4.02	4	2.227	4718
55	184.97	4.06	4	2.25	4568
55	185.43	4.13	4	2.297	5125
55	186.02	4.13	4	2.297	6694
55	186.58	4.09	4	2.273	4853
55	187.07	4.09	4	2.273	5349
55	187.50	4.09	4	2.273	4388
55	187.89	4.13	4	2.297	5010
55	188.42	4.21	4	2.344	4932
55	188.85	4.17	4	2.32	4767
55	189.40	4.09	4	2.273	4594
55	189.93	4.49	4	2.484	3578
55	190.42	4.88	4	2.672	3623
55	190.98	4.33	4	2.391	5556
55	191.47	4.21	4	2.344	4195
55	191.96	4.13	4	2.297	5074
55	192.52	4.09	4	2.273	4664
55	192.95	4.17	4	2.32	4750
55	193.47	4.06	4	2.25	4933
55	193.96	4.17	4	2.32	4439
55	194.52	4.06	4	2.25	4993
55	194.98	4.02	4	2.227	4898

55	195.51	4.06	4	2.25	5372
55	196.00	4.02	4	2.227	5465
55	196.56	4.09	4	2.273	4365
55	197.01	4.13	4	2.297	4318
55	197.51	4.17	4	2.32	5060
55	197.93	4.41	4	2.438	2963
55	198.52	4.57	4	2.508	2438
55	199.08	4.29	4	2.367	5707
55	199.54	4.13	4	2.297	4289
55	200.07	4.09	4	2.273	4828
55	200.46	4.13	4	2.297	4451
55	200.98	4.13	4	2.297	4825
55	201.51	4.13	4	2.297	4566
55	202.00	4.13	4	2.297	4741
55	202.53	4.09	4	2.273	5677
55	202.95	4.13	4	2.297	4447
55	203.54	4.17	4	2.32	4332
55	204.07	4.29	4	2.367	5215
55	204.59	4.21	4	2.344	5756
55	205.09	4.17	4	2.32	5560
55	205.54	4.33	4	2.391	5237
55	206.04	4.61	4	2.531	4027
55	206.46	4.76	4	2.625	3668
55	206.96	4.45	4	2.461	4199
55	207.51	4.29	4	2.367	4913
55	208.01	4.17	4	2.32	5386
55	208.53	4.17	4	2.32	5383
55	209.09	4.13	4	2.297	5219
55	209.51	4.13	4	2.297	5281
55	210.10	4.17	4	2.32	5029
55	210.66	4.17	4	2.32	5688
55	211.15	4.13	4	2.297	4263
55	211.65	4.13	4	2.297	4682
55	212.17	4.13	4	2.297	5148
55	212.66	4.13	4	2.297	5016
55	213.12	4.21	4	2.344	4891
55	213.68	4.29	4	2.367	5459
55	214.17	4.65	4	2.555	3529
55	214.70	4.72	4	2.602	3896
55	215.16	4.37	4	2.414	4623
55	215.58	4.21	4	2.344	5094
55	216.08	4.17	4	2.32	5455
55	216.50	4.21	4	2.344	5543
55	217.09	4.21	4	2.344	4867
55	217.62	4.21	4	2.344	4810
55	218.14	4.17	4	2.32	5159
55	218.70	4.29	4	2.367	5603

55	219.13	4.13	4	2.297	5207
55	219.65	4.17	4	2.32	5917
55	220.14	4.17	4	2.32	5068
55	220.70	4.17	4	2.32	4500
55	221.23	4.21	4	2.344	4982
55	221.69	4.37	4	2.414	5483
55	222.18	4.69	4	2.578	3301
55	222.77	4.69	4	2.578	3412
55	223.20	4.45	4	2.461	4887
55	223.62	4.37	4	2.414	5116
55	224.28	4.45	4	2.461	4738
55	224.77	4.37	4	2.414	4228
55	225.20	4.33	4	2.391	4440
55	225.66	4.37	4	2.414	4388
55	226.18	4.37	4	2.414	5135
55	226.54	4.37	4	2.414	4711
55	227.13	4.33	4	2.391	5112
55	227.69	4.41	4	2.438	5201
55	228.15	4.33	4	2.391	4622
55	228.74	4.29	4	2.367	5232
55	229.20	4.33	4	2.391	4487
55	229.76	4.37	4	2.414	5408
55	230.25	4.76	4	2.625	2923
55	230.77	4.76	4	2.625	2640
55	231.27	4.37	4	2.414	3284
55	231.73	4.29	4	2.367	3737
55	232.19	4.21	4	2.344	3448
55	232.68	4.13	4	2.297	3267
55	233.27	4.13	4	2.297	3387
56	0.16	4.41	6	2.438	4350
56	0.72	4.41	6	2.438	4807
56	1.21	4.41	6	2.438	4846
56	1.67	4.45	6	2.461	4386
56	2.20	4.49	6	2.484	3828
56	2.66	4.88	6	2.672	3049
56	3.18	4.76	6	2.625	3356
56	3.64	4.33	6	2.391	2561
56	4.23	4.41	6	2.438	4735
56	4.72	4.45	6	2.461	4461
56	5.28	4.45	6	2.461	4479
56	5.74	4.37	6	2.414	4253
56	6.33	4.45	6	2.461	4586
56	6.86	4.37	6	2.414	4289
56	7.28	4.49	6	2.484	4112
56	7.78	4.41	6	2.438	4515
56	8.27	4.45	6	2.461	4388
56	8.69	4.45	6	2.461	4492

56	9.15	4.45	6	2.461	4427
56	9.78	4.41	6	2.438	4401
56	10.24	4.33	6	2.391	4156
56	10.66	4.65	6	2.555	3185
56	11.22	4.61	6	2.531	3452
56	11.75	4.17	6	2.32	4329
56	12.17	4.29	6	2.367	4377
56	12.17	4.29	6	2.367	4381
56	12.73	4.21	6	2.344	5082
56	13.29	4.21	6	2.344	5390
56	13.78	4.17	6	2.32	4722
56	14.30	4.17	6	2.32	4744
56	14.80	4.09	6	2.273	4955
56	15.26	4.13	6	2.297	4643
56	15.85	4.17	6	2.32	4626
56	16.31	4.17	6	2.32	4816
56	16.90	4.21	6	2.344	4960
56	17.36	4.29	6	2.367	5084
56	17.88	4.33	6	2.391	5875
56	18.31	4.45	6	2.461	4381
56	18.73	4.76	6	2.625	3394
56	19.23	4.65	6	2.555	3101
56	19.78	4.21	6	2.344	5285
56	20.28	4.29	6	2.367	4563
56	20.80	4.21	6	2.344	4859
56	21.26	4.17	6	2.32	4996
56	21.82	4.17	6	2.32	4998
56	22.24	4.17	6	2.32	5251
56	22.80	4.06	6	2.25	5285
56	23.33	4.17	6	2.32	5275
56	23.92	4.13	6	2.297	5118
56	24.41	4.13	6	2.297	5165
56	24.93	4.17	6	2.32	5195
56	25.39	4.21	6	2.344	5632
56	25.89	4.33	6	2.391	5172
56	26.48	4.41	6	2.438	3983
56	26.94	4.76	6	2.625	3280
56	27.40	4.45	6	2.461	3891
56	27.82	4.21	6	2.344	5043
56	28.31	4.21	6	2.344	5552
56	28.81	4.17	6	2.32	6343
56	29.33	4.13	6	2.297	6130
56	29.89	4.09	6	2.273	6231
56	30.48	4.02	6	2.227	5682
56	30.91	3.98	6	2.203	5763
56	31.46	4.02	6	2.227	6051
56	31.89	4.06	6	2.25	6096

56	32.48	4.06	6	2.25	5948
56	32.97	4.09	6	2.273	5565
56	33.40	4.13	6	2.297	5376
56	33.89	4.13	6	2.297	5046
56	34.45	4.29	6	2.367	4389
56	34.88	4.61	6	2.531	3560
56	35.47	4.29	6	2.367	3809
56	35.89	4.09	6	2.273	6855
56	36.38	4.06	6	2.25	5050
56	36.91	4.02	6	2.227	5276
56	37.43	4.02	6	2.227	5115
56	37.89	4.02	6	2.227	5256
56	38.42	4.02	6	2.227	5076
56	38.91	4.06	6	2.25	4772
56	39.34	4.17	6	2.32	6956
56	39.96	4.09	6	2.273	4995
56	40.49	4.17	6	2.32	5299
56	40.91	4.17	6	2.32	5513
56	41.44	4.17	6	2.32	5391
56	41.93	4.29	6	2.367	4947
56	42.42	4.37	6	2.414	5997
56	42.98	4.72	6	2.602	3464
56	43.47	4.37	6	2.414	4039
56	44.03	4.09	6	2.273	5864
56	44.55	4.09	6	2.273	5538
56	45.01	4.06	6	2.25	5386
56	45.51	4.06	6	2.25	5370
56	45.93	3.98	6	2.203	5631
56	46.33	3.98	6	2.203	5867
56	46.85	3.98	6	2.203	5646
56	47.41	4.06	6	2.25	7394
56	47.97	4.09	6	2.273	5516
56	48.46	4.09	6	2.273	5976
56	48.95	4.02	6	2.227	6107
56	49.44	4.06	6	2.25	5625
56	49.97	4.06	6	2.25	5687
56	50.43	4.17	6	2.32	6192
56	51.02	4.49	6	2.484	3593
56	51.51	4.29	6	2.367	4092
56	52.03	4.06	6	2.25	6474
56	52.46	3.98	6	2.203	6485
56	53.02	4.02	6	2.227	5597
56	53.51	4.02	6	2.227	5927
56	53.97	4.02	6	2.227	5420
56	54.59	3.98	6	2.203	6393
56	55.09	3.98	6	2.203	6874
56	55.54	4.06	6	2.25	5730

56	56.10	4.02	6	2.227	5078
56	56.56	3.98	6	2.203	5671
56	57.05	4.02	6	2.227	5187
56	57.48	4.06	6	2.25	4967
56	58.01	4.09	6	2.273	4954
56	58.50	4.13	6	2.297	4665
56	58.99	4.41	6	2.438	3359
56	59.58	4.21	6	2.344	4094
56	60.10	4.06	6	2.25	5519
56	60.50	3.90	6	2.18	5392
56	60.96	3.90	6	2.18	5658
56	61.52	3.86	6	2.156	6204
56	62.04	3.90	6	2.18	6434
56	62.50	3.86	6	2.156	5905
56	63.06	3.82	6	2.133	6913
56	63.48	3.82	6	2.133	6096
56	63.98	3.82	6	2.133	6552
56	64.53	3.86	6	2.156	6696
56	65.09	3.86	6	2.156	5630
56	65.62	3.90	6	2.18	5712
56	66.11	3.98	6	2.203	4872
56	66.57	4.09	6	2.273	5250
56	67.19	4.41	6	2.438	3301
56	67.65	4.17	6	2.32	3575
56	68.11	3.90	6	2.18	4775
56	68.64	4.02	6	2.227	4902
56	69.19	3.90	6	2.18	4706
56	69.65	3.90	6	2.18	5046
56	70.14	3.98	6	2.203	4833
56	70.60	3.98	6	2.203	5092
56	71.03	3.98	6	2.203	4666
56	71.59	4.02	6	2.227	4318
56	72.05	3.90	6	2.18	4869
56	72.57	3.90	6	2.18	5360
56	73.10	3.86	6	2.156	4953
56	73.56	3.86	6	2.156	4839
56	74.08	3.98	6	2.203	4919
56	74.61	3.86	6	2.156	4528
56	75.03	3.98	6	2.203	3876
56	75.62	3.86	6	2.156	4335
56	76.08	3.58	6	2.016	5928
56	76.61	3.58	6	2.016	5687
56	77.10	3.58	6	2.016	5672
56	77.66	3.58	6	2.016	4243
56	78.15	3.78	6	2.109	4515
56	78.64	3.70	6	2.063	2539
56	79.10	3.58	6	2.016	2121

56	79.56	3.46	6	1.945	2199
56	80.12	3.58	6	2.016	2074
56	80.68	3.43	6	1.922	3691
56	81.14	3.54	6	1.992	2525
56	81.73	3.82	6	2.133	1973
56	82.19	3.54	6	1.992	2205
56	82.61	3.70	6	2.063	5146
56	83.14	3.58	6	2.016	2746
56	83.69	3.70	6	2.063	2998
56	84.09	3.62	6	2.039	2530
56	84.65	3.62	6	2.039	3004
56	85.14	3.70	6	2.063	3073
56	85.76	2.95	6	1.688	3568
56	86.19	3.62	6	2.039	3019
56	86.61	3.78	6	2.109	3039
56	87.14	3.78	6	2.109	2842
56	87.63	3.82	6	2.133	2306
56	88.09	3.86	6	2.156	2714
56	88.58	3.82	6	2.133	3190
56	89.14	3.98	6	2.203	2328
56	89.73	4.13	6	2.297	2383
56	90.22	4.02	6	2.227	5248
56	90.58	3.82	6	2.133	5020
56	91.11	3.90	6	2.18	2837
56	91.63	3.82	6	2.133	3815
56	92.22	3.98	6	2.203	3965
56	92.65	3.90	6	2.18	3136
56	93.21	3.86	6	2.156	2434
56	93.80	3.98	6	2.203	2993
56	94.19	3.98	6	2.203	2566
56	94.46	4.29	6	2.367	9741
56	94.95	4.41	6	2.438	9080
56	95.41	4.29	6	2.367	9391
56	95.90	4.37	6	2.414	8971
56	96.19	3.82	6	2.133	445
56	96.72	3.50	6	1.969	2338
56	97.15	3.54	6	1.992	3801
56	97.70	3.86	6	2.156	3431
56	98.16	3.70	6	2.063	3555
56	98.75	3.54	6	1.992	5011
56	99.28	3.58	6	2.016	5455
56	99.84	3.54	6	1.992	5138
56	100.26	3.54	6	1.992	4674
56	100.72	3.46	6	1.945	4429
56	101.31	3.50	6	1.969	4668
56	101.80	3.50	6	1.969	4377
56	102.26	3.43	6	1.922	3537

56	102.72	3.35	6	1.898	3660
56	103.18	3.31	6	1.875	3206
56	103.74	3.31	6	1.875	2839
56	104.20	3.43	6	1.922	2863
56	104.72	3.27	6	1.852	4568
56	105.25	3.46	6	1.945	2052
56	105.77	3.62	6	2.039	1163
56	106.20	3.35	6	1.898	1897
56	106.76	3.50	6	1.969	5009
56	107.35	3.54	6	1.992	1456
56	107.84	3.50	6	1.969	2124
56	108.30	3.54	6	1.992	2364
56	108.76	3.70	6	2.063	2115
56	109.19	3.70	6	2.063	2330
56	109.74	3.54	6	1.992	4073
56	110.20	3.78	6	2.109	3687
56	110.83	3.78	6	2.109	2671
56	111.32	4.17	6	2.32	3546
56	111.84	3.82	6	2.133	2813
56	112.40	3.78	6	2.109	4267
56	112.86	3.78	6	2.109	3294
56	113.39	3.90	6	2.18	3380
56	113.91	3.98	6	2.203	2631
56	114.30	3.82	6	2.133	4004
56	114.80	3.86	6	2.156	5871
56	115.32	3.74	6	2.086	3429
56	115.88	3.74	6	2.086	3009
56	116.37	3.62	6	2.039	2998
56	116.83	3.74	6	2.086	2604
56	117.36	3.62	6	2.039	3635
56	117.78	3.70	6	2.063	3501
56	118.41	3.74	6	2.086	2674
56	118.83	3.70	6	2.063	2831
56	119.36	3.74	6	2.086	2950
56	119.82	3.74	6	2.086	2395
56	120.34	3.74	6	2.086	1786
56	120.80	3.54	6	1.992	4232
56	121.33	3.58	6	2.016	2980
56	121.75	3.74	6	2.086	2364
56	122.34	3.35	6	1.898	2274
56	122.87	3.31	6	1.875	2036
56	123.36	3.23	6	1.828	2967
56	123.85	3.19	6	1.805	3364
56	124.34	3.07	6	1.758	3010
56	124.84	3.19	6	1.805	2749
56	125.36	3.23	6	1.828	2616
56	125.89	3.31	6	1.875	2424

56	126.28	3.35	6	1.898	2863
56	126.84	3.31	6	1.875	2799
56	127.33	3.46	6	1.945	3200
56	127.92	3.46	6	1.945	3824
56	128.31	3.50	6	1.969	3752
56	128.81	3.46	6	1.945	3374
56	129.40	3.58	6	2.016	4211
56	129.89	3.86	6	2.156	3777
56	130.41	3.62	6	2.039	6014
56	130.84	3.54	6	1.992	7275
56	131.33	3.58	6	2.016	4768
56	131.89	3.54	6	1.992	4518
56	132.35	3.58	6	2.016	4038
56	132.78	3.46	6	1.945	4340
56	133.46	3.50	6	1.969	3641
56	133.92	3.43	6	1.922	3128
56	134.48	3.54	6	1.992	2846
56	134.97	3.54	6	1.992	4580
56	135.40	3.62	6	2.039	3956
56	135.96	3.46	6	1.945	4047
56	136.55	3.50	6	1.969	4637
56	136.94	3.43	6	1.922	4928
56	137.50	3.54	6	1.992	5066
56	138.02	3.74	6	2.086	4490
56	138.48	3.58	6	2.016	6774
56	138.91	3.46	6	1.945	6805
56	139.53	3.46	6	1.945	4698
56	140.06	3.43	6	1.922	6311
56	140.45	3.27	6	1.852	5626
56	140.88	3.27	6	1.852	6322
56	141.54	3.23	6	1.828	6864
56	141.93	3.07	6	1.758	6616
56	142.39	3.19	6	1.805	6795
56	142.85	3.19	6	1.805	5855
56	143.47	3.23	6	1.828	5002
56	144.00	3.23	6	1.828	3889
56	144.52	3.23	6	1.828	2677
56	144.95	2.99	6	1.711	2023
56	145.47	3.31	6	1.875	3120
56	146.00	3.43	6	1.922	2605
56	146.36	3.23	6	1.828	2786
56	146.88	3.31	6	1.875	5471
56	147.38	3.07	6	1.758	3119
56	147.97	2.99	6	1.711	2267
56	148.46	3.03	6	1.734	3202
56	148.95	3.11	6	1.781	6643
56	149.41	3.03	6	1.734	4823

56	150.07	3.19	6	1.805	5944
56	150.43	3.19	6	1.805	6340
56	150.98	3.19	6	1.805	5735
56	151.48	3.27	6	1.852	7141
56	151.97	3.50	6	1.969	4672
56	152.49	3.70	6	2.063	3831
56	153.02	3.43	6	1.922	6909
56	153.48	3.46	6	1.945	5709
56	154.04	3.58	6	2.016	5565
56	154.56	3.54	6	1.992	5207
56	155.02	3.46	6	1.945	5176
56	155.51	3.58	6	2.016	5326
56	156.04	3.50	6	1.969	5287
56	156.56	3.58	6	2.016	5104
56	157.02	3.58	6	2.016	4913
56	157.41	3.58	6	2.016	4677
56	157.94	3.54	6	1.992	4947
56	158.33	3.58	6	2.016	5358
56	158.92	3.70	6	2.063	5247
56	159.58	3.74	6	2.086	5629
56	160.04	3.98	6	2.203	3536
56	160.53	3.86	6	2.156	4085
56	161.02	3.54	6	1.992	6085
56	161.48	3.58	6	2.016	5281
56	161.98	3.54	6	1.992	5600
56	162.60	3.50	6	1.969	5482
56	163.09	3.46	6	1.945	5263
56	163.48	3.54	6	1.992	5465
56	163.98	3.35	6	1.898	6345
56	164.44	3.50	6	1.969	5689
56	164.96	3.54	6	1.992	5476
56	165.62	3.46	6	1.945	5956
56	166.04	3.46	6	1.945	5599
56	166.47	3.54	6	1.992	5353
56	167.09	3.50	6	1.969	5280
56	167.52	3.58	6	2.016	7360
56	168.01	3.74	6	2.086	4119
56	168.57	3.74	6	2.086	4062
56	169.09	3.50	6	1.969	7340
56	169.49	3.54	6	1.992	5413
56	169.95	3.46	6	1.945	6079
56	170.47	3.46	6	1.945	5690
56	171.00	3.50	6	1.969	5877
56	171.49	3.54	6	1.992	5455
56	172.08	3.58	6	2.016	8070
56	172.51	3.58	6	2.016	5484
56	173.06	3.58	6	2.016	5565

56	173.52	3.62	6	2.039	5204
56	174.05	3.62	6	2.039	5502
56	174.54	3.70	6	2.063	5381
56	175.03	3.62	6	2.039	5415
56	175.56	3.62	6	2.039	6766
56	175.98	3.90	6	2.18	3734
56	176.54	3.82	6	2.133	4143
56	177.07	3.50	6	1.969	5664
56	177.49	3.58	6	2.016	5430
56	178.02	3.62	6	2.039	5186
56	178.54	3.58	6	2.016	5776
56	179.04	3.54	6	1.992	5953
56	179.59	3.70	6	2.063	5548
56	180.09	3.54	6	1.992	5657
56	180.09	3.54	6	1.992	5709
56	180.58	3.58	6	2.016	5509
56	181.07	3.58	6	2.016	5816
56	181.63	3.50	6	1.969	5934
56	182.05	3.54	6	1.992	5847
56	182.64	3.54	6	1.992	5943
56	183.17	3.46	6	1.945	5632
56	183.60	3.54	6	1.992	6844
56	184.12	3.82	6	2.133	3947
56	184.68	3.58	6	2.016	4887
56	185.10	3.35	6	1.898	7764
56	185.66	3.50	6	1.969	5901
56	186.15	3.46	6	1.945	5799
56	186.71	3.50	6	1.969	5367
56	187.11	3.46	6	1.945	5533
56	187.60	3.43	6	1.922	5739
56	188.16	3.54	6	1.992	4864
56	188.75	3.46	6	1.945	5406
56	189.21	3.50	6	1.969	5932
56	189.73	3.46	6	1.945	5852
56	190.19	3.50	6	1.969	5537
56	190.75	3.50	6	1.969	5573
56	191.17	3.50	6	1.969	6006
56	191.21	3.50	6	1.969	5995
56	191.67	3.54	6	1.992	6182
56	192.06	3.70	6	2.063	4650
56	192.65	3.62	6	2.039	4430
56	193.14	3.46	6	1.945	6340
56	193.60	3.50	6	1.969	5618
56	194.19	3.46	6	1.945	5825
56	194.65	3.46	6	1.945	5455
56	195.21	3.54	6	1.992	5656
56	195.60	3.50	6	1.969	5930

56	196.16	3.43	6	1.922	6778
56	196.69	3.46	6	1.945	5622
56	197.24	3.43	6	1.922	5726
56	197.77	3.50	6	1.969	5594
56	198.20	3.46	6	1.945	5693
56	198.69	3.46	6	1.945	6037
56	199.25	3.50	6	1.969	6128
56	199.64	3.54	6	1.992	6712
56	200.16	3.70	6	2.063	4654
56	200.69	3.70	6	2.063	4430
56	201.28	3.46	6	1.945	5507
56	201.67	3.54	6	1.992	5554
56	202.13	3.46	6	1.945	5942
56	202.62	3.50	6	1.969	6111
56	203.18	3.46	6	1.945	6015
56	203.64	3.46	6	1.945	5733
56	204.20	3.50	6	1.969	7978
56	204.72	3.46	6	1.945	5726
56	205.35	3.54	6	1.992	5365
56	205.84	3.50	6	1.969	5591
56	206.30	3.50	6	1.969	5598
56	206.76	3.58	6	2.016	5283
56	207.15	3.58	6	2.016	5477
56	207.74	3.70	6	2.063	6891
56	208.20	3.90	6	2.18	4045
56	208.76	3.82	6	2.133	4044
56	209.22	3.46	6	1.945	5985
56	209.78	3.58	6	2.016	5526
56	210.30	3.58	6	2.016	5834
56	210.83	3.54	6	1.992	5894
56	211.38	3.58	6	2.016	5272
56	211.81	3.54	6	1.992	5574
56	212.30	3.46	6	1.945	6274
56	212.76	3.54	6	1.992	5181
56	213.19	3.58	6	2.016	5156
56	213.71	3.62	6	2.039	5498
56	214.27	3.62	6	2.039	5116
56	214.80	3.74	6	2.086	5681
56	215.29	3.70	6	2.063	5572
56	215.75	3.78	6	2.109	5779
56	216.17	3.98	6	2.203	4498
56	216.80	3.90	6	2.18	4847
56	217.32	3.78	6	2.109	6159
56	217.88	3.78	6	2.109	5565
56	218.34	3.78	6	2.109	5345
56	218.93	3.74	6	2.086	5375
56	219.39	3.82	6	2.133	4792

56	219.88	3.78	6	2.109	4414
56	220.41	3.78	6	2.109	5093
56	220.83	3.74	6	2.086	4391
56	221.33	3.82	6	2.133	4704
56	221.85	3.78	6	2.109	5418
56	222.41	3.78	6	2.109	5407
56	222.90	3.78	6	2.109	5689
56	223.39	3.90	6	2.18	5665
56	223.88	3.98	6	2.203	4986
56	224.38	4.33	6	2.391	3752
56	224.84	4.21	6	2.344	3760
56	225.36	4.06	6	2.25	5826
56	225.79	4.02	6	2.227	4931
56	226.35	4.02	6	2.227	5257
56	226.90	4.06	6	2.25	4796
56	227.36	4.13	6	2.297	4667
56	227.92	4.06	6	2.25	4759
56	228.41	4.09	6	2.273	5240
56	228.94	4.02	6	2.227	4850
56	229.43	4.06	6	2.25	4652
56	229.82	4.09	6	2.273	4859
56	230.48	4.09	6	2.273	4460
56	230.87	4.21	6	2.344	4157
56	231.33	4.17	6	2.32	4325
56	231.92	4.33	6	2.391	3370
56	232.38	4.88	6	2.672	2904
56	232.94	4.65	6	2.555	3623
57	0.03	4.45	8	2.461	1972
57	0.49	4.92	8	2.695	2518
57	1.18	4.72	8	2.602	2005
57	1.57	4.49	8	2.484	3703
57	2.20	4.21	8	2.344	2087
57	2.66	4.17	8	2.32	2759
57	3.08	4.13	8	2.297	3267
57	3.67	4.09	8	2.273	3251
57	4.07	4.06	8	2.25	2681
57	4.59	4.06	8	2.25	2730
57	5.12	4.09	8	2.273	3848
57	5.61	4.17	8	2.32	2301
57	6.17	4.06	8	2.25	2848
57	6.63	4.06	8	2.25	2741
57	7.15	4.06	8	2.25	3464
57	7.74	4.09	8	2.273	2464
57	8.20	4.09	8	2.273	2002
57	8.69	4.37	8	2.414	1460
57	9.22	4.57	8	2.508	1442
57	9.65	4.13	8	2.297	2413

57	10.10	4.06	8	2.25	2913
57	10.63	4.13	8	2.297	3252
57	11.12	4.06	8	2.25	4055
57	11.68	4.06	8	2.25	3556
57	12.20	4.09	8	2.273	2535
57	12.66	4.06	8	2.25	3376
57	13.16	4.09	8	2.273	3374
57	13.68	4.06	8	2.25	3054
57	14.11	4.02	8	2.227	3034
57	14.60	4.02	8	2.227	2621
57	15.19	3.98	8	2.203	3715
57	15.62	3.90	8	2.18	2388
57	16.21	4.02	8	2.227	3145
57	16.70	4.17	8	2.32	1918
57	17.29	4.02	8	2.227	2320
57	17.75	3.82	8	2.133	2209
57	18.18	3.78	8	2.109	3418
57	18.73	3.62	8	2.039	3438
57	19.23	3.58	8	2.016	2511
57	19.72	3.62	8	2.039	3526
57	20.24	3.62	8	2.039	3582
57	20.70	3.62	8	2.039	2732
57	21.19	3.62	8	2.039	3360
57	21.69	3.70	8	2.063	3721
57	22.11	3.74	8	2.086	3038
57	22.64	3.62	8	2.039	3743
57	23.23	3.62	8	2.039	3555
57	23.65	3.70	8	2.063	3046
57	24.25	3.78	8	2.109	3391
57	24.70	4.02	8	2.227	2360
57	25.30	4.06	8	2.25	2027
57	25.75	3.90	8	2.18	2401
57	26.35	3.90	8	2.18	3771
57	26.74	3.90	8	2.18	3864
57	27.26	3.90	8	2.18	2189
57	27.62	3.86	8	2.156	3677
57	28.18	3.62	8	2.039	4491
57	28.77	3.62	8	2.039	3483
57	29.40	3.58	8	2.016	4148
57	29.89	3.54	8	1.992	3631
57	30.31	3.50	8	1.969	3916
57	30.87	3.46	8	1.945	3869
57	31.36	3.50	8	1.969	3623
57	31.82	3.50	8	1.969	2744
57	32.25	3.58	8	2.016	2265
57	32.81	3.58	8	2.016	2808
57	33.33	3.58	8	2.016	2682

57	33.83	3.50	8	1.969	3412
57	34.28	3.50	8	1.969	3056
57	34.84	3.46	8	1.945	3452
57	35.33	3.31	8	1.875	4058
57	35.76	3.46	8	1.945	3942
57	36.25	3.35	8	1.898	4444
57	36.81	3.35	8	1.898	3948
57	37.37	3.31	8	1.875	3915
57	37.89	3.31	8	1.875	4974
57	38.32	3.35	8	1.898	3951
57	38.85	3.35	8	1.898	4405
57	39.30	3.35	8	1.898	4815
57	39.93	3.43	8	1.922	4411
57	40.42	3.50	8	1.969	3514
57	40.88	3.50	8	1.969	4637
57	41.40	3.50	8	1.969	4373
57	41.83	3.31	8	1.875	4908
57	42.29	3.27	8	1.852	4592
57	42.78	3.23	8	1.828	5555
57	43.34	3.23	8	1.828	5256
57	43.80	3.23	8	1.828	5535
57	44.32	3.27	8	1.852	4978
57	44.78	3.31	8	1.875	5258
57	45.34	3.35	8	1.898	5368
57	45.90	3.35	8	1.898	5046
57	46.39	3.27	8	1.852	5134
57	46.78	3.35	8	1.898	5078
57	47.38	3.31	8	1.875	4733
57	47.87	3.31	8	1.875	4670
57	48.39	3.46	8	1.945	3835
57	48.85	3.43	8	1.922	3686
57	49.34	3.62	8	2.039	3130
57	49.90	3.31	8	1.875	3916
57	50.33	3.27	8	1.852	4244
57	50.82	3.35	8	1.898	4826
57	51.48	3.27	8	1.852	3730
57	51.90	3.31	8	1.875	4130
57	52.46	3.31	8	1.875	4311
57	52.99	3.31	8	1.875	4047
57	53.44	3.27	8	1.852	3028
57	53.90	3.46	8	1.945	2765
57	54.43	3.70	8	2.063	2233
57	54.95	3.46	8	1.945	2975
57	55.48	3.46	8	1.945	3170
57	56.00	3.62	8	2.039	2725
57	56.43	3.78	8	2.109	2309
57	56.96	3.86	8	2.156	1409

57	57.48	3.82	8	2.133	1854
57	57.91	3.58	8	2.016	2198
57	58.46	3.54	8	1.992	2997
57	58.96	3.54	8	1.992	2074
57	59.97	3.62	8	2.039	3120
57	60.37	3.54	8	1.992	3480
57	60.93	3.86	8	2.156	4445
57	61.42	3.82	8	2.133	1432
57	62.04	3.90	8	2.18	2566
57	62.53	3.74	8	2.086	644
57	62.99	3.78	8	2.109	2691
57	63.52	3.62	8	2.039	2651
57	63.98	3.78	8	2.109	3309
57	64.40	3.82	8	2.133	2284
57	64.99	4.06	8	2.25	1895
57	65.49	3.98	8	2.203	2447
57	65.98	3.70	8	2.063	2670
57	66.40	3.62	8	2.039	2939
57	67.03	3.62	8	2.039	2846
57	67.49	3.58	8	2.016	3178
57	67.88	3.62	8	2.039	2491
57	68.57	3.54	8	1.992	2611
57	69.09	3.62	8	2.039	2718
57	69.52	3.70	8	2.063	3362
57	70.01	3.54	8	1.992	2642
57	70.41	3.54	8	1.992	2768
57	70.93	3.62	8	2.039	2781
57	71.59	3.58	8	2.016	2518
57	71.98	3.58	8	2.016	2937
57	72.47	4.09	8	2.273	1316
57	72.97	3.86	8	2.156	2100
57	73.49	3.98	8	2.203	1978
57	73.95	3.62	8	2.039	1957
57	74.61	3.62	8	2.039	2224
57	75.10	3.70	8	2.063	2032
57	75.59	3.50	8	1.969	2171
57	76.05	3.50	8	1.969	2438
57	76.48	3.46	8	1.945	2194
57	76.94	3.58	8	2.016	2621
57	77.49	3.54	8	1.992	2770
57	77.99	3.58	8	2.016	3290
57	78.54	3.62	8	2.039	3075
57	78.94	3.74	8	2.086	4182
57	79.43	3.58	8	2.016	2615
57	79.99	3.74	8	2.086	3639
57	80.48	3.98	8	2.203	3504
57	80.97	3.82	8	2.133	2768

57	81.50	3.50	8	1.969	3007
57	81.99	3.31	8	1.875	3582
57	82.51	3.31	8	1.875	4733
57	83.04	3.23	8	1.828	4130
57	83.50	3.27	8	1.852	4311
57	84.06	3.11	8	1.781	2846
57	84.61	2.99	8	1.711	2867
57	84.97	3.11	8	1.781	2308
57	85.43	3.23	8	1.828	3948
57	86.02	3.31	8	1.875	2707
57	86.52	3.07	8	1.758	2315
57	87.04	3.23	8	1.828	1671
57	87.50	3.50	8	1.969	1913
57	87.99	3.07	8	1.758	2632
57	88.48	3.07	8	1.758	2831
57	89.01	3.27	8	1.852	1620
57	89.44	3.03	8	1.734	2104
57	90.03	3.03	8	1.734	3555
57	90.62	2.95	8	1.688	2142
57	91.11	3.03	8	1.734	2549
57	91.54	3.03	8	1.734	2932
57	91.96	2.95	8	1.688	3009
57	92.59	2.95	8	1.688	3781
57	93.01	3.03	8	1.734	3999
57	93.44	3.07	8	1.758	3625
57	93.93	3.03	8	1.734	3795
57	94.55	2.99	8	1.711	3089
57	95.05	3.27	8	1.852	2274
57	95.51	3.19	8	1.805	3681
57	95.96	3.03	8	1.734	4645
57	96.49	3.43	8	1.922	1062
57	96.98	2.99	8	1.711	1270
57	97.51	2.95	8	1.688	1956
57	98.06	3.07	8	1.758	1902
57	98.56	3.03	8	1.734	4078
57	98.98	3.11	8	1.781	2557
57	99.57	3.23	8	1.828	3023
57	100.03	3.11	8	1.781	3127
57	100.62	3.19	8	1.805	1654
57	101.12	3.07	8	1.758	2165
57	101.61	3.19	8	1.805	3354
57	102.13	3.23	8	1.828	2755
57	102.59	3.23	8	1.828	1914
57	103.15	3.50	8	1.969	2439
57	103.64	3.35	8	1.898	1614
57	104.10	3.31	8	1.875	1637
57	104.72	3.23	8	1.828	1974

57	105.12	3.23	8	1.828	3162
57	105.54	3.43	8	1.922	1496
57	106.10	3.43	8	1.922	1810
57	106.63	3.23	8	1.828	2420
57	107.19	3.11	8	1.781	2066
57	107.61	3.27	8	1.852	1473
57	108.07	3.11	8	1.781	2000
57	108.63	3.03	8	1.734	2641
57	109.15	3.11	8	1.781	2395
57	109.65	3.27	8	1.852	2672
57	110.14	3.35	8	1.898	2409
57	110.63	3.35	8	1.898	1899
57	111.12	3.35	8	1.898	1555
57	111.75	3.58	8	2.016	1263
57	112.17	3.43	8	1.922	1401
57	112.66	3.50	8	1.969	1904
57	113.16	3.70	8	2.063	1599
57	113.62	3.46	8	1.945	1986
57	114.11	3.54	8	1.992	2318
57	114.63	3.46	8	1.945	2179
57	115.09	3.54	8	1.992	2038
57	115.68	3.70	8	2.063	2139
57	116.11	3.50	8	1.969	2623
57	116.67	3.54	8	1.992	2370
57	117.16	3.54	8	1.992	3819
57	117.65	3.50	8	1.969	2825
57	118.14	3.62	8	2.039	1957
57	118.60	3.62	8	2.039	2350
57	119.13	3.62	8	2.039	2304
57	119.55	3.86	8	2.156	1451
57	120.11	3.74	8	2.086	2987
57	120.60	3.62	8	2.039	3419
57	121.06	3.50	8	1.969	2814
57	121.65	3.58	8	2.016	1775
57	122.11	3.98	8	2.203	1857
57	122.67	3.70	8	2.063	2807
57	123.23	3.62	8	2.039	3190
57	123.75	3.54	8	1.992	2196
57	124.28	3.43	8	1.922	2191
57	124.74	3.46	8	1.945	2833
57	125.16	3.35	8	1.898	3254
57	125.66	3.43	8	1.922	3032
57	126.15	3.46	8	1.945	2805
57	126.74	3.46	8	1.945	1834
57	127.26	3.62	8	2.039	2453
57	127.66	3.70	8	2.063	2480
57	128.18	3.46	8	1.945	1446

57	128.74	3.35	8	1.898	2481
57	129.27	3.46	8	1.945	2337
57	129.69	3.43	8	1.922	1948
57	129.95	4.06	8	2.25	7988
57	130.48	4.06	8	2.25	7025
57	130.71	3.50	8	1.969	1422
57	131.20	3.50	8	1.969	1337
57	131.63	3.58	8	2.016	2735
57	132.19	3.82	8	2.133	3132
57	132.74	3.78	8	2.109	2608
57	133.20	3.86	8	2.156	2362
57	133.66	3.90	8	2.18	3344
57	134.19	3.58	8	2.016	1905
57	134.71	3.86	8	2.156	2863
57	135.24	3.98	8	2.203	1846
57	135.70	4.17	8	2.32	1506
57	136.32	3.82	8	2.133	2411
57	136.84	3.78	8	2.109	2884
57	137.27	3.74	8	2.086	3099
57	137.83	3.74	8	2.086	2045
57	138.29	3.62	8	2.039	2217
57	138.78	3.62	8	2.039	2099
57	139.24	3.62	8	2.039	2184
57	139.70	3.74	8	2.086	2861
57	140.22	3.58	8	2.016	2022
57	140.78	3.70	8	2.063	2464
57	141.21	3.78	8	2.109	2583
57	141.77	3.70	8	2.063	2318
57	141.80	3.70	8	2.063	2357
57	142.32	3.62	8	2.039	2349
57	142.78	3.74	8	2.086	1701
57	143.31	3.82	8	2.133	2058
57	143.70	4.02	8	2.227	1635
57	144.29	3.78	8	2.109	3253
57	144.85	3.70	8	2.063	2064
57	145.34	3.62	8	2.039	2240
57	145.77	3.78	8	2.109	3038
57	146.29	3.82	8	2.133	2595
57	146.82	3.74	8	2.086	2115
57	147.24	3.78	8	2.109	2190
57	147.83	3.74	8	2.086	1678
57	148.29	3.78	8	2.109	2474
57	148.79	3.70	8	2.063	2684
57	149.31	3.74	8	2.086	2259
57	149.74	3.78	8	2.109	2045
57	150.26	3.74	8	2.086	1688
57	150.79	3.82	8	2.133	1338

57	151.18	4.02	8	2.227	2169
57	151.67	3.82	8	2.133	1370
57	152.30	3.62	8	2.039	2431
57	152.85	3.62	8	2.039	3572
57	153.35	3.50	8	1.969	3886
57	153.87	3.50	8	1.969	2712
57	154.30	3.43	8	1.922	3239
57	154.82	3.35	8	1.898	2363
57	155.35	3.23	8	1.828	3307
57	155.74	3.27	8	1.852	3821
57	156.33	3.43	8	1.922	3979
57	156.86	3.46	8	1.945	3524
57	157.38	3.62	8	2.039	2845
57	157.84	3.70	8	2.063	1842
57	158.40	4.06	8	2.25	1721
57	158.86	3.82	8	2.133	2614
57	159.42	3.62	8	2.039	3166
57	159.91	3.62	8	2.039	3247
57	160.40	3.74	8	2.086	2634
57	160.89	3.78	8	2.109	2331
57	161.42	3.78	8	2.109	2923
57	161.88	3.78	8	2.109	2158
57	162.40	3.90	8	2.18	2476
57	162.86	3.98	8	2.203	1799
57	163.35	3.86	8	2.156	2619
57	163.81	3.82	8	2.133	2689
57	164.30	3.98	8	2.203	2875
57	164.83	3.98	8	2.203	2942
57	165.32	4.17	8	2.32	2475
57	165.85	4.17	8	2.32	2228
57	166.34	4.45	8	2.461	1541
57	166.86	3.90	8	2.18	2379
57	167.36	4.02	8	2.227	2983
57	167.81	4.02	8	2.227	3411
57	168.44	4.06	8	2.25	4204
57	168.96	4.09	8	2.273	3524
57	169.52	3.82	8	2.133	2889
57	169.95	3.74	8	2.086	3177
57	170.44	3.70	8	2.063	2410
57	171.00	3.78	8	2.109	2649
57	171.42	3.82	8	2.133	3521
57	171.98	3.86	8	2.156	2602
57	172.47	3.86	8	2.156	2690
57	172.97	3.90	8	2.18	3134
57	173.36	3.98	8	2.203	1928
57	173.88	4.17	8	2.32	2230
57	174.51	4.33	8	2.391	1926

57	175.00	4.06	8	2.25	2559
57	175.46	4.02	8	2.227	2390
57	175.95	3.98	8	2.203	2582
57	176.38	3.90	8	2.18	2334
57	176.90	3.90	8	2.18	2860
57	177.33	3.90	8	2.18	2650
57	177.89	3.82	8	2.133	2553
57	178.35	3.82	8	2.133	2972
57	178.87	3.82	8	2.133	3696
57	179.49	3.86	8	2.156	2913
57	179.95	3.86	8	2.156	3256
57	180.41	3.82	8	2.133	2242
57	180.97	3.98	8	2.203	1916
57	181.43	4.06	8	2.25	2510
57	181.89	4.41	8	2.438	1659
57	182.41	4.57	8	2.508	1448
57	182.97	4.06	8	2.25	2197
57	183.46	4.02	8	2.227	2308
57	183.92	3.90	8	2.18	2798
57	184.48	3.90	8	2.18	3086
57	184.94	3.90	8	2.18	3990
57	185.47	3.90	8	2.18	3426
57	185.99	3.90	8	2.18	3826
57	186.55	3.98	8	2.203	4121
57	187.04	3.90	8	2.18	3766
57	187.47	3.98	8	2.203	3998
57	187.93	3.86	8	2.156	3168
57	188.45	3.90	8	2.18	3663
57	188.88	4.02	8	2.227	3103
57	189.37	4.29	8	2.367	2775
57	189.96	4.33	8	2.391	2828
57	190.52	4.45	8	2.461	2290
57	190.98	4.17	8	2.32	2585
57	191.44	4.09	8	2.273	3018
57	191.96	4.06	8	2.25	3514
57	192.45	4.02	8	2.227	3501
57	192.95	4.09	8	2.273	3520
57	193.47	4.09	8	2.273	3486
57	194.06	4.02	8	2.227	3004
57	194.52	3.98	8	2.203	3365
57	195.05	4.02	8	2.227	3036
57	195.54	3.90	8	2.18	2540
57	196.00	3.98	8	2.203	2672
57	196.56	3.90	8	2.18	2230
57	197.05	3.90	8	2.18	2329
57	197.51	4.09	8	2.273	2371
57	198.00	4.37	8	2.414	1370

57	198.59	4.57	8	2.508	1570
57	199.05	4.09	8	2.273	1922
57	199.54	3.98	8	2.203	2530
57	200.03	3.98	8	2.203	2437
57	200.52	3.90	8	2.18	2257
57	200.98	3.82	8	2.133	1758
57	201.51	3.74	8	2.086	2395
57	202.03	3.70	8	2.063	3034
57	202.59	3.78	8	2.109	2286
57	203.05	4.06	8	2.25	382
57	203.61	4.13	8	2.297	828
57	204.17	4.33	8	2.391	2003
57	204.40	4.72	8	2.602	9251
57	204.86	4.69	8	2.578	9888
57	205.15	3.98	8	2.203	1440
57	205.61	4.29	8	2.367	1039
57	206.04	4.41	8	2.438	1407
57	206.50	4.80	8	2.648	1725
57	206.96	4.29	8	2.367	1673
57	207.48	4.17	8	2.32	2804
57	208.04	4.21	8	2.344	3143
57	208.50	4.17	8	2.32	2767
57	209.02	4.06	8	2.25	3228
57	209.48	4.06	8	2.25	3571
57	210.07	4.09	8	2.273	2780
57	210.66	4.06	8	2.25	3005
57	211.15	4.09	8	2.273	3274
57	211.61	4.09	8	2.273	3096
57	212.17	4.09	8	2.273	2972
57	212.66	4.13	8	2.297	2935
57	213.12	4.13	8	2.297	2957
57	213.65	4.29	8	2.367	2871
57	214.17	4.69	8	2.578	1989
57	214.73	4.57	8	2.508	1476
57	215.12	4.29	8	2.367	2147
57	215.55	4.13	8	2.297	2653
57	216.11	4.17	8	2.32	2937
57	216.54	4.17	8	2.32	3476
57	217.09	4.09	8	2.273	2611
57	217.59	4.09	8	2.273	2902
57	218.14	3.98	8	2.203	2723
57	218.67	4.02	8	2.227	2751
57	219.13	4.02	8	2.227	2917
57	219.62	4.06	8	2.25	3690
57	220.11	4.13	8	2.297	3509
57	220.67	4.09	8	2.273	2590
57	221.23	4.21	8	2.344	2565

57	221.65	4.29	8	2.367	2431
57	222.18	4.72	8	2.602	1377
57	222.74	4.65	8	2.555	1751
57	223.20	4.17	8	2.32	2177
57	223.65	4.17	8	2.32	2923
57	224.25	4.17	8	2.32	2045
57	224.67	4.13	8	2.297	1543
57	225.16	4.17	8	2.32	2331
57	225.66	4.09	8	2.273	2324
57	226.15	4.13	8	2.297	2376
57	226.57	4.17	8	2.32	2385
57	227.10	4.06	8	2.25	2507
57	227.69	4.09	8	2.273	2508
57	228.22	4.13	8	2.297	2564
57	228.67	4.09	8	2.273	2177
57	229.23	4.21	8	2.344	2493
57	229.72	4.65	8	2.555	1216
57	230.25	4.45	8	2.461	1322
57	230.81	4.45	8	2.461	987
57	231.23	4.13	8	2.297	1891
57	231.69	4.17	8	2.32	1485
57	232.19	4.13	8	2.297	2308
57	232.74	4.21	8	2.344	1791
58	0.26	4.21	10	2.344	4944
58	0.75	4.17	10	2.32	4761
58	1.31	4.09	10	2.273	4613
58	1.84	4.06	10	2.25	4805
58	2.26	4.09	10	2.273	4921
58	2.76	4.06	10	2.25	4959
58	3.25	4.13	10	2.297	3853
58	3.81	4.49	10	2.484	2909
58	4.33	4.13	10	2.297	4346
58	4.82	4.02	10	2.227	5058
58	5.31	4.02	10	2.227	5422
58	5.84	3.98	10	2.203	5488
58	6.43	3.98	10	2.203	5193
58	6.92	4.02	10	2.227	5148
58	7.35	3.90	10	2.18	5185
58	7.84	3.98	10	2.203	5394
58	8.37	3.98	10	2.203	5389
58	8.83	3.98	10	2.203	5504
58	9.28	4.02	10	2.227	5406
58	9.88	4.06	10	2.25	5021
58	10.30	4.02	10	2.227	5184
58	10.79	4.02	10	2.227	5234
58	11.32	4.09	10	2.273	3783
58	11.88	4.65	10	2.555	2933

58	12.37	4.13	10	2.297	4311
58	12.83	4.06	10	2.25	4874
58	13.35	3.90	10	2.18	5309
58	13.88	3.90	10	2.18	5278
58	14.34	3.90	10	2.18	5514
58	14.83	3.90	10	2.18	5069
58	15.35	3.86	10	2.156	5538
58	15.94	3.90	10	2.18	5415
58	16.40	4.02	10	2.227	5660
58	16.93	4.06	10	2.25	5531
58	17.39	4.02	10	2.227	5326
58	17.95	4.06	10	2.25	5397
58	18.37	4.02	10	2.227	5119
58	18.80	4.13	10	2.297	4527
58	19.26	4.29	10	2.367	3674
58	19.82	4.65	10	2.555	2979
58	20.37	4.21	10	2.344	4005
58	20.83	4.06	10	2.25	4803
58	21.36	4.06	10	2.25	4819
58	21.88	4.06	10	2.25	5333
58	22.38	4.02	10	2.227	4876
58	22.83	3.98	10	2.203	5195
58	23.43	3.98	10	2.203	5441
58	24.02	3.98	10	2.203	5356
58	24.48	3.90	10	2.18	5130
58	25.00	3.90	10	2.18	5240
58	25.46	3.98	10	2.203	5083
58	26.02	3.98	10	2.203	4927
58	26.57	4.02	10	2.227	4729
58	27.07	4.06	10	2.25	4804
58	27.46	4.13	10	2.297	3829
58	27.89	4.65	10	2.555	3047
58	28.44	4.09	10	2.273	4030
58	28.48	4.09	10	2.273	4052
58	28.94	4.02	10	2.227	5042
58	29.46	3.98	10	2.203	5233
58	29.95	3.86	10	2.156	5304
58	30.58	3.78	10	2.109	5473
58	31.00	3.70	10	2.063	5241
58	31.46	3.74	10	2.086	5840
58	32.02	3.74	10	2.086	5702
58	32.55	3.74	10	2.086	4937
58	33.01	3.78	10	2.109	5422
58	33.53	3.82	10	2.133	5450
58	33.96	3.86	10	2.156	5180
58	34.51	3.98	10	2.203	5226
58	34.94	3.90	10	2.18	4930

58	35.47	4.02	10	2.227	4407
58	36.02	4.41	10	2.438	2815
58	36.48	4.02	10	2.227	4169
58	36.98	3.82	10	2.133	4771
58	37.50	3.74	10	2.086	5377
58	37.96	3.78	10	2.109	5075
58	38.45	3.78	10	2.109	5252
58	39.01	3.74	10	2.086	5236
58	39.44	3.82	10	2.133	5133
58	40.03	3.82	10	2.133	5567
58	40.52	3.82	10	2.133	5340
58	41.04	3.90	10	2.18	5129
58	41.54	3.82	10	2.133	5255
58	42.06	3.82	10	2.133	5421
58	42.55	3.86	10	2.156	4805
58	43.04	4.02	10	2.227	4560
58	43.54	4.09	10	2.273	3827
58	44.13	4.29	10	2.367	3077
58	44.62	3.86	10	2.156	5016
58	45.05	3.78	10	2.109	5402
58	45.57	3.74	10	2.086	5412
58	46.06	3.70	10	2.063	5679
58	46.49	3.70	10	2.063	5359
58	46.95	3.74	10	2.086	5487
58	47.51	3.74	10	2.086	5441
58	48.06	3.74	10	2.086	5395
58	48.49	3.82	10	2.133	5345
58	49.02	3.78	10	2.109	5195
58	49.57	3.74	10	2.086	5031
58	50.03	3.74	10	2.086	5240
58	50.52	3.74	10	2.086	5149
58	51.15	3.90	10	2.18	4555
58	51.54	3.90	10	2.18	4240
58	52.10	4.17	10	2.32	3197
58	52.59	3.82	10	2.133	4447
58	53.12	3.74	10	2.086	5230
58	53.54	3.70	10	2.063	5394
58	54.04	3.70	10	2.063	5571
58	54.59	3.62	10	2.039	5382
58	55.15	3.62	10	2.039	5625
58	55.64	3.70	10	2.063	6035
58	56.20	3.74	10	2.086	5603
58	56.63	3.70	10	2.063	5411
58	57.15	3.74	10	2.086	5418
58	57.58	3.74	10	2.086	5238
58	58.04	3.74	10	2.086	5230
58	58.56	3.70	10	2.063	5485

58	59.06	3.78	10	2.109	4923
58	59.61	3.90	10	2.18	4420
58	60.17	4.17	10	2.32	3138
58	60.60	3.86	10	2.156	4286
58	61.06	3.74	10	2.086	5252
58	61.65	3.62	10	2.039	5744
58	62.11	3.62	10	2.039	5621
58	62.53	3.58	10	2.016	5568
58	63.09	3.58	10	2.016	5503
58	63.55	3.54	10	1.992	5252
58	64.01	3.58	10	2.016	5805
58	64.60	3.58	10	2.016	5816
58	65.12	3.58	10	2.016	5444
58	65.65	3.62	10	2.039	5271
58	66.14	3.70	10	2.063	5340
58	66.63	3.74	10	2.086	5495
58	67.22	3.82	10	2.133	4808
58	67.72	3.98	10	2.203	3555
58	68.21	4.37	10	2.414	2538
58	68.67	3.90	10	2.18	4543
58	69.23	3.74	10	2.086	5246
58	69.72	3.74	10	2.086	5287
58	70.64	3.74	10	2.086	5310
58	71.10	3.74	10	2.086	5659
58	71.62	3.74	10	2.086	5153
58	72.05	3.74	10	2.086	5319
58	72.60	3.74	10	2.086	5376
58	73.10	3.70	10	2.063	5173
58	73.62	3.74	10	2.086	5397
58	74.08	3.70	10	2.063	4715
58	74.64	3.62	10	2.039	5204
58	75.10	3.58	10	2.016	4966
58	75.66	3.86	10	2.156	3667
58	76.12	3.98	10	2.203	3349
58	76.64	3.54	10	1.992	4647
58	77.13	3.43	10	1.922	5718
58	77.76	3.35	10	1.898	5634
58	78.15	3.19	10	1.805	5632
58	78.64	3.11	10	1.781	4882
58	79.17	3.11	10	1.781	4595
58	79.63	3.11	10	1.781	5353
58	80.12	3.19	10	1.805	5457
58	80.68	3.27	10	1.852	5458
58	81.20	3.31	10	1.875	4819
58	81.76	3.43	10	1.922	4873
58	82.28	3.74	10	2.086	3349
58	82.71	3.54	10	1.992	3245

58	83.23	3.46	10	1.945	3902
58	83.76	3.46	10	1.945	3685
58	84.19	3.46	10	1.945	4494
58	84.74	3.46	10	1.945	3785
58	85.20	3.46	10	1.945	4034
58	85.66	3.46	10	1.945	4130
58	86.19	3.46	10	1.945	3696
58	86.65	3.46	10	1.945	3619
58	87.24	3.50	10	1.969	3411
58	87.73	3.46	10	1.945	3954
58	88.19	3.46	10	1.945	3709
58	88.68	3.50	10	1.969	3389
58	89.21	3.35	10	1.898	3986
58	89.76	3.43	10	1.922	3634
58	90.22	3.70	10	2.063	2639
58	90.68	3.54	10	1.992	3095
58	91.21	3.43	10	1.922	4184
58	91.77	3.46	10	1.945	3212
58	92.32	3.46	10	1.945	2841
58	92.78	3.46	10	1.945	3310
58	93.27	3.58	10	2.016	2295
58	93.77	3.35	10	1.898	2927
58	94.29	3.46	10	1.945	3043
58	94.78	3.43	10	1.922	4142
58	95.24	3.46	10	1.945	3907
58	95.70	3.43	10	1.922	3273
58	96.23	3.27	10	1.852	3223
58	96.75	3.46	10	1.945	3442
58	97.18	3.27	10	1.852	2236
58	97.77	3.90	10	2.18	1785
58	98.23	3.70	10	2.063	2508
58	98.82	3.58	10	2.016	2350
58	99.34	3.50	10	1.969	2701
58	99.90	3.50	10	1.969	2521
58	100.33	3.62	10	2.039	2873
58	100.82	3.70	10	2.063	2594
58	101.38	3.54	10	1.992	2262
58	101.84	3.58	10	2.016	3839
58	102.33	3.54	10	1.992	3036
58	102.79	3.54	10	1.992	3483
58	103.31	3.54	10	1.992	3004
58	103.77	3.54	10	1.992	3153
58	104.27	3.43	10	1.922	2678
58	104.76	3.46	10	1.945	3190
58	105.28	3.46	10	1.945	3074
58	105.87	3.54	10	1.992	1748
58	106.23	3.58	10	2.016	1838

58	106.82	3.46	10	1.945	2099
58	107.38	3.31	10	1.875	2782
58	107.87	3.27	10	1.852	2741
58	108.33	3.27	10	1.852	3753
58	108.79	3.35	10	1.898	3355
58	109.25	3.35	10	1.898	3412
58	109.78	3.35	10	1.898	3364
58	110.24	3.31	10	1.875	3361
58	110.86	3.43	10	1.922	3428
58	111.35	3.74	10	2.086	2707
58	111.84	3.35	10	1.898	3868
58	112.43	3.35	10	1.898	4804
58	112.93	3.31	10	1.875	4173
58	113.39	3.35	10	1.898	3588
58	113.88	3.43	10	1.922	4006
58	114.34	3.50	10	1.969	2610
58	114.86	3.43	10	1.922	3692
58	115.35	3.31	10	1.875	4027
58	115.85	3.31	10	1.875	5076
58	116.40	3.31	10	1.875	4677
58	116.90	3.27	10	1.852	3824
58	117.36	3.27	10	1.852	3774
58	117.85	3.43	10	1.922	3152
58	118.47	3.23	10	1.828	5239
58	118.90	3.23	10	1.828	5673
58	119.42	3.27	10	1.852	5171
58	119.88	3.23	10	1.828	5063
58	120.47	3.19	10	1.805	4567
58	120.90	3.19	10	1.805	5250
58	121.33	3.19	10	1.805	4279
58	121.82	3.11	10	1.781	5064
58	122.38	3.23	10	1.828	4413
58	122.90	3.11	10	1.781	4468
58	123.39	3.07	10	1.758	5257
58	123.88	3.03	10	1.734	5129
58	124.41	3.07	10	1.758	4089
58	124.90	3.03	10	1.734	4370
58	125.46	3.07	10	1.758	5171
58	125.92	3.07	10	1.758	4383
58	126.38	3.07	10	1.758	4862
58	126.90	3.07	10	1.758	4868
58	127.40	3.07	10	1.758	4702
58	127.99	3.11	10	1.781	4000
58	128.41	3.11	10	1.781	4159
58	128.87	3.07	10	1.758	4159
58	129.43	3.19	10	1.805	3685
58	129.92	3.07	10	1.758	4543

58	130.41	3.27	10	1.852	4008
58	131.00	2.60	10	1.523	1759
58	131.40	2.48	10	1.453	1934
58	131.96	2.52	10	1.477	1436
58	132.41	2.60	10	1.523	2129
58	132.91	2.72	10	1.57	2008
58	133.50	3.07	10	1.758	1865
58	134.02	3.19	10	1.805	2426
58	134.51	3.11	10	1.781	2794
58	135.01	3.07	10	1.758	1864
58	135.47	3.11	10	1.781	1751
58	135.99	3.11	10	1.781	1665
58	136.55	3.27	10	1.852	2067
58	137.01	3.07	10	1.758	1789
58	137.57	3.19	10	1.805	1836
58	138.02	3.19	10	1.805	1872
58	138.48	3.35	10	1.898	1173
58	138.98	3.23	10	1.828	1867
58	139.60	3.07	10	1.758	1815
58	140.06	3.03	10	1.734	2459
58	140.52	3.11	10	1.781	2543
58	140.98	2.99	10	1.711	3407
58	141.54	2.95	10	1.688	3970
58	141.99	3.03	10	1.734	3371
58	142.42	2.91	10	1.664	3744
58	142.91	2.95	10	1.688	4870
58	143.54	2.95	10	1.688	5104
58	144.03	2.91	10	1.664	4886
58	144.52	2.95	10	1.688	5699
58	144.98	2.95	10	1.688	5438
58	145.54	2.91	10	1.664	6247
58	146.03	2.91	10	1.664	5447
58	146.49	3.03	10	1.734	5372
58	146.98	2.95	10	1.688	5189
58	147.44	2.91	10	1.664	6275
58	148.03	2.83	10	1.641	5437
58	148.46	2.83	10	1.641	5462
58	148.88	2.91	10	1.664	5104
58	149.48	2.83	10	1.641	4007
58	150.10	2.99	10	1.711	5191
58	150.49	3.03	10	1.734	5885
58	150.98	3.07	10	1.758	6269
58	151.51	3.07	10	1.758	6348
58	152.03	3.19	10	1.805	5836
58	152.49	3.27	10	1.852	5548
58	153.08	3.90	10	2.18	4350
58	153.54	3.43	10	1.922	4806

58	154.07	3.43	10	1.922	5582
58	154.59	3.35	10	1.898	5833
58	155.02	3.43	10	1.922	5989
58	155.58	3.35	10	1.898	6016
58	156.07	3.46	10	1.945	5706
58	156.59	3.43	10	1.922	5601
58	157.09	3.43	10	1.922	5376
58	157.48	3.31	10	1.875	5626
58	157.94	3.43	10	1.922	5517
58	158.43	3.43	10	1.922	5638
58	158.92	3.46	10	1.945	5596
58	159.58	3.46	10	1.945	5655
58	160.07	3.46	10	1.945	5206
58	160.56	3.54	10	1.992	4866
58	161.06	3.90	10	2.18	3663
58	161.55	3.46	10	1.945	5034
58	162.01	3.35	10	1.898	5303
58	162.57	3.31	10	1.875	5774
58	163.12	3.27	10	1.852	5378
58	164.01	3.27	10	1.852	5789
58	164.50	3.27	10	1.852	5297
58	165.03	3.27	10	1.852	5598
58	165.62	3.27	10	1.852	5783
58	166.08	3.35	10	1.898	5389
58	166.54	3.35	10	1.898	5510
58	167.13	3.31	10	1.875	5513
58	167.62	3.31	10	1.875	5318
58	168.11	3.43	10	1.922	5192
58	168.57	3.50	10	1.969	4058
58	169.16	3.86	10	2.156	3156
58	169.59	3.50	10	1.969	4215
58	170.01	3.35	10	1.898	5094
58	170.51	3.27	10	1.852	4965
58	170.54	3.27	10	1.852	4990
58	171.06	3.31	10	1.875	5310
58	171.56	3.31	10	1.875	5486
58	172.15	3.31	10	1.875	5569
58	172.54	3.31	10	1.875	5697
58	173.13	3.27	10	1.852	6149
58	173.52	3.31	10	1.875	5729
58	174.11	3.31	10	1.875	5891
58	174.54	3.31	10	1.875	5852
58	175.13	3.31	10	1.875	5731
58	175.66	3.31	10	1.875	5924
58	176.08	3.31	10	1.875	5579
58	176.57	3.43	10	1.922	4843
58	177.03	3.62	10	2.039	4112

58	177.53	3.46	10	1.945	4894
58	178.08	3.27	10	1.852	5622
58	178.58	3.23	10	1.828	5830
58	179.10	3.19	10	1.805	5839
58	179.63	3.19	10	1.805	5892
58	180.12	3.19	10	1.805	6181
58	180.58	3.19	10	1.805	6252
58	181.10	3.19	10	1.805	5863
58	181.63	3.23	10	1.828	5419
58	182.09	3.23	10	1.828	5410
58	182.71	3.23	10	1.828	5887
58	183.23	3.19	10	1.805	5515
58	183.63	3.23	10	1.828	5766
58	184.22	3.23	10	1.828	5587
58	184.65	3.31	10	1.875	4815
58	185.14	3.74	10	2.086	3573
58	185.66	3.31	10	1.875	5096
58	186.15	3.27	10	1.852	5580
58	186.75	3.23	10	1.828	5412
58	187.17	3.23	10	1.828	5528
58	187.63	3.27	10	1.852	6045
58	188.22	3.23	10	1.828	5522
58	188.71	3.11	10	1.781	5590
58	189.17	3.11	10	1.781	6040
58	189.76	3.07	10	1.758	6224
58	190.19	3.07	10	1.758	5789
58	190.75	3.07	10	1.758	5942
58	191.17	3.23	10	1.828	5882
58	191.73	3.19	10	1.805	5923
58	192.13	3.23	10	1.828	5158
58	192.68	3.31	10	1.875	5050
58	193.11	3.62	10	2.039	4054
58	193.67	3.35	10	1.898	5248
58	194.23	3.31	10	1.875	5713
58	194.72	3.31	10	1.875	5368
58	195.28	3.31	10	1.875	5408
58	195.70	3.43	10	1.922	5430
58	196.16	3.35	10	1.898	5598
58	196.75	3.43	10	1.922	5358
58	197.28	3.43	10	1.922	5486
58	197.77	3.43	10	1.922	5535
58	198.23	3.35	10	1.898	5528
58	198.72	3.31	10	1.875	5783
58	199.28	3.35	10	1.898	5830
58	199.70	3.31	10	1.875	5675
58	200.23	3.31	10	1.875	5367
58	200.75	3.35	10	1.898	5544

58	201.31	3.74	10	2.086	3803
58	201.74	3.35	10	1.898	4657
58	202.17	3.31	10	1.875	5426
58	202.69	3.35	10	1.898	5763
58	203.22	3.31	10	1.875	5559
58	203.25	3.31	10	1.875	5608
58	203.71	3.27	10	1.852	5794
58	204.20	3.31	10	1.875	5550
58	204.76	3.35	10	1.898	5709
58	205.35	3.43	10	1.922	5395
58	205.84	3.43	10	1.922	4730
58	206.36	3.43	10	1.922	4963
58	206.76	3.43	10	1.922	5355
58	207.25	3.46	10	1.945	5427
58	207.78	3.50	10	1.969	5114
58	208.27	3.43	10	1.922	5213
58	208.79	3.54	10	1.992	4957
58	209.32	3.90	10	2.18	3345
58	209.84	3.54	10	1.992	5168
58	210.33	3.46	10	1.945	5537
58	210.86	3.46	10	1.945	5517
58	211.42	3.46	10	1.945	5624
58	211.88	3.46	10	1.945	5356
58	212.34	3.46	10	1.945	5306
58	212.83	3.43	10	1.922	5471
58	213.29	3.43	10	1.922	5540
58	213.81	3.46	10	1.945	5235
58	214.30	3.46	10	1.945	5561
58	214.34	3.46	10	1.945	5528
58	214.83	3.50	10	1.969	5434
58	215.35	3.58	10	2.016	5131
58	215.81	3.58	10	2.016	5164
58	216.27	3.62	10	2.039	4696
58	216.83	3.74	10	2.086	4311
58	217.39	4.02	10	2.227	3514
58	217.91	3.74	10	2.086	5037
58	218.41	3.74	10	2.086	5116
58	218.96	3.74	10	2.086	4786
58	219.46	3.86	10	2.156	4725
58	219.91	3.90	10	2.18	4768
58	220.41	3.78	10	2.109	4719
58	220.90	3.86	10	2.156	4571
58	221.33	3.90	10	2.18	4772
58	221.92	3.98	10	2.203	4786
58	222.44	3.98	10	2.203	5016
58	222.93	3.98	10	2.203	4838
58	223.43	4.02	10	2.227	4757

58	223.95	4.02	10	2.227	4907
58	224.41	3.98	10	2.203	4524
58	224.80	3.98	10	2.203	3964
58	225.36	4.57	10	2.508	2509
58	225.82	4.02	10	2.227	3930
58	226.38	3.86	10	2.156	5219
58	226.94	3.90	10	2.18	5084
58	227.40	3.82	10	2.133	4626
58	227.92	3.82	10	2.133	5070
58	228.44	3.82	10	2.133	5538
58	228.97	3.82	10	2.133	5004
58	229.46	3.86	10	2.156	4899
58	229.89	3.86	10	2.156	4938
58	230.51	3.78	10	2.109	4745
58	230.91	3.82	10	2.133	4845
58	231.36	3.86	10	2.156	4961
58	231.99	4.02	10	2.227	4835
58	232.41	4.09	10	2.273	4759
58	232.97	4.37	10	2.414	2928
59	0.16	4.65	12	2.555	2900
59	0.72	4.37	12	2.414	3883
59	1.31	4.17	12	2.32	5142
59	1.74	4.13	12	2.297	5109
59	2.30	4.13	12	2.297	5040
59	2.79	4.17	12	2.32	4595
59	3.25	4.13	12	2.297	5187
59	3.77	4.06	12	2.25	4825
59	4.27	4.09	12	2.273	4672
59	4.76	4.13	12	2.297	4854
59	5.31	4.09	12	2.273	4788
59	5.77	4.13	12	2.297	4854
59	6.30	4.13	12	2.297	4999
59	6.73	4.09	12	2.273	4700
59	7.28	4.13	12	2.297	4650
59	7.84	4.21	12	2.344	3611
59	8.30	4.72	12	2.602	2414
59	8.86	4.29	12	2.367	3639
59	9.32	4.29	12	2.367	4482
59	9.78	4.21	12	2.344	5105
59	10.20	4.17	12	2.32	5067
59	10.76	4.17	12	2.32	5077
59	11.22	4.21	12	2.344	4656
59	11.78	4.17	12	2.32	4567
59	12.34	4.13	12	2.297	4894
59	12.83	4.13	12	2.297	4528
59	13.29	4.09	12	2.273	4581
59	13.81	4.13	12	2.297	4127

59	14.24	4.17	12	2.32	3716
59	14.73	4.06	12	2.25	3286
59	15.26	3.98	12	2.203	3233
59	15.75	3.98	12	2.203	2667
59	16.27	4.33	12	2.391	606
59	16.80	4.02	12	2.227	1490
59	17.32	3.90	12	2.18	2503
59	17.81	3.78	12	2.109	2937
59	18.27	3.74	12	2.086	2133
59	18.83	3.78	12	2.109	2819
59	19.29	3.74	12	2.086	2512
59	19.82	3.62	12	2.039	3087
59	20.34	3.54	12	1.992	3729
59	20.80	3.58	12	2.016	3718
59	21.33	3.58	12	2.016	4210
59	21.78	3.58	12	2.016	4250
59	22.24	3.58	12	2.016	4512
59	22.80	3.58	12	2.016	5379
59	23.29	3.58	12	2.016	5454
59	23.79	3.74	12	2.086	4826
59	24.34	4.09	12	2.273	3510
59	24.84	3.78	12	2.109	4493
59	25.36	3.58	12	2.016	5396
59	25.89	3.58	12	2.016	6106
59	26.38	3.58	12	2.016	5695
59	26.87	3.58	12	2.016	5685
59	27.30	3.62	12	2.039	5652
59	27.79	3.62	12	2.039	5765
59	28.31	3.62	12	2.039	5629
59	28.87	3.70	12	2.063	6125
59	29.40	3.58	12	2.016	6084
59	29.92	3.62	12	2.039	5795
59	30.41	3.58	12	2.016	5316
59	30.97	3.62	12	2.039	5462
59	31.43	3.62	12	2.039	5457
59	31.89	3.58	12	2.016	4849
59	32.35	3.90	12	2.18	3865
59	32.91	3.54	12	1.992	5231
59	33.37	3.54	12	1.992	5278
59	33.96	3.54	12	1.992	5690
59	34.42	3.54	12	1.992	5239
59	34.94	3.54	12	1.992	5204
59	35.43	3.54	12	1.992	5397
59	35.93	3.58	12	2.016	5199
59	36.42	3.54	12	1.992	5347
59	36.94	3.62	12	2.039	5035
59	37.50	3.62	12	2.039	5254

59	38.02	3.62	12	2.039	5329
59	38.42	3.54	12	1.992	5018
59	38.98	3.50	12	1.969	5117
59	39.44	3.50	12	1.969	5486
59	39.99	3.54	12	1.992	5012
59	40.52	3.86	12	2.156	4200
59	41.01	3.50	12	1.969	4722
59	41.50	3.43	12	1.922	5422
59	41.96	3.35	12	1.898	5675
59	42.42	3.27	12	1.852	5754
59	42.95	3.31	12	1.875	5877
59	43.47	3.27	12	1.852	5329
59	43.90	3.31	12	1.875	5575
59	44.49	3.43	12	1.922	5750
59	44.98	3.35	12	1.898	5760
59	45.41	3.43	12	1.922	5750
59	46.00	3.43	12	1.922	5799
59	46.49	3.43	12	1.922	5390
59	46.98	3.43	12	1.922	5689
59	47.51	3.43	12	1.922	5282
59	48.00	3.46	12	1.945	4953
59	48.52	3.74	12	2.086	4255
59	48.95	3.43	12	1.922	5238
59	49.48	3.43	12	1.922	5833
59	50.00	3.27	12	1.852	5661
59	50.49	3.27	12	1.852	6142
59	50.95	3.27	12	1.852	6251
59	51.51	3.27	12	1.852	5965
59	52.00	3.31	12	1.875	5853
59	52.56	3.31	12	1.875	6405
59	53.02	3.27	12	1.852	6035
59	53.54	3.23	12	1.828	6210
59	54.00	3.23	12	1.828	6328
59	54.53	3.27	12	1.852	6121
59	55.05	3.27	12	1.852	5798
59	55.54	3.31	12	1.875	5679
59	56.07	3.50	12	1.969	5386
59	56.59	3.74	12	2.086	3950
59	57.09	3.50	12	1.969	4175
59	57.51	3.46	12	1.945	4324
59	57.97	3.46	12	1.945	4887
59	58.50	3.50	12	1.969	5605
59	59.06	3.35	12	1.898	5184
59	59.55	3.35	12	1.898	5453
59	59.58	3.35	12	1.898	5342
59	60.14	3.35	12	1.898	5197
59	60.53	3.31	12	1.875	5483

59	61.06	3.27	12	1.852	4284
59	61.52	3.27	12	1.852	4470
59	62.07	3.31	12	1.875	4577
59	62.57	3.31	12	1.875	4928
59	63.09	3.50	12	1.969	3970
59	63.62	3.50	12	1.969	3425
59	64.11	3.70	12	2.063	2833
59	64.47	3.98	12	2.203	1873
59	65.09	3.58	12	2.016	3736
59	65.55	3.50	12	1.969	4066
59	66.04	3.46	12	1.945	4171
59	66.50	3.43	12	1.922	4420
59	67.09	3.43	12	1.922	4727
59	67.52	3.46	12	1.945	4555
59	68.04	3.43	12	1.922	5153
59	68.57	3.35	12	1.898	5615
59	69.13	3.31	12	1.875	4941
59	69.62	3.31	12	1.875	4921
59	70.11	3.35	12	1.898	5070
59	70.51	3.43	12	1.922	5597
59	71.10	3.35	12	1.898	5305
59	71.62	3.50	12	1.969	5794
59	72.08	3.58	12	2.016	4846
59	72.64	3.98	12	2.203	3909
59	73.10	3.62	12	2.039	5023
59	73.56	3.62	12	2.039	5935
59	74.05	3.54	12	1.992	5366
59	74.64	3.62	12	2.039	5162
59	75.10	3.58	12	2.016	5636
59	75.66	3.54	12	1.992	5892
59	76.15	3.58	12	2.016	5618
59	76.54	3.54	12	1.992	5661
59	77.03	3.54	12	1.992	5799
59	77.59	3.54	12	1.992	5973
59	78.05	3.54	12	1.992	5878
59	78.61	3.50	12	1.969	6026
59	79.04	3.54	12	1.992	5384
59	79.56	3.50	12	1.969	5762
59	80.09	3.62	12	2.039	4855
59	80.54	3.98	12	2.203	4788
59	81.10	3.43	12	1.922	5297
59	81.59	3.35	12	1.898	5976
59	82.12	3.27	12	1.852	6208
59	82.61	3.27	12	1.852	6152
59	83.14	3.23	12	1.828	5977
59	83.56	3.19	12	1.805	3293
59	84.15	3.27	12	1.852	3312

59	84.74	3.19	12	1.805	3126
59	85.17	3.19	12	1.805	2959
59	85.60	3.19	12	1.805	2981
59	86.19	3.19	12	1.805	3090
59	86.65	3.23	12	1.828	3280
59	87.11	3.43	12	1.922	2650
59	87.57	3.11	12	1.781	3669
59	88.09	3.11	12	1.781	3893
59	88.58	3.19	12	1.805	3747
59	89.11	3.27	12	1.852	3632
59	89.60	3.19	12	1.805	3381
59	90.09	3.19	12	1.805	2868
59	90.68	3.23	12	1.828	3621
59	91.17	3.23	12	1.828	3133
59	91.63	3.23	12	1.828	3085
59	92.09	3.23	12	1.828	2651
59	92.65	3.27	12	1.852	3039
59	93.14	3.35	12	1.898	2944
59	93.57	3.35	12	1.898	2465
59	94.03	3.35	12	1.898	2702
59	94.62	3.35	12	1.898	2503
59	95.18	3.54	12	1.992	2729
59	95.60	3.31	12	1.875	3418
59	96.13	3.31	12	1.875	3248
59	96.65	3.31	12	1.875	4455
59	97.11	3.35	12	1.898	3243
59	97.67	3.35	12	1.898	4004
59	98.16	3.31	12	1.875	3533
59	98.69	3.35	12	1.898	3498
59	99.15	3.27	12	1.852	2037
59	99.67	3.31	12	1.875	3251
59	100.20	3.31	12	1.875	2641
59	100.72	3.31	12	1.875	2728
59	101.21	3.31	12	1.875	2644
59	101.74	3.31	12	1.875	2662
59	102.23	3.43	12	1.922	2243
59	102.66	3.35	12	1.898	2023
59	103.28	3.50	12	1.969	2548
59	103.74	3.31	12	1.875	2738
59	104.20	3.31	12	1.875	2914
59	104.79	3.43	12	1.922	3466
59	105.25	3.35	12	1.898	2979
59	105.64	3.43	12	1.922	3262
59	106.20	3.43	12	1.922	3951
59	106.76	3.31	12	1.875	4366
59	107.25	3.31	12	1.875	4734
59	107.74	3.27	12	1.852	5215

59	108.17	3.31	12	1.875	5644
59	108.73	3.35	12	1.898	5386
59	109.25	3.31	12	1.875	5673
59	109.78	3.35	12	1.898	4903
59	110.27	3.27	12	1.852	5382
59	110.76	3.43	12	1.922	4735
59	111.25	3.46	12	1.945	4773
59	111.81	3.35	12	1.898	5681
59	112.30	3.35	12	1.898	5623
59	112.76	3.43	12	1.922	5040
59	113.19	3.43	12	1.922	4582
59	113.75	3.35	12	1.898	4372
59	114.27	3.43	12	1.922	4514
59	114.76	3.35	12	1.898	4893
59	115.19	3.46	12	1.945	4454
59	115.78	3.46	12	1.945	4633
59	116.27	3.43	12	1.922	4581
59	116.73	3.35	12	1.898	5009
59	117.29	3.50	12	1.969	4129
59	117.78	3.46	12	1.945	4487
59	118.24	3.43	12	1.922	4643
59	118.73	3.58	12	2.016	3641
59	119.26	3.62	12	2.039	3778
59	119.75	3.50	12	1.969	4298
59	120.21	3.46	12	1.945	4839
59	120.70	3.46	12	1.945	4458
59	121.26	3.46	12	1.945	3738
59	121.78	3.46	12	1.945	4634
59	122.28	3.62	12	2.039	3259
59	122.77	3.50	12	1.969	3105
59	123.33	3.43	12	1.922	3675
59	123.82	3.50	12	1.969	3753
59	124.34	3.35	12	1.898	3719
59	124.84	3.50	12	1.969	2824
59	125.26	3.50	12	1.969	2805
59	125.75	3.50	12	1.969	2818
59	126.25	3.50	12	1.969	2776
59	126.80	3.74	12	2.086	2506
59	127.40	3.62	12	2.039	1956
59	127.79	3.58	12	2.016	2048
59	128.35	3.58	12	2.016	2862
59	128.87	3.54	12	1.992	2602
59	129.33	3.58	12	2.016	2599
59	129.86	3.54	12	1.992	2491
59	130.31	3.62	12	2.039	2766
59	130.84	3.62	12	2.039	2787
59	131.30	3.62	12	2.039	3184

59	131.79	3.78	12	2.109	3621
59	132.25	3.78	12	2.109	3891
59	132.81	3.78	12	2.109	3902
59	133.27	3.86	12	2.156	4252
59	133.76	3.82	12	2.133	3674
59	134.32	3.74	12	2.086	3064
59	134.84	3.82	12	2.133	2253
59	135.47	3.86	12	2.156	2768
59	135.86	3.98	12	2.203	2617
59	136.48	4.09	12	2.273	3262
59	136.94	4.06	12	2.25	2586
59	137.37	4.06	12	2.25	2587
59	137.86	4.13	12	2.297	3225
59	138.45	4.13	12	2.297	1256
59	138.91	3.78	12	2.109	1889
59	139.37	3.82	12	2.133	2966
59	139.90	3.90	12	2.18	2957
59	140.42	3.82	12	2.133	1774
59	140.91	3.78	12	2.109	1885
59	141.37	3.74	12	2.086	2498
59	141.90	3.70	12	2.063	2589
59	142.45	3.74	12	2.086	2677
59	142.95	3.82	12	2.133	1967
59	143.44	3.86	12	2.156	1878
59	143.90	3.82	12	2.133	2291
59	144.42	3.70	12	2.063	2203
59	144.91	3.62	12	2.039	2147
59	145.44	3.78	12	2.109	2230
59	145.87	3.78	12	2.109	2067
59	146.39	3.86	12	2.156	1902
59	146.98	3.82	12	2.133	2416
59	147.47	3.82	12	2.133	3320
59	148.06	3.86	12	2.156	3086
59	148.43	3.98	12	2.203	3133
59	148.88	3.82	12	2.133	3072
59	149.44	3.86	12	2.156	3467
59	149.93	3.86	12	2.156	3312
59	150.39	3.82	12	2.133	3588
59	150.92	3.86	12	2.156	3130
59	151.44	4.09	12	2.273	2402
59	151.90	3.82	12	2.133	2988
59	152.46	3.78	12	2.109	3208
59	153.02	3.74	12	2.086	3107
59	153.51	3.70	12	2.063	3376
59	154.07	3.78	12	2.109	3420
59	154.46	3.58	12	2.016	3314
59	155.05	3.74	12	2.086	3314

59	155.48	3.46	12	1.945	5583
59	155.87	3.46	12	1.945	5351
59	156.50	3.46	12	1.945	4981
59	157.02	3.62	12	2.039	4341
59	157.55	4.06	12	2.25	3625
59	157.97	3.74	12	2.086	4203
59	158.53	3.62	12	2.039	5113
59	158.99	3.70	12	2.063	5463
59	159.55	3.70	12	2.063	4915
59	160.04	3.78	12	2.109	5335
59	160.53	3.82	12	2.133	5400
59	161.06	3.78	12	2.109	5117
59	161.55	3.82	12	2.133	5100
59	162.04	3.82	12	2.133	5025
59	162.50	3.86	12	2.156	4994
59	163.02	3.86	12	2.156	4904
59	163.48	3.82	12	2.133	5345
59	163.94	3.86	12	2.156	4989
59	164.44	3.86	12	2.156	4850
59	164.99	4.06	12	2.25	4100
59	165.49	4.37	12	2.414	2929
59	165.94	4.13	12	2.297	3608
59	166.44	3.82	12	2.133	4461
59	166.44	3.82	12	2.133	4616
59	167.06	3.78	12	2.109	5311
59	167.52	3.74	12	2.086	5882
59	168.01	3.74	12	2.086	6159
59	168.50	3.74	12	2.086	5641
59	169.06	3.70	12	2.063	6002
59	169.62	3.58	12	2.016	6099
59	170.05	3.58	12	2.016	5925
59	170.57	3.62	12	2.039	5755
59	171.10	3.58	12	2.016	6010
59	171.56	3.62	12	2.039	5854
59	171.95	3.62	12	2.039	6066
59	172.60	3.74	12	2.086	5772
59	173.06	3.82	12	2.133	4957
59	173.49	4.21	12	2.344	3428
59	174.05	3.98	12	2.203	4391
59	174.61	3.78	12	2.109	5684
59	175.07	3.74	12	2.086	5831
59	175.62	3.74	12	2.086	5310
59	176.12	3.78	12	2.109	5702
59	176.51	3.74	12	2.086	5529
59	177.07	3.74	12	2.086	5706
59	177.46	3.74	12	2.086	5992
59	178.02	3.70	12	2.063	5387

59	178.54	3.62	12	2.039	5298
59	179.04	3.70	12	2.063	5057
59	179.63	3.62	12	2.039	5298
59	180.12	3.62	12	2.039	5206
59	180.54	3.62	12	2.039	4838
59	181.07	3.82	12	2.133	3911
59	181.56	4.13	12	2.297	2443
59	182.09	3.82	12	2.133	3899
59	182.51	3.78	12	2.109	4743
59	183.14	3.78	12	2.109	3774
59	183.60	3.78	12	2.109	4516
59	184.12	3.78	12	2.109	4284
59	184.61	3.78	12	2.109	4262
59	185.17	3.74	12	2.086	4840
59	185.60	3.78	12	2.109	4313
59	186.09	3.74	12	2.086	4143
59	186.68	3.78	12	2.109	4030
59	187.17	3.74	12	2.086	4219
59	187.60	3.70	12	2.063	3848
59	188.09	3.74	12	2.086	3521
59	188.62	3.82	12	2.133	2903
59	189.11	3.98	12	2.203	2069
59	189.57	4.37	12	2.414	1323
59	190.12	4.09	12	2.273	1952
59	190.65	3.98	12	2.203	2861
59	191.11	3.90	12	2.18	3081
59	191.60	3.82	12	2.133	3358
59	192.13	3.82	12	2.133	3484
59	192.59	3.82	12	2.133	3335
59	193.11	3.82	12	2.133	3341
59	193.11	3.82	12	2.133	3449
59	193.60	3.78	12	2.109	3845
59	194.13	3.82	12	2.133	3727
59	194.65	3.86	12	2.156	3759
59	195.14	3.86	12	2.156	4065
59	195.64	3.82	12	2.133	4403
59	196.13	3.82	12	2.133	4841
59	196.65	3.82	12	2.133	4540
59	197.15	3.98	12	2.203	4308
59	197.60	4.33	12	2.391	3532
59	198.16	4.06	12	2.25	4063
59	198.69	3.98	12	2.203	4770
59	199.15	3.98	12	2.203	4827
59	199.70	3.98	12	2.203	5294
59	200.16	3.98	12	2.203	4848
59	200.66	3.86	12	2.156	5144
59	201.12	3.90	12	2.18	5415

59	201.64	3.90	12	2.18	5476
59	202.20	3.98	12	2.203	4931
59	202.62	3.90	12	2.18	5460
59	203.12	3.98	12	2.203	5839
59	203.71	4.02	12	2.227	6111
59	204.23	4.02	12	2.227	5433
59	204.69	4.06	12	2.25	5642
59	205.18	4.13	12	2.297	4449
59	205.68	4.72	12	2.602	3163
59	206.20	4.29	12	2.367	4019
59	206.59	4.13	12	2.297	4759
59	207.12	4.09	12	2.273	5076
59	207.64	4.06	12	2.25	5099
59	208.17	4.09	12	2.273	5052
59	208.66	4.06	12	2.25	5076
59	209.19	4.06	12	2.25	5509
59	209.61	4.02	12	2.227	5064
59	210.20	4.02	12	2.227	5258
59	210.79	4.06	12	2.25	5155
59	211.29	4.06	12	2.25	5268
59	211.75	4.09	12	2.273	5490
59	212.27	4.09	12	2.273	5507
59	212.83	4.09	12	2.273	5309
59	213.25	4.21	12	2.344	4433
59	213.85	4.76	12	2.625	3204
59	214.37	4.21	12	2.344	4365
59	214.83	4.06	12	2.25	4945
59	215.22	4.06	12	2.25	5487
59	215.72	4.09	12	2.273	5056
59	216.27	4.06	12	2.25	5540
59	216.77	4.09	12	2.273	5260
59	217.22	4.13	12	2.297	5480
59	217.68	4.13	12	2.297	5213
59	218.24	4.09	12	2.273	4936
59	218.83	4.09	12	2.273	4077
59	219.26	4.09	12	2.273	4397
59	219.78	4.13	12	2.297	4478
59	220.28	4.21	12	2.344	4724
59	220.83	4.17	12	2.32	4342
59	221.23	4.17	12	2.32	3684
59	221.75	4.69	12	2.578	2474
59	222.31	4.17	12	2.32	3488
59	222.90	4.02	12	2.227	4717
59	223.36	4.02	12	2.227	4545
59	223.79	4.06	12	2.25	4885
59	224.34	3.98	12	2.203	4701
59	224.77	3.98	12	2.203	4093

59	225.30	4.02	12	2.227	4869
59	225.75	3.98	12	2.203	4572
59	226.28	3.98	12	2.203	4500
59	226.71	3.98	12	2.203	5132
59	227.20	3.98	12	2.203	5119
59	227.79	4.02	12	2.227	5061
59	228.31	4.06	12	2.25	5554
59	228.81	3.98	12	2.203	5559
59	229.33	4.17	12	2.32	4921
59	229.82	4.45	12	2.461	2629
59	230.35	4.21	12	2.344	3643
59	230.84	3.98	12	2.203	4830
59	231.30	4.09	12	2.273	5124
59	231.76	4.17	12	2.32	4612
59	232.28	4.17	12	2.32	4635
59	232.84	4.29	12	2.367	4456
59	233.33	4.33	12	2.391	4651
60	0.10	4.37	14	2.414	4610
60	0.62	4.29	14	2.367	4733
60	1.15	4.21	14	2.344	4657
60	1.61	4.17	14	2.32	4782
60	2.13	4.09	14	2.273	4866
60	2.62	3.86	14	2.156	4989
60	3.08	4.21	14	2.344	3807
60	3.64	4.41	14	2.438	2965
60	4.13	4.13	14	2.297	4539
60	4.66	4.06	14	2.25	5516
60	5.12	4.09	14	2.273	5100
60	5.12	4.09	14	2.273	5003
60	5.64	4.09	14	2.273	5105
60	6.17	4.06	14	2.25	5194
60	6.69	4.06	14	2.25	5267
60	7.12	4.06	14	2.25	5085
60	7.64	4.06	14	2.25	5517
60	7.68	4.06	14	2.25	5440
60	8.17	4.09	14	2.273	5760
60	8.60	4.17	14	2.32	5109
60	9.12	4.13	14	2.297	4727
60	9.65	4.09	14	2.273	4901
60	9.65	4.09	14	2.273	4956
60	10.10	4.17	14	2.32	5045
60	10.60	4.13	14	2.297	4500
60	11.15	4.33	14	2.391	4113
60	11.68	4.76	14	2.625	3598
60	12.24	4.21	14	2.344	4522
60	13.16	4.17	14	2.32	4652
60	13.68	4.17	14	2.32	4914

60	14.17	4.13	14	2.297	4526
60	14.67	4.13	14	2.297	4393
60	15.19	4.13	14	2.297	5543
60	15.75	4.21	14	2.344	5489
60	16.21	4.17	14	2.32	5257
60	16.70	4.13	14	2.297	4750
60	17.16	4.17	14	2.32	4839
60	17.72	4.21	14	2.344	4941
60	18.24	4.17	14	2.32	4888
60	18.64	4.21	14	2.344	4822
60	19.06	4.29	14	2.367	4573
60	19.59	4.69	14	2.578	3115
60	20.18	4.29	14	2.367	4055
60	20.64	4.13	14	2.297	5102
60	21.16	4.13	14	2.297	5181
60	21.69	4.09	14	2.273	5180
60	22.15	4.06	14	2.25	4993
60	22.64	4.09	14	2.273	4966
60	23.20	4.09	14	2.273	5001
60	23.82	4.06	14	2.25	4702
60	24.25	4.06	14	2.25	4802
60	24.77	4.02	14	2.227	4911
60	25.23	4.09	14	2.273	4904
60	25.79	4.09	14	2.273	4560
60	26.28	4.13	14	2.297	4308
60	26.84	4.13	14	2.297	4431
60	27.26	4.33	14	2.391	3671
60	27.76	4.65	14	2.555	3192
60	28.28	4.17	14	2.32	3939
60	28.77	4.13	14	2.297	4672
60	29.20	4.06	14	2.25	5037
60	29.76	4.06	14	2.25	4806
60	30.35	4.02	14	2.227	4860
60	30.77	4.02	14	2.227	5036
60	31.27	4.02	14	2.227	4843
60	31.82	4.02	14	2.227	4897
60	32.28	3.98	14	2.203	5107
60	32.84	4.02	14	2.227	5010
60	33.27	4.02	14	2.227	4694
60	33.76	3.98	14	2.203	4576
60	34.28	3.98	14	2.203	4859
60	34.78	3.98	14	2.203	5021
60	35.30	4.06	14	2.25	4003
60	35.86	4.33	14	2.391	3100
60	36.29	3.98	14	2.203	4052
60	36.78	3.98	14	2.203	4555
60	37.30	3.98	14	2.203	5040

60	37.80	3.90	14	2.18	4681
60	38.29	3.98	14	2.203	4824
60	38.32	3.98	14	2.203	4757
60	38.78	3.86	14	2.156	4716
60	39.30	3.86	14	2.156	5192
60	39.34	3.86	14	2.156	5328
60	39.83	3.82	14	2.133	5180
60	40.32	3.90	14	2.18	4980
60	40.85	3.90	14	2.18	5129
60	41.31	3.90	14	2.18	5179
60	41.80	3.98	14	2.203	4773
60	42.32	3.90	14	2.18	5116
60	42.81	3.98	14	2.203	4903
60	43.31	4.09	14	2.273	4016
60	43.90	4.33	14	2.391	3231
60	44.39	4.06	14	2.25	4542
60	44.82	4.02	14	2.227	4805
60	45.34	3.90	14	2.18	4904
60	45.83	3.82	14	2.133	5075
60	46.29	3.78	14	2.109	4912
60	46.78	3.82	14	2.133	5617
60	47.38	3.82	14	2.133	5051
60	47.83	3.82	14	2.133	5352
60	48.29	3.82	14	2.133	5471
60	48.85	3.78	14	2.109	4845
60	48.85	3.78	14	2.109	4931
60	49.38	3.78	14	2.109	4892
60	49.84	3.78	14	2.109	4823
60	50.33	3.82	14	2.133	4790
60	50.92	3.78	14	2.109	4984
60	51.38	3.86	14	2.156	4669
60	51.94	4.09	14	2.273	3212
60	52.36	3.78	14	2.109	4427
60	52.89	3.70	14	2.063	4974
60	53.35	3.70	14	2.063	4961
60	53.84	3.70	14	2.063	4810
60	54.36	3.70	14	2.063	5257
60	54.40	3.70	14	2.063	5448
60	54.92	3.70	14	2.063	5313
60	55.41	3.70	14	2.063	5549
60	55.94	3.62	14	2.039	5408
60	56.43	3.70	14	2.063	5242
60	56.92	3.70	14	2.063	5250
60	57.35	3.70	14	2.063	5131
60	57.84	3.74	14	2.086	5516
60	58.40	3.70	14	2.063	5239
60	58.89	3.82	14	2.133	4965

60	59.45	3.90	14	2.18	4097
60	59.94	4.17	14	2.32	3221
60	60.40	3.78	14	2.109	4883
60	60.89	3.70	14	2.063	5186
60	61.52	3.58	14	2.016	5437
60	61.91	3.54	14	1.992	5625
60	62.37	3.54	14	1.992	4897
60	62.89	3.54	14	1.992	5303
60	63.42	3.58	14	2.016	5417
60	63.88	3.54	14	1.992	5148
60	64.44	3.62	14	2.039	5051
60	64.96	3.62	14	2.039	5295
60	65.42	3.70	14	2.063	5034
60	65.98	3.78	14	2.109	5380
60	66.40	3.78	14	2.109	5493
60	67.03	3.86	14	2.156	4818
60	67.52	4.09	14	2.273	3781
60	68.01	4.37	14	2.414	3052
60	68.47	3.82	14	2.133	4544
60	69.03	3.78	14	2.109	5318
60	69.52	3.78	14	2.109	5076
60	69.98	3.78	14	2.109	5251
60	70.44	3.74	14	2.086	5046
60	70.96	3.74	14	2.086	5115
60	71.39	3.78	14	2.109	5190
60	71.92	3.70	14	2.063	4928
60	72.41	3.70	14	2.063	5356
60	72.93	3.62	14	2.039	5435
60	73.43	3.58	14	2.016	4910
60	73.88	3.58	14	2.016	5484
60	74.48	3.62	14	2.039	4878
60	74.90	3.54	14	1.992	4440
60	75.49	3.62	14	2.039	4423
60	75.92	3.98	14	2.203	3619
60	76.44	3.50	14	1.969	4436
60	76.97	3.31	14	1.875	5455
60	77.53	3.43	14	1.922	5358
60	77.95	3.43	14	1.922	5251
60	78.41	3.62	14	2.039	4140
60	78.94	3.58	14	2.016	3390
60	79.43	3.62	14	2.039	3250
60	79.95	3.70	14	2.063	3939
60	80.48	3.78	14	2.109	3393
60	81.00	3.70	14	2.063	3590
60	81.56	3.70	14	2.063	3366
60	82.02	3.86	14	2.156	2853
60	82.55	3.86	14	2.156	2493

60	83.07	3.78	14	2.109	3208
60	83.53	3.74	14	2.086	3447
60	83.99	3.74	14	2.086	3208
60	84.51	3.62	14	2.039	3682
60	85.04	3.74	14	2.086	2635
60	85.47	3.74	14	2.086	2923
60	86.02	3.74	14	2.086	3478
60	86.52	3.78	14	2.109	4005
60	87.01	3.86	14	2.156	2393
60	87.60	3.82	14	2.133	2945
60	88.06	3.86	14	2.156	2479
60	88.55	3.78	14	2.109	2726
60	89.04	3.78	14	2.109	2898
60	89.57	3.82	14	2.133	2413
60	89.99	4.02	14	2.227	2051
60	90.58	3.98	14	2.203	2155
60	91.04	3.82	14	2.133	2759
60	91.57	3.78	14	2.109	2284
60	92.16	3.90	14	2.18	1718
60	92.55	3.82	14	2.133	1614
60	93.08	3.86	14	2.156	2086
60	93.54	3.90	14	2.18	1896
60	94.09	3.78	14	2.109	2269
60	94.55	3.74	14	2.086	2290
60	95.11	3.74	14	2.086	870
60	95.60	3.74	14	2.086	1839
60	96.10	3.74	14	2.086	1936
60	96.59	3.62	14	2.039	2187
60	97.01	3.62	14	2.039	2038
60	97.60	3.78	14	2.109	1449
60	98.00	3.74	14	2.086	1191
60	98.65	3.54	14	1.992	2168
60	99.15	3.50	14	1.969	1793
60	99.70	3.50	14	1.969	2203
60	100.16	3.46	14	1.945	2302
60	100.66	3.54	14	1.992	2751
60	101.21	3.43	14	1.922	2400
60	101.71	3.46	14	1.945	2462
60	102.13	3.35	14	1.898	2777
60	102.66	3.43	14	1.922	2847
60	103.15	3.35	14	1.898	2957
60	103.64	3.31	14	1.875	2963
60	104.13	3.31	14	1.875	3386
60	104.63	3.31	14	1.875	3148
60	105.15	3.31	14	1.875	3354
60	105.68	3.27	14	1.852	3170
60	106.14	3.43	14	1.922	2899

60	106.63	3.43	14	1.922	2794
60	107.15	3.35	14	1.898	3066
60	107.68	3.35	14	1.898	3494
60	108.17	3.31	14	1.875	3253
60	108.63	3.43	14	1.922	3359
60	109.09	3.46	14	1.945	2887
60	109.65	3.35	14	1.898	2911
60	110.10	3.46	14	1.945	3286
60	110.66	3.58	14	2.016	2293
60	111.19	3.58	14	2.016	2238
60	111.68	3.58	14	2.016	2661
60	112.20	3.50	14	1.969	2782
60	112.76	3.54	14	1.992	2520
60	113.68	3.62	14	2.039	2480
60	114.21	3.78	14	2.109	1768
60	114.70	3.74	14	2.086	1975
60	115.19	3.70	14	2.063	2546
60	115.68	3.70	14	2.063	1630
60	116.17	3.70	14	2.063	2076
60	116.73	3.58	14	2.016	2458
60	117.19	3.74	14	2.086	2171
60	117.68	3.74	14	2.086	2186
60	118.21	3.74	14	2.086	2324
60	118.73	3.58	14	2.016	2440
60	119.19	3.62	14	2.039	2938
60	119.72	3.62	14	2.039	2815
60	120.28	3.70	14	2.063	2526
60	120.67	3.62	14	2.039	2192
60	121.16	3.70	14	2.063	3624
60	121.65	3.62	14	2.039	2791
60	122.18	3.78	14	2.109	2697
60	122.74	3.58	14	2.016	2912
60	123.23	3.58	14	2.016	3229
60	123.75	3.62	14	2.039	2691
60	124.21	3.58	14	2.016	3159
60	124.21	3.58	14	2.016	3158
60	124.74	3.54	14	1.992	3243
60	125.26	3.62	14	2.039	3551
60	125.75	3.58	14	2.016	2826
60	126.25	3.54	14	1.992	3072
60	126.74	3.54	14	1.992	3379
60	127.23	3.62	14	2.039	3180
60	127.79	3.54	14	1.992	3776
60	128.22	3.58	14	2.016	3027
60	128.77	3.62	14	2.039	3472
60	129.27	3.54	14	1.992	3125
60	130.22	3.62	14	2.039	2567

60	130.87	3.58	14	2.016	3855
60	131.23	3.78	14	2.109	4894
60	131.79	3.74	14	2.086	5387
60	132.25	3.70	14	2.063	4870
60	132.81	3.70	14	2.063	4910
60	133.37	3.74	14	2.086	4141
60	133.83	3.35	14	1.898	2687
60	134.35	3.35	14	1.898	3075
60	134.88	3.35	14	1.898	3148
60	135.37	3.35	14	1.898	2840
60	135.86	3.27	14	1.852	2342
60	136.35	3.31	14	1.875	2651
60	136.88	3.23	14	1.828	3075
60	137.43	3.23	14	1.828	3052
60	137.89	3.19	14	1.805	2967
60	138.39	3.31	14	1.875	2148
60	138.88	3.19	14	1.805	3608
60	139.44	3.11	14	1.781	4368
60	139.90	3.27	14	1.852	3283
60	140.35	3.23	14	1.828	4973
60	140.81	3.11	14	1.781	4442
60	141.34	3.19	14	1.805	4770
60	141.83	3.19	14	1.805	4858
60	142.26	3.23	14	1.828	4601
60	142.78	3.23	14	1.828	4291
60	143.41	3.31	14	1.875	3029
60	143.83	3.19	14	1.805	3324
60	144.36	3.23	14	1.828	3444
60	144.91	3.23	14	1.828	3323
60	145.34	3.31	14	1.875	3483
60	145.93	3.19	14	1.805	2517
60	146.36	3.46	14	1.945	1741
60	146.82	3.43	14	1.922	3040
60	147.28	3.31	14	1.875	3099
60	147.90	3.31	14	1.875	3112
60	148.33	3.23	14	1.828	2545
60	148.79	3.31	14	1.875	2689
60	149.34	3.31	14	1.875	2565
60	149.90	3.27	14	1.852	2879
60	150.36	3.23	14	1.828	4788
60	150.85	3.27	14	1.852	5888
60	151.38	3.31	14	1.875	5496
60	151.87	3.31	14	1.875	5599
60	152.40	3.35	14	1.898	5276
60	152.92	3.86	14	2.156	4177
60	153.41	3.54	14	1.992	4766
60	153.94	3.46	14	1.945	5135

60	154.43	3.50	14	1.969	5284
60	154.86	3.54	14	1.992	5277
60	155.41	3.54	14	1.992	5692
60	155.94	3.62	14	2.039	5493
60	156.43	3.50	14	1.969	5526
60	156.46	3.50	14	1.969	5493
60	156.96	3.54	14	1.992	5314
60	157.35	3.54	14	1.992	5165
60	157.84	3.58	14	2.016	5242
60	158.40	3.54	14	1.992	4957
60	158.86	3.54	14	1.992	5309
60	159.42	3.54	14	1.992	5432
60	159.88	3.54	14	1.992	5101
60	160.40	3.54	14	1.992	4868
60	160.89	3.90	14	2.18	3654
60	161.38	3.54	14	1.992	4885
60	161.88	3.46	14	1.945	5018
60	162.43	3.46	14	1.945	5416
60	162.96	3.35	14	1.898	5510
60	163.39	3.35	14	1.898	5426
60	163.91	3.31	14	1.875	5142
60	164.40	3.31	14	1.875	5962
60	164.93	3.35	14	1.898	5620
60	165.45	3.46	14	1.945	5359
60	165.94	3.43	14	1.922	5302
60	166.44	3.50	14	1.969	5573
60	166.96	3.46	14	1.945	5527
60	167.45	3.58	14	2.016	5232
60	167.91	3.54	14	1.992	5777
60	168.44	3.62	14	2.039	4423
60	169.00	3.90	14	2.18	3402
60	169.39	3.58	14	2.016	4538
60	169.85	3.50	14	1.969	5412
60	170.41	3.46	14	1.945	5646
60	170.90	3.43	14	1.922	5956
60	171.42	3.35	14	1.898	6075
60	171.98	3.43	14	1.922	5846
60	172.41	3.43	14	1.922	6519
60	172.97	3.35	14	1.898	5510
60	173.36	3.46	14	1.945	5502
60	173.92	3.46	14	1.945	5775
60	174.41	3.50	14	1.969	5731
60	175.00	3.46	14	1.945	5749
60	175.52	3.43	14	1.922	5908
60	175.98	3.43	14	1.922	5346
60	176.44	3.50	14	1.969	4721
60	176.94	3.70	14	2.063	3791

60	177.40	3.35	14	1.898	4786
60	177.95	3.31	14	1.875	5185
60	178.41	3.31	14	1.875	5596
60	178.97	3.23	14	1.828	6030
60	179.53	3.23	14	1.828	5834
60	179.95	3.23	14	1.828	5125
60	180.45	3.31	14	1.875	5722
60	180.48	3.31	14	1.875	5587
60	180.94	3.31	14	1.875	5889
60	181.50	3.19	14	1.805	5368
60	181.99	3.23	14	1.828	5631
60	182.58	3.31	14	1.875	5462
60	183.04	3.23	14	1.828	5522
60	183.50	3.27	14	1.852	5429
60	184.02	3.31	14	1.875	5582
60	184.51	3.31	14	1.875	4856
60	185.01	3.74	14	2.086	4046
60	185.50	3.35	14	1.898	5221
60	185.99	3.31	14	1.875	5291
60	186.55	3.35	14	1.898	4973
60	187.04	3.35	14	1.898	4766
60	187.50	3.31	14	1.875	5413
60	188.06	3.31	14	1.875	5639
60	188.55	3.27	14	1.852	5386
60	189.01	3.31	14	1.875	5490
60	189.60	3.35	14	1.898	5382
60	190.03	3.35	14	1.898	5374
60	190.58	3.31	14	1.875	5406
60	191.08	3.43	14	1.922	5358
60	191.60	3.43	14	1.922	5325
60	192.03	3.35	14	1.898	5391
60	192.55	3.46	14	1.945	4928
60	193.01	3.78	14	2.109	4004
60	193.54	3.43	14	1.922	5337
60	194.09	3.46	14	1.945	5598
60	194.55	3.50	14	1.969	5612
60	195.11	3.46	14	1.945	5397
60	195.54	3.46	14	1.945	5074
60	196.06	3.43	14	1.922	5118
60	196.56	3.50	14	1.969	5338
60	197.15	3.46	14	1.945	5317
60	197.60	3.50	14	1.969	5272
60	198.10	3.50	14	1.969	5276
60	198.56	3.50	14	1.969	5767
60	199.11	3.50	14	1.969	5521
60	199.57	3.46	14	1.945	5979
60	200.13	3.46	14	1.945	5355

60	200.62	3.54	14	1.992	5435
60	201.18	3.90	14	2.18	4454
60	201.64	3.54	14	1.992	5268
60	202.10	3.54	14	1.992	5262
60	202.56	3.54	14	1.992	5926
60	203.12	3.58	14	2.016	5996
60	203.61	3.58	14	2.016	5366
60	204.13	3.54	14	1.992	5839
60	204.69	3.54	14	1.992	4950
60	205.22	3.58	14	2.016	5573
60	205.74	3.58	14	2.016	5013
60	206.23	3.62	14	2.039	6019
60	206.66	3.62	14	2.039	5632
60	207.12	3.62	14	2.039	5302
60	207.68	3.62	14	2.039	5341
60	208.17	3.70	14	2.063	5249
60	208.66	3.70	14	2.063	4729
60	209.15	4.02	14	2.227	3726
60	209.71	3.58	14	2.016	4695
60	210.20	3.54	14	1.992	4979
60	210.73	3.54	14	1.992	5147
60	211.22	3.50	14	1.969	4914
60	211.71	3.54	14	1.992	5130
60	212.20	3.50	14	1.969	4739
60	212.76	3.54	14	1.992	5097
60	213.19	3.58	14	2.016	5020
60	213.71	3.58	14	2.016	4975
60	214.21	3.74	14	2.086	4812
60	214.70	3.74	14	2.086	4642
60	215.22	3.82	14	2.133	4858
60	215.72	3.78	14	2.109	4931
60	216.21	3.82	14	2.133	4797
60	216.73	4.06	14	2.25	4062
60	217.29	4.37	14	2.414	3068
60	217.78	4.06	14	2.25	4489
60	218.31	4.06	14	2.25	4438
60	218.86	4.06	14	2.25	4107
60	219.32	4.02	14	2.227	4433
60	219.75	4.02	14	2.227	4489
60	220.24	4.06	14	2.25	4303
60	220.73	4.13	14	2.297	4019
60	221.23	4.17	14	2.32	4440
60	221.75	4.21	14	2.344	4056
60	222.31	4.13	14	2.297	4209
60	222.83	4.13	14	2.297	4248
60	223.33	4.09	14	2.273	4456
60	223.82	4.09	14	2.273	4323

60	224.28	4.13	14	2.297	4112
60	224.70	4.17	14	2.32	3778
60	225.26	4.65	14	2.555	2467
60	225.72	4.17	14	2.32	3786
60	226.25	4.09	14	2.273	4139
60	226.80	4.09	14	2.273	4171
60	227.30	4.06	14	2.25	4504
60	227.76	4.06	14	2.25	4479
60	228.31	4.13	14	2.297	4461
60	228.84	4.02	14	2.227	4579
60	229.33	4.06	14	2.25	4743
60	229.79	4.06	14	2.25	4480
60	230.35	4.13	14	2.297	4957
60	230.74	4.06	14	2.25	4687
60	231.23	4.09	14	2.273	4343
60	231.82	4.13	14	2.297	4414
60	232.28	4.09	14	2.273	4449
60	232.84	4.17	14	2.32	3785
61	0.36	4.69	16	2.578	2736
61	0.85	4.13	16	2.297	3454
61	1.41	4.02	16	2.227	5007
61	1.87	4.02	16	2.227	5008
61	2.40	3.90	16	2.18	4845
61	2.89	4.02	16	2.227	4822
61	3.31	3.98	16	2.203	5343
61	3.84	3.90	16	2.18	5171
61	4.33	3.98	16	2.203	5050
61	4.79	3.90	16	2.18	4756
61	5.31	3.90	16	2.18	5037
61	5.87	4.02	16	2.227	4501
61	6.36	3.98	16	2.203	4837
61	6.86	4.02	16	2.227	4716
61	7.38	3.98	16	2.203	4767
61	7.91	4.09	16	2.273	3980
61	8.37	4.45	16	2.461	3028
61	8.92	4.09	16	2.273	4066
61	9.35	4.06	16	2.25	4458
61	9.81	4.06	16	2.25	4680
61	10.30	4.09	16	2.273	4953
61	10.83	3.98	16	2.203	4675
61	11.35	3.98	16	2.203	4582
61	11.91	3.98	16	2.203	4691
61	12.47	3.90	16	2.18	5237
61	12.93	3.90	16	2.18	5147
61	13.39	3.98	16	2.203	4593
61	13.91	3.98	16	2.203	4859
61	14.34	3.98	16	2.203	4958

61	14.86	3.98	16	2.203	4968
61	15.32	3.98	16	2.203	4608
61	15.85	3.98	16	2.203	4511
61	16.34	4.29	16	2.367	3028
61	16.90	4.02	16	2.227	4221
61	17.42	3.90	16	2.18	5074
61	17.91	3.86	16	2.156	5107
61	18.41	3.78	16	2.109	4839
61	18.96	3.74	16	2.086	4984
61	19.39	3.62	16	2.039	5359
61	19.85	3.62	16	2.039	5306
61	20.37	3.58	16	2.016	5585
61	20.87	3.50	16	1.969	5339
61	21.42	3.50	16	1.969	5281
61	21.88	3.54	16	1.992	4892
61	22.41	3.46	16	1.945	5725
61	22.90	3.46	16	1.945	5557
61	23.43	3.54	16	1.992	5365
61	23.92	3.58	16	2.016	4791
61	24.44	4.06	16	2.25	3429
61	25.00	3.62	16	2.039	4773
61	25.49	3.58	16	2.016	4810
61	25.95	3.62	16	2.039	5446
61	26.54	3.58	16	2.016	5398
61	27.00	3.54	16	1.992	5338
61	27.46	3.54	16	1.992	5118
61	27.92	3.50	16	1.969	5214
61	28.44	3.50	16	1.969	5335
61	28.94	3.54	16	1.992	5537
61	29.46	3.54	16	1.992	5151
61	30.02	3.50	16	1.969	5177
61	30.54	3.54	16	1.992	6139
61	31.07	3.58	16	2.016	5706
61	31.53	3.50	16	1.969	5585
61	31.99	3.58	16	2.016	4954
61	32.48	4.02	16	2.227	3604
61	33.01	3.58	16	2.016	5141
61	33.53	3.50	16	1.969	5687
61	34.06	3.46	16	1.945	5593
61	34.51	3.46	16	1.945	5270
61	35.07	3.46	16	1.945	5752
61	35.53	3.46	16	1.945	5948
61	36.09	3.46	16	1.945	5540
61	36.55	3.46	16	1.945	5256
61	37.11	3.46	16	1.945	5503
61	37.60	3.46	16	1.945	5841
61	38.12	3.46	16	1.945	5514

61	38.55	3.46	16	1.945	5265
61	39.07	3.46	16	1.945	5503
61	39.53	3.46	16	1.945	5529
61	40.09	3.50	16	1.969	5048
61	40.65	4.02	16	2.227	3123
61	41.14	3.54	16	1.992	4785
61	41.60	3.46	16	1.945	5464
61	42.09	3.50	16	1.969	5131
61	42.59	3.46	16	1.945	5638
61	43.14	3.46	16	1.945	5429
61	43.64	3.46	16	1.945	5788
61	44.09	3.46	16	1.945	5267
61	44.65	3.46	16	1.945	5600
61	45.08	3.46	16	1.945	5597
61	45.60	3.46	16	1.945	5408
61	46.16	3.50	16	1.969	5537
61	46.59	3.46	16	1.945	4895
61	47.08	3.46	16	1.945	5388
61	47.64	3.46	16	1.945	5490
61	47.67	3.46	16	1.945	5442
61	48.13	3.50	16	1.969	4828
61	48.62	3.82	16	2.133	3776
61	49.11	3.46	16	1.945	4486
61	49.67	3.46	16	1.945	5312
61	50.16	3.35	16	1.898	5296
61	50.62	3.31	16	1.875	5763
61	51.05	3.35	16	1.898	5089
61	51.64	3.31	16	1.875	5468
61	52.13	3.35	16	1.898	5738
61	52.62	3.35	16	1.898	6003
61	53.12	3.31	16	1.875	5984
61	53.64	3.31	16	1.875	5638
61	54.10	3.31	16	1.875	6305
61	54.63	3.27	16	1.852	5903
61	55.15	3.31	16	1.875	6201
61	55.64	3.31	16	1.875	5592
61	56.17	3.46	16	1.945	4757
61	56.66	3.86	16	2.156	3785
61	57.15	3.74	16	2.086	4562
61	57.61	3.54	16	1.992	5491
61	58.07	3.50	16	1.969	5545
61	58.60	3.54	16	1.992	5881
61	59.15	3.50	16	1.969	5584
61	59.68	3.50	16	1.969	5330
61	60.17	3.50	16	1.969	5640
61	60.60	3.50	16	1.969	4789
61	61.15	3.50	16	1.969	5600

61	61.61	3.46	16	1.945	5599
61	62.14	3.58	16	2.016	5441
61	62.66	3.50	16	1.969	5123
61	63.22	3.58	16	2.016	5324
61	63.75	3.50	16	1.969	5104
61	64.17	3.70	16	2.063	4011
61	64.63	4.02	16	2.227	2859
61	65.19	3.58	16	2.016	4426
61	65.72	3.54	16	1.992	5377
61	66.21	3.46	16	1.945	5636
61	66.63	3.46	16	1.945	5134
61	66.67	3.46	16	1.945	5163
61	67.16	3.35	16	1.898	5517
61	67.68	3.43	16	1.922	5410
61	68.21	3.35	16	1.898	5277
61	68.70	3.31	16	1.875	5223
61	69.23	3.31	16	1.875	5285
61	69.75	3.31	16	1.875	5520
61	70.24	3.27	16	1.852	5613
61	70.70	3.46	16	1.945	5387
61	71.26	3.54	16	1.992	5352
61	71.75	3.50	16	1.969	5065
61	72.28	3.58	16	2.016	4487
61	72.77	4.02	16	2.227	3557
61	73.26	3.54	16	1.992	4811
61	73.72	3.46	16	1.945	5197
61	74.21	3.46	16	1.945	5448
61	74.74	3.46	16	1.945	5530
61	75.23	3.58	16	2.016	5241
61	75.79	3.46	16	1.945	5575
61	76.28	3.46	16	1.945	5682
61	76.71	3.46	16	1.945	5289
61	77.23	3.50	16	1.969	5202
61	77.72	3.46	16	1.945	5661
61	78.25	3.50	16	1.969	5652
61	78.77	3.46	16	1.945	5339
61	79.27	3.46	16	1.945	5746
61	79.72	3.50	16	1.969	5654
61	80.22	3.50	16	1.969	4682
61	80.74	3.90	16	2.18	3795
61	81.23	3.46	16	1.945	5656
61	81.79	3.35	16	1.898	5842
61	82.25	3.23	16	1.828	5749
61	82.81	3.27	16	1.852	5799
61	83.23	3.23	16	1.828	4604
61	83.76	3.31	16	1.875	3324
61	84.28	3.43	16	1.922	3663

61	84.88	3.27	16	1.852	2419
61	85.27	3.27	16	1.852	2978
61	85.76	3.31	16	1.875	3325
61	86.32	3.27	16	1.852	2745
61	86.78	3.35	16	1.898	3136
61	87.30	3.54	16	1.992	2746
61	87.73	3.35	16	1.898	3224
61	88.25	3.43	16	1.922	3400
61	88.68	3.31	16	1.875	3410
61	89.24	3.43	16	1.922	3504
61	89.27	3.46	16	1.945	3435
61	89.76	3.31	16	1.875	3475
61	90.26	3.31	16	1.875	2658
61	90.81	3.27	16	1.852	2856
61	91.31	3.27	16	1.852	3089
61	91.77	3.23	16	1.828	3981
61	92.29	3.27	16	1.852	4528
61	92.81	3.27	16	1.852	4596
61	93.31	3.27	16	1.852	5044
61	93.80	3.19	16	1.805	5120
61	94.23	3.23	16	1.828	4664
61	94.78	3.23	16	1.828	5464
61	95.28	3.46	16	1.945	4498
61	95.31	3.35	16	1.898	4519
61	95.77	3.11	16	1.781	5997
61	96.23	3.11	16	1.781	6110
61	96.78	3.07	16	1.758	6018
61	97.24	3.07	16	1.758	6719
61	97.80	3.11	16	1.781	6513
61	98.33	3.07	16	1.758	6368
61	98.82	3.11	16	1.781	6672
61	99.28	3.07	16	1.758	6441
61	99.84	3.03	16	1.734	5031
61	100.33	3.03	16	1.734	3951
61	100.89	3.07	16	1.758	4152
61	101.35	3.07	16	1.758	4182
61	101.87	3.19	16	1.805	4350
61	102.36	3.19	16	1.805	4847
61	102.79	3.27	16	1.852	4232
61	103.41	3.31	16	1.875	3931
61	103.87	3.19	16	1.805	4632
61	104.36	3.11	16	1.781	5346
61	104.89	3.19	16	1.805	5640
61	105.35	3.07	16	1.758	5816
61	105.87	3.11	16	1.781	6059
61	106.40	3.19	16	1.805	5760
61	106.89	3.11	16	1.781	5898

61	107.45	3.11	16	1.781	6007
61	107.87	3.23	16	1.828	5259
61	108.37	3.11	16	1.781	4285
61	108.92	3.19	16	1.805	4299
61	109.42	3.27	16	1.852	3291
61	109.94	3.43	16	1.922	2683
61	110.40	3.43	16	1.922	2249
61	110.93	3.62	16	2.039	2683
61	111.48	3.82	16	2.133	2386
61	111.91	3.62	16	2.039	1922
61	112.50	3.62	16	2.039	2824
61	112.96	3.70	16	2.063	3217
61	113.39	3.70	16	2.063	3715
61	113.91	3.62	16	2.039	3907
61	114.44	3.70	16	2.063	3744
61	114.96	3.70	16	2.063	3953
61	115.39	3.74	16	2.086	3022
61	115.98	3.78	16	2.109	3651
61	116.47	3.78	16	2.109	3434
61	116.93	3.78	16	2.109	4007
61	117.45	3.82	16	2.133	3549
61	117.91	3.82	16	2.133	3431
61	118.47	3.86	16	2.156	3984
61	118.90	3.98	16	2.203	2639
61	119.46	4.06	16	2.25	2716
61	119.95	3.86	16	2.156	2823
61	120.44	3.82	16	2.133	2757
61	120.87	3.74	16	2.086	2672
61	121.46	3.70	16	2.063	2834
61	121.92	3.58	16	2.016	2988
61	122.44	3.62	16	2.039	2618
61	123.03	3.90	16	2.18	2135
61	123.56	3.58	16	2.016	2750
61	123.98	3.46	16	1.945	2774
61	124.54	3.43	16	1.922	2490
61	125.03	3.27	16	1.852	2827
61	125.46	3.23	16	1.828	2548
61	125.92	3.27	16	1.852	3074
61	126.48	3.31	16	1.875	3088
61	126.97	3.46	16	1.945	2929
61	127.53	3.46	16	1.945	2750
61	127.95	3.27	16	1.852	3704
61	128.51	3.23	16	1.828	4078
61	129.00	3.23	16	1.828	4079
61	129.49	3.27	16	1.852	4272
61	130.02	3.23	16	1.828	3967
61	130.48	3.27	16	1.852	4397

61	131.04	3.27	16	1.852	4240
61	131.50	3.31	16	1.875	4396
61	132.02	3.35	16	1.898	3330
61	132.45	3.46	16	1.945	2406
61	133.01	3.46	16	1.945	3669
61	133.46	3.43	16	1.922	3529
61	133.96	3.46	16	1.945	3436
61	134.51	3.46	16	1.945	2692
61	135.01	3.43	16	1.922	3759
61	135.63	3.50	16	1.969	3095
61	136.09	3.70	16	2.063	2843
61	136.58	3.27	16	1.852	3756
61	137.04	3.31	16	1.875	4202
61	137.53	3.35	16	1.898	4076
61	138.09	3.35	16	1.898	3680
61	138.62	3.43	16	1.922	4011
61	139.11	3.50	16	1.969	6065
61	139.57	3.50	16	1.969	5800
61	140.06	3.54	16	1.992	5378
61	140.58	3.54	16	1.992	5421
61	141.08	3.54	16	1.992	4840
61	141.57	3.62	16	2.039	4517
61	142.09	3.54	16	1.992	4699
61	142.62	3.54	16	1.992	4577
61	143.11	3.58	16	2.016	3372
61	143.60	3.74	16	2.086	2874
61	144.09	3.46	16	1.945	3926
61	144.62	3.46	16	1.945	4431
61	145.14	3.50	16	1.969	3725
61	145.67	3.46	16	1.945	4085
61	146.10	3.43	16	1.922	4693
61	146.62	3.46	16	1.945	3660
61	147.15	3.43	16	1.922	3768
61	147.64	3.46	16	1.945	3173
61	148.20	3.43	16	1.922	2419
61	148.62	3.46	16	1.945	2926
61	149.08	3.35	16	1.898	3007
61	149.64	3.35	16	1.898	2725
61	150.13	3.46	16	1.945	2634
61	150.62	3.35	16	1.898	2945
61	151.15	3.46	16	1.945	2342
61	151.67	3.62	16	2.039	1887
61	152.13	3.46	16	1.945	2576
61	152.69	3.50	16	1.969	2337
61	153.18	3.50	16	1.969	1605
61	153.71	3.46	16	1.945	2757
61	154.23	3.31	16	1.875	3007

61	154.66	3.23	16	1.828	2771
61	155.22	3.31	16	1.875	4207
61	155.71	3.31	16	1.875	5393
61	156.14	3.35	16	1.898	5648
61	156.69	3.31	16	1.875	5977
61	157.25	3.46	16	1.945	4824
61	157.71	3.82	16	2.133	3663
61	158.17	3.58	16	2.016	4437
61	158.73	3.50	16	1.969	5268
61	159.15	3.46	16	1.945	5085
61	159.74	3.54	16	1.992	5459
61	160.20	3.58	16	2.016	5357
61	160.70	3.54	16	1.992	5279
61	161.25	3.50	16	1.969	5706
61	161.71	3.54	16	1.992	5168
61	162.24	3.58	16	2.016	5638
61	162.66	3.62	16	2.039	5419
61	163.16	3.62	16	2.039	5824
61	163.68	3.70	16	2.063	5575
61	164.14	3.70	16	2.063	5166
61	164.67	3.74	16	2.086	5216
61	165.19	3.86	16	2.156	4244
61	165.65	4.21	16	2.344	2921
61	166.11	4.13	16	2.297	3246
61	166.63	3.78	16	2.109	4973
61	167.22	3.74	16	2.086	5228
61	167.65	3.70	16	2.063	5027
61	168.21	3.74	16	2.086	5109
61	168.70	3.62	16	2.039	5025
61	169.19	3.62	16	2.039	5065
61	169.78	3.58	16	2.016	5373
61	170.24	3.58	16	2.016	5418
61	170.77	3.54	16	1.992	5988
61	171.23	3.58	16	2.016	5304
61	171.72	3.54	16	1.992	5117
61	172.15	3.54	16	1.992	4998
61	172.74	3.62	16	2.039	5331
61	173.23	3.78	16	2.109	4686
61	173.72	4.17	16	2.32	3022
61	174.21	3.86	16	2.156	4124
61	174.70	3.70	16	2.063	4951
61	175.23	3.70	16	2.063	5003
61	175.82	3.74	16	2.086	5368
61	176.31	3.70	16	2.063	5148
61	176.71	3.70	16	2.063	5179
61	177.23	3.70	16	2.063	5375
61	177.69	3.62	16	2.039	5254

61	178.25	3.62	16	2.039	5305
61	178.71	3.62	16	2.039	4912
61	179.27	3.62	16	2.039	5270
61	179.79	3.70	16	2.063	5196
61	180.31	3.74	16	2.086	4963
61	180.74	3.78	16	2.109	4872
61	181.27	3.86	16	2.156	4489
61	181.73	4.21	16	2.344	3007
61	182.28	3.90	16	2.18	4355
61	182.74	3.78	16	2.109	4999
61	183.33	3.70	16	2.063	4920
61	183.79	3.78	16	2.109	5400
61	184.32	3.78	16	2.109	4915
61	184.81	3.74	16	2.086	5244
61	185.33	3.74	16	2.086	5392
61	185.83	3.78	16	2.109	5001
61	186.22	3.82	16	2.133	5123
61	186.84	3.82	16	2.133	5407
61	187.34	3.86	16	2.156	5122
61	187.83	3.86	16	2.156	5091
61	188.32	3.86	16	2.156	5285
61	188.35	3.86	16	2.156	5291
61	188.81	3.86	16	2.156	5141
61	189.30	4.02	16	2.227	4867
61	189.76	4.29	16	2.367	3476
61	190.35	4.13	16	2.297	4288
61	190.78	4.02	16	2.227	4998
61	191.34	3.86	16	2.156	5223
61	191.83	3.86	16	2.156	5991
61	192.36	3.78	16	2.109	5928
61	192.81	3.78	16	2.109	5923
61	193.31	3.78	16	2.109	6049
61	193.83	3.86	16	2.156	5734
61	194.26	3.82	16	2.133	5604
61	194.85	3.78	16	2.109	5308
61	195.34	3.86	16	2.156	6164
61	195.87	3.86	16	2.156	5178
61	196.33	3.86	16	2.156	5012
61	196.88	3.90	16	2.18	5404
61	197.34	3.98	16	2.203	4697
61	197.74	4.33	16	2.391	3139
61	198.36	4.21	16	2.344	4060
61	198.88	4.02	16	2.227	5140
61	199.34	4.02	16	2.227	5229
61	199.87	3.98	16	2.203	4939
61	200.33	4.02	16	2.227	4870
61	200.79	3.98	16	2.203	5070

61	201.35	3.98	16	2.203	4738
61	201.87	3.98	16	2.203	5583
61	202.43	3.90	16	2.18	5046
61	202.85	4.02	16	2.227	4859
61	203.31	4.06	16	2.25	4929
61	203.90	4.09	16	2.273	4805
61	204.43	4.09	16	2.273	5120
61	204.89	4.17	16	2.32	4895
61	205.35	4.17	16	2.32	4526
61	205.84	4.65	16	2.555	3128
61	206.40	4.29	16	2.367	3621
61	206.82	4.17	16	2.32	4826
61	207.41	4.17	16	2.32	4797
61	207.87	4.06	16	2.25	4868
61	208.40	4.06	16	2.25	4921
61	208.86	4.09	16	2.273	4838
61	209.38	4.06	16	2.25	5153
61	209.84	4.06	16	2.25	4958
61	210.43	4.13	16	2.297	5106
61	210.93	4.09	16	2.273	4832
61	210.93	4.09	16	2.273	4996
61	211.45	4.09	16	2.273	4936
61	211.48	4.09	16	2.273	5062
61	211.91	4.09	16	2.273	4848
61	212.47	4.13	16	2.297	4803
61	212.96	4.17	16	2.32	4577
61	213.45	4.21	16	2.344	4125
61	214.01	4.88	16	2.672	2849
61	214.53	4.41	16	2.438	3873
61	214.99	4.21	16	2.344	4462
61	215.39	4.21	16	2.344	4739
61	215.94	4.17	16	2.32	4532
61	216.44	4.21	16	2.344	4837
61	216.93	4.21	16	2.344	4400
61	217.45	4.17	16	2.32	4858
61	217.88	4.17	16	2.32	4810
61	218.44	4.13	16	2.297	5208
61	219.03	4.17	16	2.32	4937
61	219.46	4.13	16	2.297	4852
61	219.98	4.13	16	2.297	4776
61	220.47	4.13	16	2.297	4770
61	221.00	4.13	16	2.297	4412
61	221.39	4.29	16	2.367	4077
61	221.95	4.76	16	2.625	2694
61	222.51	4.41	16	2.438	2947
61	223.03	4.17	16	2.32	4033
61	223.52	4.17	16	2.32	4155

61	223.98	4.21	16	2.344	4296
61	224.51	4.13	16	2.297	4327
61	225.03	4.13	16	2.297	4536
61	225.49	4.09	16	2.273	4444
61	225.98	4.13	16	2.297	4396
61	226.54	4.09	16	2.273	4444
61	226.97	4.06	16	2.25	4505
61	227.49	4.13	16	2.297	4671
61	227.99	4.21	16	2.344	4721
61	227.99	4.21	16	2.344	4599
61	228.51	4.29	16	2.367	4320
61	228.97	4.29	16	2.367	4400
61	229.49	4.21	16	2.344	3959
61	229.99	4.69	16	2.578	2553
61	230.54	4.33	16	2.391	3494
61	230.97	4.17	16	2.32	4383
61	231.53	4.21	16	2.344	4114
61	231.53	4.21	16	2.344	4098
61	232.02	4.21	16	2.344	4411
61	232.55	4.21	16	2.344	4048
61	233.01	4.33	16	2.391	4203
62	0.36	4.65	18	2.555	2110
62	0.85	4.65	18	2.555	2446
62	1.38	4.69	18	2.578	2762
62	1.90	4.61	18	2.531	2155
62	2.40	4.49	18	2.484	2015
62	2.85	4.69	18	2.578	2548
62	3.38	4.92	18	2.695	2110
62	3.90	5.12	18	2.813	2462
62	4.40	4.61	18	2.531	1867
62	4.86	4.65	18	2.555	2513
62	5.41	4.57	18	2.508	2251
62	5.87	4.57	18	2.508	2107
62	6.36	4.45	18	2.461	2174
62	6.86	4.41	18	2.438	1972
62	7.45	4.29	18	2.367	1872
62	7.91	4.29	18	2.367	2272
62	8.40	4.29	18	2.367	2367
62	8.86	4.37	18	2.414	3426
62	9.38	4.57	18	2.508	1906
62	9.88	4.41	18	2.438	3051
62	10.33	4.41	18	2.438	1220
62	10.86	4.49	18	2.484	1303
62	11.38	4.76	18	2.625	1293
62	11.91	4.92	18	2.695	535
62	12.40	4.45	18	2.461	2230
62	12.89	4.37	18	2.414	2194

62	13.39	4.33	18	2.391	2095
62	13.91	4.13	18	2.297	2005
62	14.40	4.09	18	2.273	2667
62	14.93	4.17	18	2.32	2370
62	15.45	4.29	18	2.367	2150
62	15.98	4.33	18	2.391	2013
62	16.40	4.21	18	2.344	2170
62	16.93	4.17	18	2.32	1736
62	17.42	4.37	18	2.414	2119
62	17.91	4.49	18	2.484	1081
62	18.41	4.37	18	2.414	1943
62	18.90	4.65	18	2.555	1950
62	19.39	4.88	18	2.672	1264
62	19.91	4.49	18	2.484	1595
62	20.41	4.37	18	2.414	1834
62	20.93	4.33	18	2.391	1898
62	21.42	4.21	18	2.344	2082
62	21.92	4.21	18	2.344	1902
62	22.44	4.33	18	2.391	2156
62	22.93	4.21	18	2.344	1667
62	23.49	4.37	18	2.414	1874
62	23.95	4.33	18	2.391	2015
62	24.44	4.17	18	2.32	2111
62	24.97	4.17	18	2.32	2007
62	25.46	4.29	18	2.367	1698
62	25.98	4.21	18	2.344	1486
62	26.51	4.33	18	2.391	1973
62	27.03	4.45	18	2.461	1047
62	27.49	4.76	18	2.625	1224
62	27.99	4.45	18	2.461	1377
62	28.48	4.13	18	2.297	1910
62	28.90	4.45	18	2.461	808
62	29.20	4.88	18	2.672	9130
62	29.72	4.96	18	2.719	8111
62	30.25	4.76	18	2.625	7125
62	30.51	3.70	18	2.063	1958
62	30.94	3.74	18	2.086	3242
62	31.50	3.90	18	2.18	2883
62	32.02	3.90	18	2.18	3212
62	32.58	3.90	18	2.18	2543
62	33.07	3.98	18	2.203	2846
62	33.53	3.90	18	2.18	2756
62	34.02	3.98	18	2.203	2876
62	34.51	3.90	18	2.18	1891
62	35.04	4.06	18	2.25	1759
62	35.60	4.33	18	2.391	1546
62	36.02	4.13	18	2.297	2034

62	36.45	4.06	18	2.25	2105
62	37.01	4.02	18	2.227	2212
62	37.53	3.98	18	2.203	1735
62	37.99	3.90	18	2.18	1579
62	38.52	4.09	18	2.273	2021
62	39.07	3.82	18	2.133	2525
62	39.57	3.82	18	2.133	2720
62	40.06	3.82	18	2.133	2907
62	40.55	3.78	18	2.109	3172
62	41.04	3.78	18	2.109	2676
62	41.54	4.02	18	2.227	2172
62	42.03	3.82	18	2.133	2949
62	42.52	3.90	18	2.18	2143
62	42.98	3.98	18	2.203	2405
62	43.60	4.29	18	2.367	1655
62	44.03	4.17	18	2.32	1833
62	44.55	4.09	18	2.273	2037
62	45.05	4.02	18	2.227	2324
62	45.54	3.90	18	2.18	2734
62	46.06	3.86	18	2.156	3012
62	46.56	3.82	18	2.133	3782
62	47.11	3.78	18	2.109	3737
62	47.57	3.82	18	2.133	3527
62	48.03	3.82	18	2.133	4335
62	48.59	3.82	18	2.133	4191
62	49.05	3.78	18	2.109	4360
62	49.61	3.78	18	2.109	4530
62	50.07	3.78	18	2.109	4054
62	50.62	3.82	18	2.133	4216
62	51.05	3.98	18	2.203	4030
62	51.61	4.37	18	2.414	2383
62	52.10	4.09	18	2.273	3214
62	52.62	3.90	18	2.18	3952
62	53.05	3.82	18	2.133	4494
62	53.58	3.82	18	2.133	4470
62	54.07	3.82	18	2.133	4411
62	54.63	3.82	18	2.133	3916
62	55.12	3.74	18	2.086	4703
62	55.64	3.78	18	2.109	3569
62	56.14	3.78	18	2.109	3743
62	56.59	3.82	18	2.133	3214
62	57.09	3.78	18	2.109	4063
62	57.55	3.82	18	2.133	3041
62	58.10	3.82	18	2.133	3430
62	58.69	3.78	18	2.109	3433
62	59.19	3.90	18	2.18	3395
62	59.61	4.21	18	2.344	2310

62	60.14	3.98	18	2.203	3265
62	60.63	3.82	18	2.133	3874
62	61.22	3.86	18	2.156	4223
62	61.68	3.78	18	2.109	4584
62	62.14	3.78	18	2.109	4316
62	62.57	3.82	18	2.133	3758
62	63.16	3.82	18	2.133	3887
62	63.62	3.90	18	2.18	2999
62	64.17	3.82	18	2.133	4210
62	64.44	4.61	18	2.531	7182
62	64.96	4.57	18	2.508	7244
62	65.42	4.72	18	2.602	8112
62	65.94	4.61	18	2.531	7435
62	66.44	4.76	18	2.625	7431
62	66.70	4.02	18	2.227	2227
62	67.26	4.29	18	2.367	1351
62	67.59	5.00	18	2.742	3239
62	67.95	4.96	18	2.719	4984
62	68.44	4.88	18	2.672	5190
62	68.73	4.13	18	2.297	3283
62	69.23	4.02	18	2.227	2570
62	69.65	3.82	18	2.133	3077
62	70.21	3.78	18	2.109	2589
62	70.73	3.78	18	2.109	2710
62	71.13	3.78	18	2.109	2975
62	71.65	3.74	18	2.086	3097
62	72.11	3.70	18	2.063	2978
62	72.64	3.74	18	2.086	2138
62	73.16	3.70	18	2.063	2511
62	73.62	3.78	18	2.109	2086
62	74.21	3.70	18	2.063	2423
62	74.64	3.70	18	2.063	2531
62	75.20	3.78	18	2.109	2768
62	75.66	3.82	18	2.133	1361
62	76.12	4.06	18	2.25	1525
62	76.67	3.82	18	2.133	1911
62	77.20	3.70	18	2.063	2927
62	77.69	3.74	18	2.086	3054
62	78.22	3.62	18	2.039	3443
62	78.71	3.62	18	2.039	2580
62	79.10	3.58	18	2.016	2851
62	79.76	3.70	18	2.063	2910
62	80.15	3.70	18	2.063	4310
62	80.74	3.62	18	2.039	2844
62	81.27	3.74	18	2.086	2408
62	81.73	3.70	18	2.063	2381
62	82.22	3.78	18	2.109	2658

62	82.78	3.98	18	2.203	2501
62	83.23	3.74	18	2.086	2650
62	83.76	3.78	18	2.109	3006
62	84.32	3.78	18	2.109	3202
62	84.78	3.74	18	2.086	2850
62	85.24	3.78	18	2.109	2728
62	85.70	3.86	18	2.156	3538
62	86.19	3.82	18	2.133	2412
62	86.75	3.82	18	2.133	3210
62	87.27	3.82	18	2.133	2369
62	87.70	3.86	18	2.156	2567
62	88.25	3.86	18	2.156	2002
62	88.75	3.90	18	2.18	2392
62	89.24	4.02	18	2.227	2310
62	89.70	4.13	18	2.297	1481
62	90.26	4.17	18	2.32	1473
62	90.78	3.82	18	2.133	1712
62	91.34	3.78	18	2.109	2113
62	91.80	3.78	18	2.109	1080
62	92.32	3.74	18	2.086	2579
62	92.78	3.70	18	2.063	1224
62	93.27	3.78	18	2.109	2669
62	93.80	3.70	18	2.063	1635
62	94.26	3.62	18	2.039	3197
62	94.75	3.74	18	2.086	2414
62	95.28	3.62	18	2.039	3009
62	95.87	3.62	18	2.039	3238
62	96.36	3.70	18	2.063	3875
62	96.78	3.74	18	2.086	3372
62	97.34	3.98	18	2.203	1952
62	97.77	3.74	18	2.086	3402
62	98.39	3.70	18	2.063	2813
62	98.85	3.78	18	2.109	3112
62	99.38	3.62	18	2.039	3246
62	99.64	4.49	18	2.484	4927
62	100.13	4.57	18	2.508	7692
62	100.43	3.90	18	2.18	668
62	100.98	4.02	18	2.227	-283
62	101.38	3.90	18	2.18	967
62	101.94	4.09	18	2.273	2237
62	102.36	3.70	18	2.063	2917
62	102.92	3.82	18	2.133	3097
62	103.31	3.70	18	2.063	2858
62	103.90	3.70	18	2.063	2899
62	104.40	3.62	18	2.039	2695
62	104.89	3.74	18	2.086	2874
62	105.38	3.78	18	2.109	2571

62	105.87	3.78	18	2.109	2141
62	106.46	3.86	18	2.156	1957
62	106.92	3.90	18	2.18	2044
62	107.45	3.70	18	2.063	2381
62	107.94	3.70	18	2.063	2981
62	108.37	3.50	18	1.969	2165
62	108.86	3.58	18	2.016	2607
62	109.42	3.70	18	2.063	2243
62	109.88	3.70	18	2.063	1943
62	110.37	3.86	18	2.156	1564
62	110.89	3.78	18	2.109	1971
62	111.42	3.78	18	2.109	2789
62	111.91	3.82	18	2.133	1857
62	112.47	3.86	18	2.156	2679
62	112.93	3.86	18	2.156	1729
62	113.39	3.98	18	2.203	2123
62	113.94	4.06	18	2.25	2173
62	114.44	4.21	18	2.344	2404
62	114.96	4.06	18	2.25	1566
62	115.42	3.98	18	2.203	2766
62	115.94	3.86	18	2.156	2129
62	116.44	3.98	18	2.203	2508
62	116.90	3.90	18	2.18	2768
62	117.42	3.86	18	2.156	2532
62	117.98	3.98	18	2.203	3027
62	118.41	3.86	18	2.156	2067
62	118.96	3.86	18	2.156	2370
62	119.42	3.82	18	2.133	2843
62	119.98	3.86	18	2.156	3477
62	120.44	3.82	18	2.133	2565
62	120.90	3.86	18	2.156	2685
62	121.42	3.86	18	2.156	2913
62	121.95	3.86	18	2.156	2190
62	122.47	3.74	18	2.086	1652
62	122.93	3.74	18	2.086	2117
62	123.46	3.62	18	2.039	2782
62	123.95	3.54	18	1.992	2741
62	124.44	3.58	18	2.016	2007
62	125.03	3.58	18	2.016	2890
62	125.49	3.46	18	1.945	2604
62	125.95	3.35	18	1.898	2586
62	126.51	3.31	18	1.875	2781
62	127.00	3.35	18	1.898	2874
62	127.49	3.31	18	1.875	3254
62	127.99	3.43	18	1.922	2874
62	128.48	3.43	18	1.922	2697
62	129.00	3.35	18	1.898	3197

62	129.49	3.31	18	1.875	3165
62	129.99	3.43	18	1.922	2280
62	130.58	3.46	18	1.945	2732
62	131.07	3.58	18	2.016	1837
62	131.50	3.62	18	2.039	2192
62	132.05	3.54	18	1.992	2619
62	132.51	3.58	18	2.016	2000
62	133.04	3.62	18	2.039	2723
62	133.56	3.70	18	2.063	2161
62	134.12	3.54	18	1.992	1829
62	134.58	3.58	18	2.016	2880
62	135.04	3.58	18	2.016	2501
62	135.56	3.86	18	2.156	2708
62	136.09	3.82	18	2.133	2879
62	136.58	3.78	18	2.109	2621
62	137.07	3.90	18	2.18	2927
62	137.63	3.70	18	2.063	1552
62	138.16	3.78	18	2.109	1876
62	138.65	3.86	18	2.156	2132
62	139.17	3.70	18	2.063	2481
62	139.60	3.74	18	2.086	1893
62	140.09	3.74	18	2.086	1765
62	140.58	3.62	18	2.039	1520
62	141.08	3.58	18	2.016	2655
62	141.60	3.58	18	2.016	2301
62	142.09	3.58	18	2.016	1579
62	142.59	3.54	18	1.992	1928
62	143.14	3.46	18	1.945	2768
62	143.64	3.31	18	1.875	2032
62	144.13	3.46	18	1.945	2327
62	144.69	3.43	18	1.922	2757
62	145.14	3.31	18	1.875	2877
62	145.64	3.43	18	1.922	3343
62	146.06	3.54	18	1.992	4145
62	146.59	3.35	18	1.898	3334
62	147.05	3.35	18	1.898	4300
62	147.57	3.35	18	1.898	4074
62	148.06	3.27	18	1.852	2944
62	148.49	3.46	18	1.945	3834
62	149.05	3.35	18	1.898	2784
62	149.57	3.58	18	2.016	2617
62	150.10	3.50	18	1.969	3725
62	150.56	3.74	18	2.086	2401
62	151.08	3.70	18	2.063	3239
62	151.54	3.82	18	2.133	2826
62	152.13	3.78	18	2.109	3057
62	152.59	4.13	18	2.297	2767

62	153.12	4.06	18	2.25	2221
62	153.61	4.06	18	2.25	2946
62	154.07	3.78	18	2.109	2037
62	154.56	3.74	18	2.086	1900
62	155.09	3.70	18	2.063	2021
62	155.64	3.74	18	2.086	2662
62	156.14	3.70	18	2.063	3077
62	156.66	3.58	18	2.016	2909
62	157.12	3.62	18	2.039	2542
62	157.58	3.58	18	2.016	2202
62	158.17	3.54	18	1.992	2706
62	158.66	3.46	18	1.945	3530
62	159.15	3.46	18	1.945	3527
62	159.61	3.58	18	2.016	2895
62	160.10	3.58	18	2.016	2351
62	160.63	3.98	18	2.203	1643
62	161.06	3.78	18	2.109	2412
62	161.61	3.74	18	2.086	2140
62	162.11	3.62	18	2.039	2704
62	162.66	3.58	18	2.016	2864
62	163.16	3.54	18	1.992	3552
62	163.65	3.54	18	1.992	3156
62	164.17	3.54	18	1.992	3677
62	164.67	3.58	18	2.016	3365
62	165.16	3.54	18	1.992	3789
62	165.68	3.54	18	1.992	3181
62	166.17	3.50	18	1.969	3337
62	166.70	3.58	18	2.016	3136
62	167.16	3.54	18	1.992	3599
62	167.65	3.58	18	2.016	2799
62	168.18	3.62	18	2.039	2886
62	168.70	4.02	18	2.227	1898
62	169.13	3.62	18	2.039	1942
62	169.62	3.70	18	2.063	2902
62	170.14	3.54	18	1.992	3424
62	170.70	3.58	18	2.016	2798
62	171.19	3.62	18	2.039	1038
62	171.46	4.37	18	2.414	7919
62	171.95	4.37	18	2.414	9004
62	172.24	3.98	18	2.203	1055
62	172.70	3.98	18	2.203	586
62	173.20	3.82	18	2.133	2230
62	173.65	3.78	18	2.109	2575
62	173.69	3.78	18	2.109	2613
62	174.18	3.78	18	2.109	2244
62	174.70	3.90	18	2.18	2118
62	175.26	3.90	18	2.18	2275

62	175.72	3.98	18	2.203	2513
62	176.18	3.98	18	2.203	2142
62	176.71	4.13	18	2.297	1498
62	177.17	3.98	18	2.203	1448
62	177.72	3.74	18	2.086	1444
62	178.22	3.62	18	2.039	1899
62	178.74	3.62	18	2.039	2538
62	179.27	3.62	18	2.039	2639
62	179.72	3.46	18	1.945	2550
62	180.22	3.58	18	2.016	2351
62	180.71	3.50	18	1.969	2815
62	181.23	3.62	18	2.039	1457
62	181.73	3.50	18	1.969	2882
62	182.32	3.54	18	1.992	3059
62	182.74	3.50	18	1.969	3069
62	183.23	3.58	18	2.016	2597
62	183.76	3.58	18	2.016	2313
62	184.28	3.54	18	1.992	2442
62	184.78	4.02	18	2.227	1298
62	185.30	4.02	18	2.227	1186
62	185.76	3.70	18	2.063	1904
62	186.32	3.62	18	2.039	1810
62	186.78	3.62	18	2.039	1899
62	187.24	3.70	18	2.063	1843
62	187.76	3.74	18	2.086	1529
62	188.29	3.74	18	2.086	1369
62	188.75	3.78	18	2.109	1183
62	189.27	3.82	18	2.133	2034
62	189.83	3.86	18	2.156	2298
62	190.26	3.82	18	2.133	1292
62	190.81	3.86	18	2.156	2379
62	191.31	3.86	18	2.156	1754
62	191.77	3.82	18	2.133	1541
62	192.26	4.02	18	2.227	1269
62	192.72	4.13	18	2.297	2001
62	193.27	4.17	18	2.32	2186
62	193.80	3.90	18	2.18	1980
62	194.32	3.98	18	2.203	2067
62	194.82	3.90	18	2.18	3133
62	195.31	3.90	18	2.18	2373
62	195.80	3.86	18	2.156	2993
62	196.33	3.86	18	2.156	2193
62	196.85	3.82	18	2.133	2230
62	197.28	3.82	18	2.133	1910
62	197.87	3.62	18	2.039	2503
62	198.26	3.74	18	2.086	2266
62	198.85	3.58	18	2.016	2861

62	199.31	3.62	18	2.039	2557
62	199.87	3.70	18	2.063	3182
62	200.36	3.82	18	2.133	2634
62	200.92	4.13	18	2.297	1568
62	201.38	3.86	18	2.156	1721
62	201.87	3.74	18	2.086	2358
62	202.33	3.70	18	2.063	2472
62	202.85	3.70	18	2.063	2434
62	203.35	3.70	18	2.063	2000
62	203.90	3.78	18	2.109	2238
62	204.43	3.54	18	1.992	2529
62	204.92	3.62	18	2.039	2446
62	205.41	3.70	18	2.063	2283
62	205.91	3.62	18	2.039	2406
62	206.17	4.29	18	2.367	7091
62	206.59	4.33	18	2.391	8568
62	207.09	4.45	18	2.461	9340
62	207.64	4.45	18	2.461	9052
62	208.10	4.45	18	2.461	7800
62	208.66	4.76	18	2.625	5656
62	208.89	4.29	18	2.367	1149
62	209.42	4.02	18	2.227	1090
62	209.88	3.90	18	2.18	1687
62	210.43	3.78	18	2.109	1638
62	210.93	3.62	18	2.039	2488
62	211.48	3.70	18	2.063	2660
62	211.91	3.62	18	2.039	3186
62	212.50	3.70	18	2.063	3707
62	212.99	3.78	18	2.109	3054
62	213.52	3.78	18	2.109	3887
62	213.91	3.78	18	2.109	3580
62	214.40	3.86	18	2.156	4234
62	214.96	3.82	18	2.133	4909
62	215.42	3.90	18	2.18	4310
62	215.98	4.06	18	2.25	4899
62	216.47	4.13	18	2.297	3994
62	217.03	4.41	18	2.438	3596
62	217.52	4.13	18	2.297	4712
62	218.08	4.06	18	2.25	4993
62	218.47	4.06	18	2.25	5155
62	219.03	4.02	18	2.227	5128
62	219.52	4.06	18	2.25	4800
62	219.98	3.90	18	2.18	5021
62	220.47	3.90	18	2.18	4008
62	220.96	4.02	18	2.227	4981
62	221.46	3.98	18	2.203	4461
62	222.01	4.06	18	2.25	4654

62	222.57	4.06	18	2.25	4194
62	223.06	4.09	18	2.273	4452
62	223.59	4.06	18	2.25	4064
62	224.02	4.09	18	2.273	4088
62	224.48	4.09	18	2.273	3327
62	225.00	4.37	18	2.414	2164
62	225.46	4.17	18	2.32	2569
62	225.98	4.13	18	2.297	3389
62	226.54	4.06	18	2.25	2799
62	227.00	4.13	18	2.297	2967
62	227.56	4.02	18	2.227	2761
62	228.05	4.06	18	2.25	1874
62	228.58	4.06	18	2.25	2115
62	229.04	4.21	18	2.344	1735
62	229.53	4.06	18	2.25	2430
62	230.05	3.98	18	2.203	1318
62	230.48	4.02	18	2.227	1733
62	231.00	4.09	18	2.273	1565
62	231.53	4.09	18	2.273	1836
62	232.02	4.09	18	2.273	2224
62	232.58	4.21	18	2.344	1455
63	0.49	3.90	20	2.18	9760
63	0.92	3.86	20	2.156	9071
63	1.48	3.82	20	2.133	8900
63	2.00	3.86	20	2.156	9501
63	2.53	3.82	20	2.133	9432
63	3.02	3.86	20	2.156	8966
63	3.44	3.82	20	2.133	8843
63	4.00	3.78	20	2.109	9286
63	4.49	3.90	20	2.18	8690
63	4.92	3.82	20	2.133	8584
63	5.41	3.90	20	2.18	8917
63	6.00	3.98	20	2.203	8938
63	6.46	4.02	20	2.227	9290
63	7.05	3.98	20	2.203	8663
63	7.51	4.06	20	2.25	6446
63	8.04	4.06	20	2.25	7750
63	8.53	3.98	20	2.203	8278
63	9.06	3.86	20	2.156	9642
63	9.48	3.86	20	2.156	8514
63	9.91	3.86	20	2.156	8624
63	10.43	3.78	20	2.109	8994
63	10.96	3.74	20	2.086	9534
63	11.55	3.74	20	2.086	9342
63	12.07	3.70	20	2.063	9181
63	12.57	3.70	20	2.063	9826
63	13.06	3.70	20	2.063	8621

63	13.52	3.74	20	2.086	9070
63	14.04	3.70	20	2.063	8944
63	14.53	3.82	20	2.133	8750
63	15.03	3.82	20	2.133	8985
63	15.49	3.98	20	2.203	7280
63	16.04	3.82	20	2.133	8652
63	16.50	3.82	20	2.133	9096
63	17.06	3.78	20	2.109	9380
63	17.55	3.78	20	2.109	8365
63	18.04	3.74	20	2.086	8989
63	18.54	3.70	20	2.063	9438
63	19.09	3.74	20	2.086	9216
63	19.59	3.62	20	2.039	8718
63	20.01	3.58	20	2.016	9257
63	20.51	3.58	20	2.016	8650
63	21.06	3.58	20	2.016	9365
63	21.59	3.58	20	2.016	9392
63	22.08	3.46	20	1.945	9099
63	22.60	3.46	20	1.945	9171
63	23.13	3.50	20	1.969	9092
63	23.62	3.54	20	1.992	7936
63	24.15	3.54	20	1.992	8140
63	24.61	3.43	20	1.922	9667
63	25.16	3.35	20	1.898	9976
63	25.66	3.43	20	1.922	10291
63	26.12	3.35	20	1.898	9588
63	26.67	3.35	20	1.898	9607
63	27.17	3.31	20	1.875	9180
63	27.66	3.31	20	1.875	10062
63	28.08	3.27	20	1.852	9582
63	28.61	3.31	20	1.875	10048
63	29.10	3.31	20	1.875	9222
63	29.63	3.31	20	1.875	10109
63	30.15	3.35	20	1.898	10433
63	30.64	3.35	20	1.898	9906
63	31.17	3.43	20	1.922	9502
63	31.63	3.50	20	1.969	8084
63	32.12	3.50	20	1.969	8146
63	32.61	3.50	20	1.969	9869
63	33.17	3.46	20	1.945	9561
63	33.66	3.35	20	1.898	9893
63	34.15	3.35	20	1.898	9630
63	34.71	3.43	20	1.922	9585
63	35.24	3.35	20	1.898	9314
63	35.70	3.35	20	1.898	9464
63	36.19	3.31	20	1.875	8984
63	36.65	3.43	20	1.922	9171

63	37.24	3.43	20	1.922	9058
63	37.73	3.54	20	1.992	8497
63	38.25	3.46	20	1.945	8970
63	38.75	3.50	20	1.969	8980
63	39.21	3.54	20	1.992	8896
63	39.67	3.74	20	2.086	7857
63	40.26	3.62	20	2.039	8326
63	40.78	3.58	20	2.016	8685
63	41.27	3.58	20	2.016	9357
63	41.83	3.58	20	2.016	9252
63	42.22	3.50	20	1.969	8605
63	42.72	3.46	20	1.945	9511
63	43.27	3.46	20	1.945	9174
63	43.73	3.46	20	1.945	9454
63	44.23	3.46	20	1.945	9315
63	44.75	3.43	20	1.922	8991
63	45.24	3.43	20	1.922	9714
63	45.77	3.43	20	1.922	9881
63	46.26	3.43	20	1.922	9483
63	46.75	3.43	20	1.922	9146
63	47.24	3.35	20	1.898	9425
63	47.74	3.62	20	2.039	7389
63	48.29	3.54	20	1.992	7684
63	48.75	3.46	20	1.945	9261
63	49.28	3.46	20	1.945	9732
63	49.80	3.43	20	1.922	8709
63	50.33	3.43	20	1.922	9254
63	50.82	3.46	20	1.945	9045
63	51.21	3.46	20	1.945	9333
63	51.80	3.50	20	1.969	9371
63	52.33	3.46	20	1.945	9485
63	52.82	3.46	20	1.945	10056
63	53.28	3.46	20	1.945	9614
63	53.77	3.50	20	1.969	8429
63	54.30	3.54	20	1.992	9236
63	54.82	3.58	20	2.016	9185
63	55.31	3.58	20	2.016	9475
63	55.77	3.62	20	2.039	7215
63	56.33	3.78	20	2.109	6530
63	56.79	3.54	20	1.992	9187
63	57.32	3.50	20	1.969	9818
63	57.78	3.50	20	1.969	9816
63	58.30	3.50	20	1.969	9481
63	58.83	3.46	20	1.945	9433
63	59.35	3.43	20	1.922	9556
63	59.88	3.46	20	1.945	10442
63	60.30	3.43	20	1.922	9362

63	60.83	3.46	20	1.945	9818
63	61.32	3.46	20	1.945	9417
63	61.84	3.43	20	1.922	8439
63	62.27	3.35	20	1.898	9135
63	62.80	3.35	20	1.898	8871
63	63.35	3.43	20	1.922	9304
63	63.88	3.54	20	1.992	7840
63	64.40	3.31	20	1.875	8685
63	64.80	3.27	20	1.852	9274
63	65.35	3.27	20	1.852	10089
63	65.91	3.31	20	1.875	9294
63	66.34	3.31	20	1.875	9024
63	66.83	3.27	20	1.852	8724
63	67.36	3.31	20	1.875	9433
63	67.85	3.43	20	1.922	9363
63	68.41	3.31	20	1.875	9065
63	68.90	3.31	20	1.875	9651
63	69.36	3.27	20	1.852	9499
63	69.88	3.31	20	1.875	9047
63	70.31	3.31	20	1.875	9453
63	70.87	3.31	20	1.875	9425
63	71.42	3.35	20	1.898	8628
63	71.88	3.54	20	1.992	7770
63	72.47	3.43	20	1.922	8696
63	72.87	3.43	20	1.922	9590
63	73.39	3.35	20	1.898	8812
63	73.95	3.31	20	1.875	9468
63	74.41	3.23	20	1.828	9169
63	74.84	3.27	20	1.852	8582
63	75.36	3.27	20	1.852	9672
63	75.92	3.27	20	1.852	9186
63	76.41	3.27	20	1.852	10176
63	76.84	3.31	20	1.875	9473
63	77.36	3.43	20	1.922	9846
63	77.89	3.35	20	1.898	8755
63	78.48	3.35	20	1.898	9582
63	79.00	3.31	20	1.875	9411
63	79.46	3.35	20	1.898	9420
63	79.89	3.43	20	1.922	8101
63	80.38	3.31	20	1.875	8663
63	80.87	3.27	20	1.852	9295
63	81.40	3.11	20	1.781	9562
63	81.96	3.19	20	1.805	9621
63	82.41	3.11	20	1.781	9466
63	82.94	3.07	20	1.758	8500
63	83.46	3.11	20	1.781	5476
63	83.96	3.03	20	1.734	4823

63	84.48	3.03	20	1.734	5500
63	85.04	2.99	20	1.711	5236
63	85.47	2.99	20	1.711	5928
63	85.96	2.99	20	1.711	6392
63	86.48	3.03	20	1.734	7529
63	87.01	2.99	20	1.711	6937
63	87.50	3.19	20	1.805	6771
63	87.96	3.03	20	1.734	7479
63	88.39	3.03	20	1.734	8521
63	88.88	3.03	20	1.734	8629
63	89.44	3.03	20	1.734	8948
63	89.96	3.03	20	1.734	8487
63	90.42	2.99	20	1.711	8768
63	90.98	3.03	20	1.734	9282
63	91.47	3.07	20	1.758	9225
63	91.96	3.07	20	1.758	8929
63	92.45	3.11	20	1.781	8287
63	92.95	3.11	20	1.781	7281
63	93.47	3.23	20	1.828	6358
63	93.93	3.07	20	1.758	5688
63	94.36	3.46	20	1.945	3230
63	94.88	3.35	20	1.898	4355
63	95.37	3.50	20	1.969	4012
63	95.93	3.46	20	1.945	4803
63	96.39	3.43	20	1.922	4690
63	96.85	3.43	20	1.922	4787
63	97.47	3.50	20	1.969	5737
63	98.00	3.46	20	1.945	5388
63	98.52	3.46	20	1.945	5729
63	98.98	3.50	20	1.969	6662
63	99.44	3.46	20	1.945	5631
63	100.00	3.70	20	2.063	7621
63	100.49	3.70	20	2.063	8140
63	101.05	3.62	20	2.039	8944
63	101.54	3.58	20	2.016	7784
63	102.10	3.54	20	1.992	9849
63	102.46	3.35	20	1.898	5495
63	103.02	3.31	20	1.875	5272
63	103.61	3.27	20	1.852	4696
63	104.07	3.19	20	1.805	5101
63	104.53	3.19	20	1.805	4399
63	105.05	3.11	20	1.781	3479
63	105.58	3.07	20	1.758	3993
63	106.07	2.99	20	1.711	3706
63	106.56	2.91	20	1.664	4327
63	107.02	2.95	20	1.688	4936
63	107.58	2.95	20	1.688	5134

63	108.04	2.99	20	1.711	6616
63	108.53	2.91	20	1.664	7404
63	109.09	2.95	20	1.688	7435
63	109.61	2.95	20	1.688	7479
63	110.10	2.99	20	1.711	5688
63	110.56	3.19	20	1.805	5863
63	111.09	3.07	20	1.758	6873
63	111.61	3.19	20	1.805	7195
63	112.07	3.11	20	1.781	7672
63	112.60	3.23	20	1.828	8253
63	112.60	3.27	20	1.852	8062
63	113.09	3.11	20	1.781	6611
63	113.58	3.23	20	1.828	7914
63	114.14	3.19	20	1.805	7598
63	114.57	3.19	20	1.805	6981
63	115.12	3.19	20	1.805	7337
63	115.58	3.23	20	1.828	7189
63	116.11	3.23	20	1.828	8444
63	116.63	3.23	20	1.828	7027
63	117.13	3.35	20	1.898	6992
63	117.62	3.27	20	1.852	6609
63	118.08	3.31	20	1.875	6163
63	118.57	3.62	20	2.039	5880
63	119.06	3.43	20	1.922	4917
63	119.55	3.46	20	1.945	4887
63	120.11	3.54	20	1.992	3304
63	120.57	3.62	20	2.039	3764
63	121.06	3.54	20	1.992	4546
63	121.59	3.50	20	1.969	4252
63	122.08	3.46	20	1.945	5056
63	122.64	3.50	20	1.969	5764
63	123.20	3.58	20	2.016	5523
63	123.69	3.46	20	1.945	5004
63	124.11	3.46	20	1.945	5312
63	124.74	3.43	20	1.922	6021
63	125.20	3.46	20	1.945	7204
63	125.69	3.43	20	1.922	6011
63	126.12	3.35	20	1.898	5878
63	126.57	3.74	20	2.086	6198
63	127.07	3.43	20	1.922	5892
63	127.69	3.46	20	1.945	7125
63	128.12	3.35	20	1.898	5648
63	128.67	3.31	20	1.875	5753
63	129.13	3.35	20	1.898	5695
63	129.66	3.35	20	1.898	5464
63	130.25	3.46	20	1.945	5706
63	130.68	3.43	20	1.922	5332

63	131.23	3.46	20	1.945	6417
63	131.66	3.46	20	1.945	5783
63	132.22	3.50	20	1.969	5595
63	132.64	3.54	20	1.992	5267
63	133.20	3.58	20	2.016	7017
63	133.73	3.58	20	2.016	6235
63	134.19	3.70	20	2.063	7738
63	134.65	3.86	20	2.156	7804
63	135.24	3.62	20	2.039	6652
63	135.76	3.58	20	2.016	6621
63	136.22	3.86	20	2.156	5266
63	136.78	3.54	20	1.992	5894
63	137.24	3.62	20	2.039	5441
63	137.70	3.43	20	1.922	4453
63	138.29	3.50	20	1.969	4403
63	138.81	3.46	20	1.945	5741
63	139.34	3.35	20	1.898	6100
63	139.80	3.35	20	1.898	5629
63	140.29	3.31	20	1.875	6394
63	140.78	3.31	20	1.875	6046
63	141.24	3.35	20	1.898	5671
63	141.73	3.43	20	1.922	5218
63	142.22	3.35	20	1.898	4678
63	142.75	3.74	20	2.086	3566
63	143.31	3.58	20	2.016	3881
63	143.80	3.35	20	1.898	5447
63	144.26	3.50	20	1.969	3904
63	144.78	3.46	20	1.945	4060
63	145.31	3.35	20	1.898	5170
63	145.83	3.43	20	1.922	4732
63	146.29	3.35	20	1.898	5232
63	146.82	3.31	20	1.875	5244
63	147.34	3.27	20	1.852	4953
63	147.80	3.31	20	1.875	4765
63	148.36	3.35	20	1.898	5072
63	148.82	3.35	20	1.898	4185
63	149.25	3.31	20	1.875	4098
63	149.80	3.50	20	1.969	4800
63	150.39	3.46	20	1.945	6049
63	150.89	3.54	20	1.992	4478
63	151.38	3.31	20	1.875	5265
63	151.90	3.35	20	1.898	5524
63	152.30	3.43	20	1.922	5380
63	152.89	3.27	20	1.852	4928
63	153.35	3.23	20	1.828	5186
63	153.87	3.27	20	1.852	5258
63	154.49	3.27	20	1.852	6394

63	154.89	3.31	20	1.875	9203
63	155.38	3.07	20	1.758	8799
63	155.91	3.19	20	1.805	8740
63	156.36	3.19	20	1.805	9189
63	156.89	3.43	20	1.922	6887
63	157.45	3.23	20	1.828	7448
63	157.91	3.03	20	1.734	8938
63	158.37	3.11	20	1.781	9176
63	158.96	3.19	20	1.805	9390
63	159.38	3.11	20	1.781	9163
63	159.94	3.07	20	1.758	8673
63	160.40	3.19	20	1.805	9004
63	160.89	3.19	20	1.805	9684
63	161.45	3.19	20	1.805	8914
63	161.84	3.27	20	1.852	8423
63	162.47	3.27	20	1.852	9349
63	162.89	3.27	20	1.852	9644
63	163.39	3.27	20	1.852	8459
63	163.91	3.43	20	1.922	9514
63	164.37	3.46	20	1.945	9000
63	164.90	3.70	20	2.063	7239
63	165.42	3.70	20	2.063	6987
63	165.85	3.58	20	2.016	8714
63	166.31	3.54	20	1.992	8912
63	166.90	3.58	20	2.016	9074
63	167.45	3.70	20	2.063	9439
63	167.91	3.70	20	2.063	9433
63	168.47	3.70	20	2.063	8919
63	168.96	3.74	20	2.086	8636
63	169.39	3.70	20	2.063	9592
63	169.91	3.74	20	2.086	9052
63	169.91	3.74	20	2.086	9113
63	170.41	3.70	20	2.063	8733
63	170.96	3.74	20	2.086	9448
63	171.42	3.70	20	2.063	9047
63	171.88	3.70	20	2.063	8746
63	172.38	3.62	20	2.039	8602
63	172.93	3.78	20	2.109	7814
63	173.46	3.74	20	2.086	6847
63	173.95	3.54	20	1.992	7563
63	174.38	3.58	20	2.016	8231
63	174.90	3.54	20	1.992	8787
63	175.43	3.58	20	2.016	8323
63	176.02	3.62	20	2.039	9082
63	176.51	3.58	20	2.016	8761
63	177.00	3.54	20	1.992	8863
63	177.43	3.62	20	2.039	8802

63	177.95	3.62	20	2.039	9324
63	178.51	3.58	20	2.016	8638
63	179.00	3.70	20	2.063	8819
63	179.53	3.62	20	2.039	8719
63	180.02	3.70	20	2.063	8280
63	180.54	3.74	20	2.086	8078
63	180.97	3.78	20	2.109	6873
63	181.50	3.78	20	2.109	7935
63	181.96	3.74	20	2.086	8786
63	182.51	3.70	20	2.063	8422
63	182.97	3.58	20	2.016	9025
63	183.50	3.58	20	2.016	9406
63	183.99	3.54	20	1.992	9271
63	184.55	3.54	20	1.992	8404
63	185.01	3.54	20	1.992	8856
63	185.56	3.54	20	1.992	8359
63	186.02	3.54	20	1.992	9017
63	186.48	3.58	20	2.016	8466
63	187.04	3.58	20	2.016	8867
63	187.53	3.62	20	2.039	9337
63	188.02	3.70	20	2.063	9922
63	188.55	3.70	20	2.063	8897
63	189.04	3.74	20	2.086	7864
63	189.57	3.82	20	2.133	7325
63	189.99	3.58	20	2.016	9092
63	190.55	3.58	20	2.016	8611
63	191.04	3.62	20	2.039	10068
63	191.57	3.62	20	2.039	9028
63	192.06	3.70	20	2.063	9076
63	192.59	3.62	20	2.039	8589
63	193.04	3.58	20	2.016	8766
63	193.50	3.58	20	2.016	9345
63	194.06	3.70	20	2.063	8531
63	194.46	3.62	20	2.039	8778
63	195.08	3.70	20	2.063	9536
63	195.57	3.74	20	2.086	9632
63	196.06	3.74	20	2.086	9166
63	196.59	3.82	20	2.133	8679
63	197.08	3.86	20	2.156	7147
63	197.60	4.09	20	2.273	5952
63	198.00	3.82	20	2.133	8547
63	198.52	3.82	20	2.133	9026
63	199.08	3.78	20	2.109	7684
63	199.61	3.78	20	2.109	8837
63	200.10	3.78	20	2.109	8569
63	200.52	3.74	20	2.086	9102
63	200.98	3.78	20	2.109	8566

63	201.57	3.62	20	2.039	8896
63	202.13	3.74	20	2.086	8840
63	202.66	3.74	20	2.086	9326
63	203.08	3.74	20	2.086	9138
63	203.58	3.74	20	2.086	8661
63	204.13	3.78	20	2.109	8270
63	204.63	3.82	20	2.133	8832
63	205.12	3.90	20	2.18	6803
63	205.61	4.06	20	2.25	5928
63	206.07	3.90	20	2.18	8147
63	206.56	3.90	20	2.18	8724
63	207.12	3.90	20	2.18	8119
63	207.61	3.86	20	2.156	8323
63	208.17	3.90	20	2.18	8926
63	208.63	3.98	20	2.203	8933
63	209.15	3.90	20	2.18	8980
63	209.65	3.98	20	2.203	8490
63	210.14	3.98	20	2.203	7852
63	210.63	4.02	20	2.227	8623
63	211.12	4.02	20	2.227	8147
63	211.68	4.06	20	2.25	7870
63	212.14	4.09	20	2.273	8666
63	212.66	4.09	20	2.273	7702
63	213.12	4.17	20	2.32	6688
63	213.68	4.29	20	2.367	5592
63	214.17	4.06	20	2.25	8358
63	214.70	4.06	20	2.25	8386
63	215.19	4.06	20	2.25	8911
63	215.62	4.06	20	2.25	8906
63	216.21	3.98	20	2.203	9029
63	216.67	3.98	20	2.203	8023
63	217.22	3.98	20	2.203	8887
63	217.72	3.90	20	2.18	8442
63	218.14	3.86	20	2.156	8450
63	218.67	3.90	20	2.18	8686
63	219.19	3.86	20	2.156	7909
63	219.65	3.90	20	2.18	7964
63	220.18	3.90	20	2.18	8415
63	220.70	3.90	20	2.18	8717
63	221.19	4.06	20	2.25	6348
63	221.69	4.17	20	2.32	6428
63	222.21	3.90	20	2.18	8013
63	222.67	3.86	20	2.156	8904
63	223.23	3.86	20	2.156	8045
63	223.69	3.86	20	2.156	7857
63	224.18	3.86	20	2.156	8487
63	224.70	3.98	20	2.203	8290

63	225.20	3.86	20	2.156	8271
63	225.72	3.86	20	2.156	8461
63	225.72	3.86	20	2.156	8352
63	226.21	3.86	20	2.156	8108
63	226.71	3.90	20	2.18	8863
63	227.26	3.98	20	2.203	8674
63	227.72	3.98	20	2.203	8382
63	228.15	4.02	20	2.227	8225
63	228.74	4.02	20	2.227	8085
63	229.20	4.17	20	2.32	6339
63	229.72	4.45	20	2.461	5922
63	230.22	4.09	20	2.273	7578
63	230.77	4.06	20	2.25	7748
63	231.23	4.02	20	2.227	8332
63	231.76	4.06	20	2.25	8704
63	232.25	4.06	20	2.25	8905
63	232.81	4.06	20	2.25	8201
64	0.39	4.45	22	2.461	3044
64	0.92	4.57	22	2.508	3801
64	1.38	4.33	22	2.391	2437
64	1.90	4.17	22	2.32	3966
64	2.43	4.21	22	2.344	2713
64	2.89	4.21	22	2.344	3658
64	3.41	4.17	22	2.32	3482
64	4.00	4.57	22	2.508	2770
64	4.46	4.29	22	2.367	3623
64	4.92	4.17	22	2.32	3961
64	5.45	4.13	22	2.297	3985
64	5.94	4.13	22	2.297	4101
64	6.40	4.02	22	2.227	5618
64	6.92	4.02	22	2.227	4935
64	7.41	4.06	22	2.25	5411
64	7.91	4.06	22	2.25	5821
64	8.43	3.90	22	2.18	4811
64	8.96	4.02	22	2.227	4743
64	9.51	4.06	22	2.25	5041
64	9.97	4.06	22	2.25	5810
64	10.43	3.98	22	2.203	4252
64	10.96	4.06	22	2.25	4994
64	11.42	4.02	22	2.227	5223
64	11.94	4.33	22	2.391	4099
64	12.40	4.17	22	2.32	3676
64	12.89	3.98	22	2.203	5387
64	13.39	3.98	22	2.203	5766
64	13.94	3.90	22	2.18	5396
64	14.40	4.06	22	2.25	6447
64	14.90	4.02	22	2.227	6864

64	15.45	4.06	22	2.25	4410
64	15.94	3.98	22	2.203	3966
64	16.40	4.02	22	2.227	4466
64	16.96	4.02	22	2.227	5986
64	17.42	4.13	22	2.297	4065
64	17.98	4.13	22	2.297	3612
64	18.44	4.17	22	2.32	4085
64	18.93	4.21	22	2.344	4718
64	19.49	4.17	22	2.32	4195
64	20.01	4.49	22	2.484	2664
64	20.44	4.49	22	2.484	3277
64	20.96	4.17	22	2.32	3035
64	21.46	4.21	22	2.344	3343
64	21.95	4.17	22	2.32	4060
64	22.47	4.29	22	2.367	2834
64	23.00	4.29	22	2.367	2681
64	23.49	4.21	22	2.344	3557
64	23.92	4.17	22	2.32	3222
64	24.48	4.21	22	2.344	3521
64	24.93	4.21	22	2.344	3639
64	25.43	4.17	22	2.32	3892
64	25.98	4.13	22	2.297	4131
64	26.44	4.21	22	2.344	4123
64	27.03	4.17	22	2.32	4939
64	27.49	4.29	22	2.367	4846
64	27.99	4.33	22	2.391	3719
64	28.51	4.21	22	2.344	4235
64	28.94	4.09	22	2.273	3464
64	29.46	4.21	22	2.344	5535
64	29.95	4.21	22	2.344	4672
64	30.48	4.37	22	2.414	5441
64	31.00	4.37	22	2.414	6960
64	31.53	4.06	22	2.25	3414
64	32.05	4.02	22	2.227	5275
64	32.61	4.02	22	2.227	3780
64	33.07	4.06	22	2.25	5327
64	33.56	4.02	22	2.227	4512
64	34.06	4.06	22	2.25	4685
64	34.55	4.06	22	2.25	5269
64	35.10	4.06	22	2.25	4413
64	35.63	4.17	22	2.32	4654
64	36.02	4.33	22	2.391	2839
64	36.55	4.29	22	2.367	4672
64	37.01	4.13	22	2.297	5448
64	37.53	4.09	22	2.273	4837
64	38.09	4.09	22	2.273	5049
64	38.55	4.06	22	2.25	4855

64	39.14	4.02	22	2.227	3797
64	39.57	4.06	22	2.25	4717
64	40.12	4.02	22	2.227	4860
64	40.58	4.02	22	2.227	5213
64	41.04	4.06	22	2.25	4682
64	41.57	4.06	22	2.25	4587
64	42.03	3.98	22	2.203	4881
64	42.55	4.06	22	2.25	3847
64	43.08	4.06	22	2.25	4479
64	43.57	4.02	22	2.227	2577
64	44.06	4.17	22	2.32	2188
64	44.59	4.09	22	2.273	3730
64	45.11	3.86	22	2.156	4365
64	45.60	3.86	22	2.156	3305
64	46.10	3.82	22	2.133	3244
64	46.59	3.78	22	2.109	3799
64	47.15	3.74	22	2.086	3982
64	47.60	3.78	22	2.109	3589
64	48.10	3.54	22	1.992	5777
64	48.65	3.58	22	2.016	5794
64	49.08	3.62	22	2.039	5632
64	49.67	3.62	22	2.039	5483
64	50.13	3.62	22	2.039	6637
64	50.66	3.62	22	2.039	6901
64	51.15	3.70	22	2.063	8187
64	51.67	3.78	22	2.109	6864
64	52.13	3.98	22	2.203	5795
64	52.66	3.86	22	2.156	6849
64	53.05	3.82	22	2.133	7835
64	53.61	3.78	22	2.109	8374
64	54.10	3.78	22	2.109	8625
64	54.63	3.78	22	2.109	9125
64	55.15	3.78	22	2.109	9981
64	55.64	3.78	22	2.109	9333
64	56.17	3.74	22	2.086	9461
64	56.63	3.74	22	2.086	8928
64	57.09	3.74	22	2.086	8989
64	57.58	3.78	22	2.109	9532
64	58.14	3.70	22	2.063	8708
64	58.69	3.62	22	2.039	8763
64	59.25	3.74	22	2.086	9134
64	59.68	3.74	22	2.086	8883
64	60.14	3.98	22	2.203	6453
64	60.73	4.02	22	2.227	6248
64	61.25	3.86	22	2.156	7793
64	61.71	3.78	22	2.109	8314
64	62.24	3.78	22	2.109	8524

64	62.66	3.82	22	2.133	8376
64	63.22	3.82	22	2.133	8359
64	63.75	3.82	22	2.133	8424
64	64.24	3.86	22	2.156	8951
64	64.70	3.86	22	2.156	8088
64	65.19	3.86	22	2.156	8781
64	65.72	3.82	22	2.133	8287
64	66.21	3.82	22	2.133	7734
64	66.73	3.78	22	2.109	8195
64	67.36	3.62	22	2.039	8332
64	67.81	3.58	22	2.016	8090
64	68.24	3.78	22	2.109	6410
64	68.73	3.74	22	2.086	6436
64	69.26	3.50	22	1.969	7764
64	69.69	3.50	22	1.969	8462
64	70.24	3.46	22	1.945	8249
64	70.28	3.46	22	1.945	8303
64	70.73	3.43	22	1.922	8290
64	71.19	3.35	22	1.898	8652
64	71.75	3.35	22	1.898	8383
64	72.21	3.35	22	1.898	8018
64	72.70	3.31	22	1.875	8471
64	73.26	3.31	22	1.875	8875
64	73.72	3.27	22	1.852	8595
64	74.21	3.31	22	1.875	9090
64	74.70	3.31	22	1.875	8104
64	75.23	3.27	22	1.852	8338
64	75.75	3.27	22	1.852	8447
64	76.15	3.35	22	1.898	6876
64	76.67	3.54	22	1.992	6583
64	77.20	3.27	22	1.852	8314
64	77.69	3.23	22	1.828	8466
64	78.22	3.27	22	1.852	8389
64	78.71	3.27	22	1.852	5995
64	79.13	3.46	22	1.945	6325
64	79.69	3.43	22	1.922	6793
64	80.22	3.50	22	1.969	6062
64	80.71	3.50	22	1.969	5260
64	81.27	3.50	22	1.969	5447
64	81.73	3.50	22	1.969	4312
64	82.22	3.35	22	1.898	3858
64	82.71	3.70	22	2.063	3543
64	83.23	3.35	22	1.898	4117
64	83.79	3.23	22	1.828	7135
64	84.35	3.27	22	1.852	7743
64	84.78	3.27	22	1.852	8942
64	85.30	3.31	22	1.875	8406

64	85.83	3.31	22	1.875	8354
64	86.25	3.46	22	1.945	7793
64	86.78	3.27	22	1.852	5871
64	87.30	3.35	22	1.898	6880
64	87.76	3.43	22	1.922	6443
64	88.25	3.35	22	1.898	6322
64	88.85	3.43	22	1.922	4972
64	89.30	3.58	22	2.016	3712
64	89.76	3.43	22	1.922	4162
64	90.29	3.50	22	1.969	3839
64	90.81	4.02	22	2.227	3030
64	91.37	3.62	22	2.039	4009
64	91.90	3.62	22	2.039	4420
64	92.36	3.62	22	2.039	4108
64	92.85	3.62	22	2.039	3952
64	93.31	3.62	22	2.039	3403
64	93.83	3.74	22	2.086	4120
64	94.26	3.70	22	2.063	5212
64	94.82	3.74	22	2.086	5390
64	95.34	3.74	22	2.086	5226
64	95.90	3.70	22	2.063	5177
64	96.42	3.74	22	2.086	3763
64	96.88	3.70	22	2.063	4340
64	97.44	3.74	22	2.086	3814
64	97.87	3.62	22	2.039	4739
64	98.46	3.70	22	2.063	3487
64	98.88	3.86	22	2.156	3911
64	99.48	3.74	22	2.086	3021
64	99.93	3.58	22	2.016	5143
64	100.16	4.21	22	2.344	14152
64	100.72	4.33	22	2.391	12960
64	101.18	4.17	22	2.32	12482
64	101.67	4.33	22	2.391	12318
64	102.13	4.09	22	2.273	11964
64	102.43	3.27	22	1.852	6220
64	102.95	3.27	22	1.852	7095
64	103.35	3.27	22	1.852	5773
64	103.90	3.27	22	1.852	6196
64	104.46	3.23	22	1.828	7188
64	104.92	3.19	22	1.805	7510
64	105.51	3.27	22	1.852	7325
64	105.97	3.11	22	1.781	6106
64	106.50	3.19	22	1.805	6762
64	106.96	3.43	22	1.922	6233
64	107.45	3.23	22	1.828	6676
64	107.97	3.19	22	1.805	6981
64	108.40	3.27	22	1.852	6740

64	108.89	3.27	22	1.852	5775
64	109.45	3.31	22	1.875	5074
64	109.97	3.31	22	1.875	4635
64	110.43	3.50	22	1.969	3135
64	110.99	3.54	22	1.992	3720
64	111.48	3.43	22	1.922	3333
64	112.01	3.58	22	2.016	3999
64	112.50	3.62	22	2.039	4674
64	112.99	3.54	22	1.992	4459
64	113.48	3.50	22	1.969	2978
64	113.98	3.58	22	2.016	4074
64	114.50	3.50	22	1.969	4974
64	114.99	3.70	22	2.063	3967
64	115.52	3.50	22	1.969	4928
64	116.01	3.43	22	1.922	5512
64	116.47	3.35	22	1.898	5285
64	116.93	3.31	22	1.875	4673
64	117.49	3.35	22	1.898	6512
64	117.98	3.35	22	1.898	7231
64	118.50	3.35	22	1.898	6539
64	119.03	3.27	22	1.852	6963
64	119.49	3.27	22	1.852	7906
64	120.01	3.27	22	1.852	7364
64	120.54	3.27	22	1.852	8705
64	120.96	3.19	22	1.805	7435
64	121.52	3.27	22	1.852	7695
64	122.01	3.11	22	1.781	7705
64	122.57	3.07	22	1.758	8235
64	123.10	3.27	22	1.852	7843
64	123.52	3.03	22	1.734	8612
64	123.98	3.03	22	1.734	9512
64	124.54	3.03	22	1.734	8913
64	125.07	2.95	22	1.688	8304
64	125.56	2.99	22	1.711	9176
64	126.05	2.91	22	1.664	7654
64	126.61	2.91	22	1.664	9223
64	127.03	2.91	22	1.664	9718
64	127.56	2.95	22	1.688	9205
64	128.05	2.95	22	1.688	8449
64	128.58	2.95	22	1.688	8197
64	129.07	3.03	22	1.734	7001
64	129.56	3.03	22	1.734	7376
64	130.02	3.03	22	1.734	5704
64	130.61	3.03	22	1.734	5634
64	131.14	3.23	22	1.828	6061
64	131.56	3.27	22	1.852	5252
64	132.12	3.23	22	1.828	5056

64	132.61	3.31	22	1.875	4526
64	133.10	3.43	22	1.922	4630
64	133.63	3.50	22	1.969	6436
64	134.15	3.50	22	1.969	5840
64	134.65	3.62	22	2.039	5974
64	135.07	3.58	22	2.016	5394
64	135.60	3.50	22	1.969	6168
64	136.12	3.58	22	2.016	7118
64	136.71	3.54	22	1.992	6700
64	137.20	3.54	22	1.992	5724
64	137.66	3.58	22	2.016	6490
64	138.19	3.46	22	1.945	5598
64	138.71	3.54	22	1.992	6104
64	139.24	3.58	22	2.016	4744
64	139.63	3.46	22	1.945	6431
64	140.09	3.43	22	1.922	6457
64	140.62	3.43	22	1.922	6346
64	141.11	3.43	22	1.922	6663
64	141.63	3.43	22	1.922	6073
64	142.16	3.46	22	1.945	6458
64	142.62	3.35	22	1.898	4645
64	143.18	3.35	22	1.898	4592
64	143.60	3.43	22	1.922	6336
64	144.13	3.35	22	1.898	4111
64	144.72	3.31	22	1.875	3852
64	145.18	3.23	22	1.828	3911
64	145.67	3.11	22	1.781	3905
64	146.10	3.19	22	1.805	4582
64	146.62	3.11	22	1.781	5734
64	147.15	3.19	22	1.805	4952
64	147.64	3.03	22	1.734	6702
64	148.10	3.03	22	1.734	6788
64	148.56	3.03	22	1.734	8393
64	149.11	3.03	22	1.734	7444
64	149.67	3.03	22	1.734	7115
64	150.13	3.03	22	1.734	8414
64	150.66	3.03	22	1.734	8236
64	151.18	3.03	22	1.734	8390
64	151.61	3.11	22	1.781	8933
64	152.17	3.07	22	1.758	7791
64	152.72	3.07	22	1.758	9029
64	153.22	3.11	22	1.781	7143
64	153.71	3.35	22	1.898	5823
64	154.10	3.27	22	1.852	7757
64	154.63	3.23	22	1.828	8396
64	155.15	3.27	22	1.852	7595
64	155.74	3.31	22	1.875	7164

64	156.20	3.27	22	1.852	7886
64	156.76	3.23	22	1.828	6375
64	157.25	3.23	22	1.828	7696
64	157.71	3.23	22	1.828	7621
64	158.27	3.23	22	1.828	7619
64	158.76	3.27	22	1.852	8045
64	159.19	3.27	22	1.852	8659
64	159.68	3.23	22	1.828	7348
64	160.20	3.31	22	1.875	8196
64	160.73	3.31	22	1.875	7324
64	161.15	3.35	22	1.898	7495
64	161.71	3.50	22	1.969	6255
64	162.20	3.31	22	1.875	8435
64	162.73	3.31	22	1.875	8657
64	163.29	3.27	22	1.852	8630
64	163.68	3.31	22	1.875	8348
64	164.24	3.27	22	1.852	8742
64	164.67	3.23	22	1.828	7316
64	165.19	3.23	22	1.828	8730
64	165.72	3.27	22	1.852	6572
64	166.21	3.31	22	1.875	6468
64	166.73	3.27	22	1.852	6872
64	167.22	3.27	22	1.852	7982
64	167.68	3.23	22	1.828	7455
64	168.21	3.23	22	1.828	6638
64	168.73	3.27	22	1.852	3510
64	169.19	3.35	22	1.898	5171
64	169.72	3.58	22	2.016	4228
64	170.24	3.31	22	1.875	5556
64	170.83	3.35	22	1.898	3883
64	171.33	3.19	22	1.805	2680
64	171.75	2.99	22	1.711	3181
64	172.28	3.07	22	1.758	3737
64	172.74	2.91	22	1.664	2130
64	173.33	3.27	22	1.852	3328
64	173.75	3.23	22	1.828	5274
64	174.25	3.27	22	1.852	3786
64	174.77	3.35	22	1.898	5589
64	175.26	3.31	22	1.875	6190
64	175.82	3.43	22	1.922	7527
64	176.31	3.43	22	1.922	7026
64	176.84	3.50	22	1.969	8068
64	177.30	3.58	22	2.016	7031
64	177.82	3.70	22	2.063	6429
64	178.31	3.50	22	1.969	7750
64	178.74	3.50	22	1.969	8709
64	179.30	3.50	22	1.969	8503

64	179.82	3.46	22	1.945	7475
64	180.35	3.46	22	1.945	8676
64	180.84	3.50	22	1.969	9042
64	181.27	3.46	22	1.945	8728
64	181.82	3.46	22	1.945	9476
64	182.38	3.50	22	1.969	9545
64	182.81	3.46	22	1.945	9217
64	183.30	3.46	22	1.945	9635
64	183.79	3.43	22	1.922	9276
64	184.35	3.43	22	1.922	8440
64	184.84	3.43	22	1.922	9319
64	185.37	3.54	22	1.992	7575
64	185.86	3.58	22	2.016	7382
64	186.35	3.31	22	1.875	8868
64	186.88	3.35	22	1.898	9102
64	187.37	3.31	22	1.875	8684
64	187.86	3.31	22	1.875	8174
64	188.35	3.35	22	1.898	8720
64	188.81	3.35	22	1.898	8429
64	189.34	3.46	22	1.945	8970
64	189.86	3.43	22	1.922	8268
64	190.35	3.43	22	1.922	7484
64	190.85	3.46	22	1.945	8184
64	191.37	3.50	22	1.969	8271
64	191.80	3.50	22	1.969	8330
64	192.36	3.54	22	1.992	8152
64	192.85	3.54	22	1.992	7885
64	193.34	3.62	22	2.039	7389
64	193.90	3.58	22	2.016	6757
64	194.39	3.46	22	1.945	7861
64	194.91	3.43	22	1.922	7752
64	195.31	3.43	22	1.922	7916
64	195.90	3.35	22	1.898	7810
64	196.39	3.43	22	1.922	7917
64	196.95	3.35	22	1.898	7698
64	197.41	3.31	22	1.875	8248
64	197.97	3.27	22	1.852	7951
64	198.39	3.27	22	1.852	8389
64	198.88	3.27	22	1.852	8981
64	199.41	3.35	22	1.898	8251
64	199.97	3.31	22	1.875	8100
64	200.43	3.31	22	1.875	7947
64	200.95	3.31	22	1.875	8291
64	201.44	3.35	22	1.898	7024
64	201.97	3.35	22	1.898	7426
64	202.43	3.23	22	1.828	8312
64	202.95	3.23	22	1.828	8853

64	203.44	3.23	22	1.828	8512
64	203.94	3.23	22	1.828	7560
64	204.49	3.11	22	1.781	8368
64	204.99	3.19	22	1.805	8378
64	205.48	3.19	22	1.805	8751
64	205.94	3.19	22	1.805	8705
64	206.36	3.19	22	1.805	8588
64	206.89	3.19	22	1.805	8544
64	207.45	3.27	22	1.852	8589
64	207.87	3.23	22	1.828	9388
64	208.40	3.23	22	1.828	8618
64	208.96	3.27	22	1.852	8937
64	209.45	3.43	22	1.922	7124
64	209.97	3.46	22	1.945	6243
64	210.43	3.43	22	1.922	7773
64	210.96	3.35	22	1.898	8350
64	211.48	3.35	22	1.898	9136
64	211.98	3.35	22	1.898	9067
64	212.53	3.46	22	1.945	7726
64	213.06	3.35	22	1.898	7928
64	213.55	3.43	22	1.922	7427
64	213.94	3.46	22	1.945	4590
64	214.44	3.46	22	1.945	3769
64	215.03	3.62	22	2.039	2966
64	215.58	3.82	22	2.133	2808
64	216.08	3.98	22	2.203	4333
64	216.54	3.86	22	2.156	3689
64	217.13	3.98	22	2.203	4456
64	217.55	4.06	22	2.25	3131
64	218.11	4.09	22	2.273	4018
64	218.50	3.98	22	2.203	4566
64	219.06	3.90	22	2.18	5082
64	219.49	3.90	22	2.18	4539
64	220.05	3.86	22	2.156	3863
64	220.51	3.90	22	2.18	4512
64	221.03	3.86	22	2.156	4195
64	221.52	3.82	22	2.133	3558
64	222.08	3.86	22	2.156	5293
64	222.57	3.98	22	2.203	3249
64	223.13	4.02	22	2.227	4733
64	223.62	3.90	22	2.18	4848
64	224.08	4.02	22	2.227	4340
64	224.51	4.06	22	2.25	3329
64	225.10	4.09	22	2.273	5568
64	225.52	4.09	22	2.273	4533
64	226.08	4.21	22	2.344	3328
64	226.51	4.02	22	2.227	3709

64	227.10	3.90	22	2.18	5022
64	227.56	4.02	22	2.227	4620
64	228.18	4.09	22	2.273	4307
64	228.64	3.98	22	2.203	3871
64	229.10	3.98	22	2.203	5048
64	229.63	3.98	22	2.203	3654
64	230.18	3.98	22	2.203	2813
64	230.58	3.90	22	2.18	3699
64	231.07	3.90	22	2.18	3236
64	231.53	3.90	22	2.18	2280
64	232.12	3.70	22	2.063	3112
64	232.64	3.62	22	2.039	3183
64	233.10	3.74	22	2.086	4228
65	0.59	3.78	24	2.109	8649
65	1.02	3.78	24	2.109	9132
65	1.57	3.78	24	2.109	9293
65	2.13	3.78	24	2.109	8506
65	2.56	3.74	24	2.086	8553
65	3.12	3.70	24	2.063	8406
65	3.54	3.78	24	2.109	7679
65	4.10	3.70	24	2.063	7684
65	4.63	3.70	24	2.063	7748
65	5.09	3.70	24	2.063	7128
65	5.58	3.74	24	2.086	6350
65	6.14	3.74	24	2.086	6924
65	6.66	3.74	24	2.086	7497
65	7.22	3.78	24	2.109	7310
65	7.71	4.02	24	2.227	4319
65	8.20	3.98	24	2.203	5466
65	8.66	3.78	24	2.109	6398
65	9.22	3.74	24	2.086	7703
65	9.65	3.74	24	2.086	7631
65	10.10	3.62	24	2.039	7913
65	10.63	3.62	24	2.039	9201
65	11.12	3.70	24	2.063	9169
65	11.68	3.62	24	2.039	9062
65	12.24	3.74	24	2.086	8481
65	12.70	3.74	24	2.086	8789
65	13.22	3.70	24	2.063	8455
65	13.65	3.74	24	2.086	8426
65	14.21	3.70	24	2.063	8277
65	14.70	3.74	24	2.086	8473
65	15.19	3.74	24	2.086	8422
65	15.62	3.90	24	2.18	6253
65	16.14	4.02	24	2.227	6257
65	16.57	3.86	24	2.156	7483
65	17.19	3.74	24	2.086	8406

65	17.62	3.74	24	2.086	7735
65	18.14	3.70	24	2.063	7721
65	18.67	3.62	24	2.039	7989
65	19.26	3.58	24	2.016	8016
65	19.78	3.54	24	1.992	7951
65	20.18	3.50	24	1.969	7826
65	20.67	3.46	24	1.945	7569
65	21.23	3.43	24	1.922	8772
65	21.75	3.35	24	1.898	8543
65	22.24	3.35	24	1.898	9107
65	22.74	3.43	24	1.922	7773
65	23.29	3.31	24	1.875	8026
65	23.75	3.50	24	1.969	6763
65	24.28	3.43	24	1.922	7132
65	24.77	3.35	24	1.898	8892
65	25.30	3.31	24	1.875	8227
65	25.82	3.23	24	1.828	8784
65	26.28	3.23	24	1.828	8238
65	26.84	3.23	24	1.828	9050
65	27.36	3.19	24	1.805	8788
65	27.76	3.11	24	1.781	8632
65	28.22	3.19	24	1.805	8357
65	28.71	3.19	24	1.805	8829
65	29.27	3.19	24	1.805	9114
65	29.79	3.19	24	1.805	8721
65	30.25	3.19	24	1.805	9165
65	30.74	3.19	24	1.805	8866
65	31.27	3.23	24	1.828	8584
65	31.76	3.35	24	1.898	7881
65	32.28	3.46	24	1.945	6907
65	32.81	3.43	24	1.922	9502
65	33.33	3.35	24	1.898	8831
65	33.79	3.31	24	1.875	9487
65	34.32	3.27	24	1.852	9150
65	34.84	3.31	24	1.875	9466
65	35.33	3.23	24	1.828	8309
65	35.76	3.27	24	1.852	8229
65	36.32	3.27	24	1.852	9250
65	36.81	3.27	24	1.852	8913
65	37.34	3.31	24	1.875	9031
65	37.86	3.43	24	1.922	8992
65	38.42	3.35	24	1.898	8825
65	38.85	3.35	24	1.898	9042
65	39.34	3.43	24	1.922	9182
65	39.86	3.58	24	2.016	7694
65	40.39	3.70	24	2.063	7303
65	40.91	3.50	24	1.969	8983

65	41.44	3.50	24	1.969	9060
65	41.99	3.46	24	1.945	9094
65	42.42	3.43	24	1.922	8623
65	42.85	3.46	24	1.945	8953
65	43.37	3.46	24	1.945	9200
65	43.93	3.35	24	1.898	9882
65	44.46	3.35	24	1.898	8768
65	44.91	3.31	24	1.875	9053
65	45.44	3.35	24	1.898	8785
65	45.90	3.35	24	1.898	8827
65	46.39	3.35	24	1.898	8833
65	46.85	3.35	24	1.898	8919
65	47.41	3.35	24	1.898	8097
65	47.83	3.70	24	2.063	5246
65	48.43	3.62	24	2.039	5386
65	48.88	3.35	24	1.898	8166
65	49.41	3.46	24	1.945	8857
65	49.97	3.43	24	1.922	7888
65	50.46	3.43	24	1.922	8181
65	50.95	3.46	24	1.945	7852
65	51.41	3.46	24	1.945	8549
65	51.90	3.50	24	1.969	8865
65	52.49	3.58	24	2.016	8646
65	52.92	3.58	24	2.016	8099
65	53.41	3.58	24	2.016	8042
65	53.90	3.54	24	1.992	7954
65	54.49	3.50	24	1.969	8697
65	55.02	3.50	24	1.969	8054
65	55.41	3.58	24	2.016	8372
65	55.94	3.70	24	2.063	7336
65	56.43	3.70	24	2.063	6987
65	56.92	3.46	24	1.945	7691
65	57.41	3.46	24	1.945	8234
65	57.94	3.46	24	1.945	8512
65	58.46	3.46	24	1.945	9029
65	58.99	3.46	24	1.945	8949
65	59.51	3.35	24	1.898	8386
65	60.04	3.35	24	1.898	9211
65	60.43	3.31	24	1.875	8943
65	61.02	3.31	24	1.875	8897
65	61.45	3.35	24	1.898	8528
65	61.98	3.35	24	1.898	7866
65	62.40	3.35	24	1.898	7973
65	62.93	3.43	24	1.922	7734
65	63.48	3.35	24	1.898	8169
65	64.01	3.50	24	1.969	6225
65	64.57	3.46	24	1.945	7908

65	64.99	3.35	24	1.898	8110
65	65.52	3.35	24	1.898	8532
65	66.08	3.27	24	1.852	8780
65	66.50	3.31	24	1.875	8553
65	66.99	3.31	24	1.875	8563
65	67.52	3.31	24	1.875	8271
65	67.98	3.31	24	1.875	8466
65	68.57	3.27	24	1.852	8180
65	69.13	3.31	24	1.875	8323
65	69.52	3.31	24	1.875	8518
65	70.05	3.31	24	1.875	8386
65	70.47	3.31	24	1.875	8372
65	71.00	3.27	24	1.852	8020
65	71.00	3.27	24	1.852	7996
65	71.52	3.31	24	1.875	8066
65	72.01	3.50	24	1.969	6660
65	72.57	3.43	24	1.922	7299
65	73.00	3.35	24	1.898	8279
65	73.56	3.31	24	1.875	8222
65	74.02	3.31	24	1.875	8655
65	74.54	3.31	24	1.875	7807
65	74.93	3.31	24	1.875	8444
65	75.49	3.35	24	1.898	8418
65	76.05	3.31	24	1.875	8648
65	76.51	3.27	24	1.852	8954
65	77.00	3.27	24	1.852	8125
65	77.56	3.27	24	1.852	8238
65	77.99	3.19	24	1.805	8622
65	78.61	3.23	24	1.828	8998
65	79.07	3.23	24	1.828	9214
65	79.66	3.27	24	1.852	8852
65	80.05	3.43	24	1.922	6847
65	80.54	3.19	24	1.805	7619
65	81.00	3.07	24	1.758	8242
65	81.56	3.03	24	1.734	9348
65	82.09	2.99	24	1.711	9303
65	82.58	2.99	24	1.711	9299
65	83.07	3.07	24	1.758	4424
65	83.56	3.11	24	1.781	4717
65	84.09	3.11	24	1.781	3958
65	84.65	3.07	24	1.758	4290
65	85.17	3.07	24	1.758	3652
65	85.63	3.07	24	1.758	4092
65	86.09	3.03	24	1.734	3479
65	86.65	3.31	24	1.875	3058
65	87.14	3.07	24	1.758	4529
65	87.66	2.99	24	1.711	4528

65	88.09	3.07	24	1.758	4518
65	88.58	2.99	24	1.711	4777
65	89.07	3.07	24	1.758	5084
65	89.63	3.07	24	1.758	4455
65	90.12	3.07	24	1.758	4079
65	90.58	3.11	24	1.781	4389
65	91.14	3.07	24	1.758	4647
65	91.54	3.11	24	1.781	5190
65	92.16	3.11	24	1.781	4413
65	92.65	3.19	24	1.805	4717
65	93.18	3.23	24	1.828	4553
65	93.67	3.23	24	1.828	4158
65	94.13	3.23	24	1.828	4706
65	94.59	3.46	24	1.945	3939
65	95.01	3.23	24	1.828	5306
65	95.60	3.23	24	1.828	4485
65	96.10	3.31	24	1.875	5202
65	96.59	3.19	24	1.805	5328
65	97.05	3.23	24	1.828	6063
65	97.64	3.23	24	1.828	6882
65	98.16	3.23	24	1.828	6669
65	98.69	3.27	24	1.852	6958
65	99.11	3.23	24	1.828	6580
65	99.57	3.74	24	2.086	2427
65	100.16	3.50	24	1.969	345
65	100.66	3.35	24	1.898	-309
65	101.21	3.58	24	2.016	1232
65	101.71	3.70	24	2.063	1496
65	102.20	3.43	24	1.922	4868
65	102.69	3.74	24	2.086	5441
65	103.18	3.35	24	1.898	5212
65	103.77	3.31	24	1.875	5170
65	104.23	3.31	24	1.875	5406
65	104.72	3.27	24	1.852	5243
65	105.18	3.27	24	1.852	5225
65	105.74	3.23	24	1.828	5776
65	106.17	3.27	24	1.852	6487
65	106.73	3.23	24	1.828	8039
65	107.15	3.31	24	1.875	6277
65	107.71	3.23	24	1.828	6477
65	108.17	3.31	24	1.875	6402
65	108.69	3.31	24	1.875	5733
65	109.22	3.31	24	1.875	6156
65	109.74	3.35	24	1.898	6896
65	110.24	3.46	24	1.945	5935
65	110.63	3.74	24	2.086	6549
65	111.25	3.50	24	1.969	5302

65	111.71	3.50	24	1.969	6522
65	112.24	3.58	24	2.016	6750
65	112.76	3.50	24	1.969	5601
65	113.25	3.58	24	2.016	5439
65	113.75	3.62	24	2.039	4680
65	114.34	3.62	24	2.039	3670
65	114.73	3.58	24	2.016	3474
65	115.26	3.62	24	2.039	4091
65	115.75	3.70	24	2.063	3209
65	116.31	3.62	24	2.039	3462
65	116.80	3.70	24	2.063	3815
65	117.26	3.62	24	2.039	3380
65	117.72	3.62	24	2.039	5324
65	118.21	3.70	24	2.063	5042
65	118.70	4.02	24	2.227	4136
65	119.23	3.74	24	2.086	4396
65	119.75	3.74	24	2.086	4591
65	120.28	3.78	24	2.109	3803
65	120.73	3.74	24	2.086	6241
65	121.26	3.78	24	2.109	4980
65	121.72	3.70	24	2.063	4630
65	122.21	3.70	24	2.063	4716
65	122.74	3.82	24	2.133	4857
65	123.33	3.78	24	2.109	4176
65	123.79	3.62	24	2.039	4575
65	124.25	3.70	24	2.063	6025
65	124.90	3.62	24	2.039	5949
65	125.39	3.62	24	2.039	5790
65	125.79	3.58	24	2.016	7062
65	126.25	3.70	24	2.063	5671
65	126.74	4.02	24	2.227	5849
65	127.20	3.58	24	2.016	5581
65	127.72	3.58	24	2.016	6246
65	128.22	3.54	24	1.992	6505
65	128.84	3.54	24	1.992	4391
65	129.27	3.58	24	2.016	5985
65	129.86	3.50	24	1.969	5130
65	130.41	3.62	24	2.039	6321
65	130.84	3.70	24	2.063	4875
65	131.43	3.70	24	2.063	5628
65	131.89	3.78	24	2.109	5967
65	132.35	3.74	24	2.086	6319
65	132.78	3.74	24	2.086	5865
65	133.33	3.74	24	2.086	6640
65	133.86	3.74	24	2.086	4823
65	134.32	3.82	24	2.133	6198
65	134.81	4.13	24	2.297	6648

65	135.33	3.82	24	2.133	4978
65	135.86	3.78	24	2.109	5516
65	136.32	3.86	24	2.156	5544
65	136.88	4.06	24	2.25	4116
65	137.40	3.82	24	2.133	4553
65	137.89	3.78	24	2.109	5775
65	138.42	3.78	24	2.109	5385
65	138.91	3.82	24	2.133	6546
65	139.50	3.86	24	2.156	5646
65	139.93	3.86	24	2.156	4569
65	140.45	3.78	24	2.109	6168
65	140.88	3.86	24	2.156	6222
65	141.40	3.86	24	2.156	7083
65	141.86	3.86	24	2.156	6050
65	142.39	3.90	24	2.18	5282
65	142.95	4.33	24	2.391	5079
65	143.50	3.90	24	2.18	5495
65	143.96	3.82	24	2.133	5345
65	144.46	3.78	24	2.109	5455
65	144.88	3.82	24	2.133	7082
65	145.54	3.78	24	2.109	6579
65	145.93	3.78	24	2.109	5577
65	146.46	3.78	24	2.109	6856
65	146.95	3.78	24	2.109	5349
65	147.51	3.74	24	2.086	5317
65	148.00	3.74	24	2.086	6440
65	148.43	3.62	24	2.039	5409
65	148.95	3.62	24	2.039	5854
65	149.44	3.62	24	2.039	4388
65	149.93	3.54	24	1.992	5475
65	150.49	3.54	24	1.992	3505
65	151.02	3.82	24	2.133	3131
65	151.48	3.46	24	1.945	4091
65	152.03	3.43	24	1.922	3745
65	152.46	3.27	24	1.852	3560
65	153.05	3.27	24	1.852	4381
65	153.51	3.23	24	1.828	4838
65	154.00	3.23	24	1.828	5111
65	154.63	3.31	24	1.875	4447
65	155.05	3.23	24	1.828	9300
65	155.48	3.27	24	1.852	9417
65	156.04	3.31	24	1.875	9208
65	156.53	3.31	24	1.875	8882
65	157.09	3.58	24	2.016	7231
65	157.58	3.46	24	1.945	7841
65	157.97	3.35	24	1.898	9417
65	158.53	3.31	24	1.875	9598

65	159.06	3.31	24	1.875	9767
65	159.48	3.35	24	1.898	9622
65	160.04	3.31	24	1.875	10106
65	160.53	3.35	24	1.898	9441
65	160.99	3.31	24	1.875	9452
65	161.58	3.31	24	1.875	9019
65	162.01	3.35	24	1.898	8293
65	162.60	3.43	24	1.922	8787
65	163.02	3.35	24	1.898	8550
65	163.52	3.46	24	1.945	8271
65	164.07	3.46	24	1.945	9190
65	164.53	3.50	24	1.969	8421
65	165.03	3.74	24	2.086	7185
65	165.52	3.82	24	2.133	6392
65	165.94	3.70	24	2.063	7962
65	165.94	3.70	24	2.063	8482
65	166.44	3.70	24	2.063	8626
65	167.03	3.74	24	2.086	8664
65	167.52	3.74	24	2.086	8095
65	168.04	3.78	24	2.109	8891
65	168.57	3.82	24	2.133	7777
65	169.09	3.78	24	2.109	8120
65	169.49	3.82	24	2.133	8369
65	170.01	3.86	24	2.156	7444
65	170.51	3.78	24	2.109	8648
65	171.10	3.74	24	2.086	7998
65	171.49	3.74	24	2.086	7801
65	172.01	3.74	24	2.086	8480
65	172.54	3.74	24	2.086	8192
65	173.03	3.90	24	2.18	6916
65	173.59	3.90	24	2.18	5691
65	174.11	3.78	24	2.109	7890
65	174.54	3.70	24	2.063	8136
65	175.10	3.62	24	2.039	7780
65	175.62	3.70	24	2.063	7742
65	176.18	3.70	24	2.063	8273
65	176.71	3.70	24	2.063	8488
65	177.17	3.70	24	2.063	8098
65	177.59	3.70	24	2.063	7491
65	178.12	3.74	24	2.086	8216
65	178.64	3.78	24	2.109	8209
65	179.20	3.78	24	2.109	8391
65	179.69	3.74	24	2.086	7920
65	180.15	3.82	24	2.133	9033
65	180.71	3.86	24	2.156	7354
65	181.17	4.02	24	2.227	6522
65	181.66	4.06	24	2.25	6125

65	182.15	3.82	24	2.133	8209
65	182.68	3.86	24	2.156	8642
65	183.17	3.78	24	2.109	8507
65	183.60	3.78	24	2.109	8542
65	184.12	3.74	24	2.086	8738
65	184.71	3.70	24	2.063	7852
65	185.10	3.70	24	2.063	8594
65	185.66	3.78	24	2.109	8790
65	186.15	3.78	24	2.109	8053
65	186.65	3.82	24	2.133	8189
65	187.17	3.82	24	2.133	8825
65	187.70	3.82	24	2.133	8833
65	188.16	3.82	24	2.133	8433
65	188.65	3.86	24	2.156	9050
65	189.17	4.09	24	2.273	6536
65	189.73	4.09	24	2.273	6746
65	190.19	3.98	24	2.203	8054
65	190.72	3.98	24	2.203	8819
65	191.21	3.98	24	2.203	8596
65	191.73	3.90	24	2.18	8560
65	192.19	3.90	24	2.18	8460
65	192.72	3.98	24	2.203	8771
65	193.18	3.86	24	2.156	8428
65	193.67	3.90	24	2.18	7894
65	194.23	3.86	24	2.156	8189
65	194.62	3.86	24	2.156	8350
65	195.21	3.86	24	2.156	8732
65	195.73	3.98	24	2.203	8682
65	196.23	3.90	24	2.18	8017
65	196.75	3.98	24	2.203	8280
65	197.18	4.06	24	2.25	6439
65	197.74	4.17	24	2.32	5706
65	198.13	3.98	24	2.203	7651
65	198.59	3.90	24	2.18	7267
65	199.18	3.86	24	2.156	8462
65	199.70	3.86	24	2.156	7980
65	200.20	3.78	24	2.109	7973
65	200.66	3.78	24	2.109	8173
65	201.15	3.78	24	2.109	8932
65	201.71	3.78	24	2.109	8540
65	202.26	3.82	24	2.133	8838
65	202.79	3.78	24	2.109	7966
65	203.28	3.82	24	2.133	8517
65	203.77	3.78	24	2.109	8217
65	204.33	3.86	24	2.156	8064
65	204.76	3.90	24	2.18	8179
65	205.28	4.06	24	2.25	6118

65	205.77	4.13	24	2.297	5972
65	206.23	3.98	24	2.203	7864
65	206.76	3.98	24	2.203	8269
65	206.76	3.98	24	2.203	8235
65	207.35	4.02	24	2.227	9003
65	207.81	3.98	24	2.203	8138
65	208.37	4.02	24	2.227	8193
65	208.83	4.02	24	2.227	8750
65	209.35	4.06	24	2.25	8272
65	209.78	4.09	24	2.273	7722
65	210.30	4.06	24	2.25	8119
65	210.76	4.09	24	2.273	7729
65	211.25	4.17	24	2.32	7874
65	211.81	4.13	24	2.297	7295
65	212.30	4.17	24	2.32	8567
65	212.80	4.21	24	2.344	8151
65	213.29	4.41	24	2.438	6198
65	213.85	4.49	24	2.484	5997
65	214.30	4.17	24	2.32	7439
65	214.86	4.09	24	2.273	8565
65	215.32	4.09	24	2.273	8646
65	215.81	4.13	24	2.297	7797
65	216.34	4.13	24	2.297	7302
65	216.83	4.06	24	2.25	7667
65	217.36	4.06	24	2.25	7598
65	217.88	4.06	24	2.25	8326
65	218.31	4.02	24	2.227	8351
65	218.86	4.09	24	2.273	8061
65	219.39	4.06	24	2.25	7918
65	219.82	4.06	24	2.25	8531
65	220.41	4.09	24	2.273	8181
65	220.90	4.13	24	2.297	7627
65	221.39	4.37	24	2.414	6022
65	221.88	4.45	24	2.461	5991
65	222.34	4.21	24	2.344	7284
65	222.80	4.17	24	2.32	7240
65	223.29	4.13	24	2.297	7655
65	223.79	4.13	24	2.297	8160
65	224.31	4.13	24	2.297	7965
65	224.84	4.09	24	2.273	7950
65	225.39	4.13	24	2.297	8360
65	225.89	4.13	24	2.297	8040
65	226.38	4.06	24	2.25	8020
65	226.87	4.13	24	2.297	7531
65	227.43	4.09	24	2.273	7694
65	227.82	4.09	24	2.273	7911
65	228.28	4.21	24	2.344	7463

65	228.84	4.13	24	2.297	7320
65	229.30	4.37	24	2.414	5960
65	229.79	4.65	24	2.555	5625
65	230.38	4.37	24	2.414	6528
65	230.87	4.33	24	2.391	7060
65	231.40	4.29	24	2.367	7529
65	231.86	4.21	24	2.344	7195
65	232.38	4.33	24	2.391	7228
65	232.94	4.29	24	2.367	7133
66	0.49	4.33	26	2.391	8874
66	1.08	4.29	26	2.367	9387
66	1.57	4.29	26	2.367	9659
66	2.03	4.21	26	2.344	9087
66	2.56	4.21	26	2.344	8994
66	3.05	4.33	26	2.391	7831
66	3.71	4.72	26	2.602	6053
66	4.13	4.37	26	2.414	6087
66	4.56	4.17	26	2.32	8062
66	5.18	4.09	26	2.273	8849
66	5.61	4.06	26	2.25	6580
66	6.04	4.06	26	2.25	9118
66	6.59	4.06	26	2.25	8785
66	7.09	4.02	26	2.227	8476
66	7.61	4.06	26	2.25	9015
66	8.10	4.09	26	2.273	8772
66	8.66	4.06	26	2.25	8603
66	9.19	4.13	26	2.297	8712
66	9.68	4.09	26	2.273	9164
66	10.14	4.13	26	2.297	8743
66	10.66	4.17	26	2.32	8875
66	11.12	4.21	26	2.344	8553
66	11.55	4.49	26	2.484	5824
66	12.14	4.41	26	2.438	6428
66	12.60	4.17	26	2.32	8938
66	13.09	4.17	26	2.32	9447
66	13.68	4.09	26	2.273	9333
66	14.07	4.09	26	2.273	9250
66	14.60	4.09	26	2.273	9104
66	15.16	4.09	26	2.273	9065
66	15.62	4.06	26	2.25	9176
66	16.14	4.06	26	2.25	8371
66	16.67	4.06	26	2.25	8263
66	17.13	4.09	26	2.273	8571
66	17.65	4.09	26	2.273	8104
66	18.14	4.13	26	2.297	8181
66	18.67	4.13	26	2.297	7951
66	19.19	4.17	26	2.32	7748

66	19.65	4.57	26	2.508	5205
66	20.14	4.33	26	2.391	6600
66	20.67	4.17	26	2.32	8650
66	21.19	4.13	26	2.297	8075
66	21.65	4.13	26	2.297	7999
66	22.24	4.06	26	2.25	8151
66	22.74	4.02	26	2.227	8430
66	23.16	4.09	26	2.273	8154
66	23.65	4.09	26	2.273	7852
66	24.18	4.02	26	2.227	8670
66	24.67	4.02	26	2.227	8593
66	25.10	3.98	26	2.203	8961
66	25.62	3.98	26	2.203	8238
66	26.12	3.98	26	2.203	8019
66	26.67	3.98	26	2.203	8841
66	27.20	3.98	26	2.203	8060
66	27.66	4.13	26	2.297	6056
66	28.18	4.09	26	2.273	6186
66	28.71	3.86	26	2.156	7987
66	29.10	3.82	26	2.133	8221
66	29.69	3.86	26	2.156	7874
66	30.18	3.82	26	2.133	8407
66	30.71	3.82	26	2.133	8189
66	31.23	3.82	26	2.133	8467
66	31.76	3.82	26	2.133	7892
66	32.32	3.82	26	2.133	7925
66	32.78	3.82	26	2.133	8322
66	33.20	3.86	26	2.156	7796
66	33.73	3.86	26	2.156	8273
66	34.25	3.82	26	2.133	8166
66	34.81	3.90	26	2.18	7670
66	35.27	3.98	26	2.203	8547
66	35.73	4.09	26	2.273	6388
66	36.29	4.02	26	2.227	6933
66	36.71	3.90	26	2.18	8208
66	37.20	3.86	26	2.156	8524
66	37.73	3.86	26	2.156	8718
66	38.25	3.98	26	2.203	8536
66	38.81	3.86	26	2.156	8762
66	39.24	3.86	26	2.156	8369
66	39.80	3.90	26	2.18	7748
66	40.29	3.86	26	2.156	7943
66	40.72	3.98	26	2.203	8870
66	41.24	3.90	26	2.18	8786
66	41.73	3.90	26	2.18	9156
66	42.26	3.98	26	2.203	8755
66	42.75	4.02	26	2.227	8756

66	43.27	3.98	26	2.203	7237
66	43.73	4.33	26	2.391	5826
66	44.26	4.06	26	2.25	6943
66	44.82	3.90	26	2.18	7774
66	45.34	3.90	26	2.18	9025
66	45.80	3.90	26	2.18	8999
66	46.29	3.82	26	2.133	8460
66	46.78	3.82	26	2.133	7991
66	47.28	3.82	26	2.133	8793
66	47.87	3.82	26	2.133	8626
66	48.36	3.82	26	2.133	8445
66	48.79	3.74	26	2.086	8534
66	49.31	3.82	26	2.133	7650
66	49.87	3.74	26	2.086	8223
66	50.30	3.82	26	2.133	7449
66	50.79	3.74	26	2.086	8524
66	51.38	3.82	26	2.133	8716
66	51.80	3.90	26	2.18	6898
66	52.30	4.02	26	2.227	6010
66	52.72	3.82	26	2.133	8000
66	53.28	3.82	26	2.133	7728
66	53.74	3.82	26	2.133	8444
66	54.27	3.74	26	2.086	8789
66	54.82	3.70	26	2.063	8963
66	55.31	3.74	26	2.086	8518
66	55.87	3.70	26	2.063	8534
66	56.27	3.62	26	2.039	8568
66	56.76	3.70	26	2.063	8523
66	57.28	3.70	26	2.063	8442
66	57.84	3.70	26	2.063	8506
66	58.33	3.70	26	2.063	8631
66	58.89	3.70	26	2.063	8944
66	59.32	3.74	26	2.086	8797
66	59.84	3.86	26	2.156	6872
66	60.40	3.86	26	2.156	7169
66	60.93	3.78	26	2.109	9043
66	61.42	3.62	26	2.039	9760
66	61.94	3.62	26	2.039	8672
66	62.37	3.70	26	2.063	9113
66	62.96	3.70	26	2.063	8924
66	63.45	3.70	26	2.063	8372
66	63.91	3.62	26	2.039	8609
66	64.37	3.74	26	2.086	8539
66	64.90	3.74	26	2.086	8820
66	65.39	3.74	26	2.086	8300
66	65.94	3.74	26	2.086	8382
66	66.40	3.62	26	2.039	8819

66	67.03	3.62	26	2.039	7988
66	67.49	3.62	26	2.039	7675
66	67.95	3.82	26	2.133	5982
66	68.44	3.70	26	2.063	7368
66	68.93	3.54	26	1.992	8283
66	69.36	3.54	26	1.992	7805
66	69.91	3.54	26	1.992	8980
66	70.44	3.46	26	1.945	7813
66	70.87	3.46	26	1.945	9234
66	71.42	3.43	26	1.922	8553
66	71.85	3.43	26	1.922	8608
66	72.44	3.43	26	1.922	8177
66	72.93	3.35	26	1.898	8835
66	73.46	3.35	26	1.898	8160
66	73.98	3.35	26	1.898	8514
66	74.38	3.35	26	1.898	8335
66	74.90	3.43	26	1.922	8497
66	75.49	3.43	26	1.922	8148
66	75.89	3.50	26	1.969	7236
66	76.35	3.62	26	2.039	6353
66	76.87	3.31	26	1.875	8463
66	77.36	3.27	26	1.852	9154
66	77.95	3.27	26	1.852	8342
66	78.38	3.27	26	1.852	7989
66	78.81	3.43	26	1.922	7847
66	79.46	3.50	26	1.969	5104
66	79.92	3.35	26	1.898	5108
66	80.41	3.62	26	2.039	5348
66	81.00	3.43	26	1.922	4997
66	81.43	3.50	26	1.969	6116
66	81.96	3.50	26	1.969	7189
66	82.38	3.78	26	2.109	5789
66	82.97	3.58	26	2.016	4601
66	83.53	3.54	26	1.992	5542
66	84.06	3.50	26	1.969	5852
66	84.48	3.54	26	1.992	4382
66	85.01	3.54	26	1.992	4721
66	85.50	3.62	26	2.039	5747
66	86.02	3.86	26	2.156	6764
66	86.52	3.74	26	2.086	6655
66	87.01	3.74	26	2.086	5438
66	87.47	3.70	26	2.063	4914
66	87.93	3.74	26	2.086	5424
66	88.55	3.78	26	2.109	6080
66	89.01	3.78	26	2.109	4909
66	89.47	3.78	26	2.109	6276
66	89.96	3.86	26	2.156	6233

66	90.45	4.29	26	2.367	5959
66	91.04	3.86	26	2.156	5916
66	91.50	3.78	26	2.109	6144
66	92.03	3.74	26	2.086	5742
66	92.59	3.74	26	2.086	5109
66	93.01	3.70	26	2.063	6194
66	93.54	3.70	26	2.063	5583
66	93.93	3.62	26	2.039	5734
66	94.52	3.58	26	2.016	5473
66	95.01	3.54	26	1.992	5710
66	95.51	3.86	26	2.156	8054
66	96.06	3.90	26	2.18	6968
66	96.69	4.02	26	2.227	7841
66	97.15	3.86	26	2.156	5795
66	97.57	3.86	26	2.156	5889
66	98.10	3.54	26	1.992	3672
66	98.49	3.90	26	2.18	4339
66	99.11	3.70	26	2.063	4409
66	99.57	3.70	26	2.063	5810
66	100.10	3.58	26	2.016	5841
66	100.62	3.58	26	2.016	5650
66	101.15	3.74	26	2.086	6426
66	101.64	3.58	26	2.016	6056
66	102.03	3.58	26	2.016	6264
66	102.62	3.58	26	2.016	6745
66	103.02	3.62	26	2.039	6177
66	103.54	3.58	26	2.016	6282
66	104.17	3.43	26	1.922	5952
66	104.66	3.46	26	1.945	5581
66	105.18	3.46	26	1.945	5183
66	105.74	3.46	26	1.945	4262
66	106.27	3.46	26	1.945	3961
66	106.69	3.58	26	2.016	3901
66	107.15	3.31	26	1.875	4953
66	107.64	3.23	26	1.828	5614
66	108.10	3.27	26	1.852	4615
66	108.56	3.23	26	1.828	5607
66	109.19	3.19	26	1.805	6182
66	109.65	3.19	26	1.805	5369
66	110.14	3.50	26	1.969	4293
66	110.70	3.23	26	1.828	6984
66	111.22	3.23	26	1.828	6666
66	111.71	3.27	26	1.852	5136
66	112.17	3.23	26	1.828	5409
66	112.73	3.27	26	1.852	5319
66	113.19	3.23	26	1.828	5199
66	113.68	3.27	26	1.852	6888

66	114.24	3.19	26	1.805	5264
66	114.73	3.50	26	1.969	5932
66	115.22	3.31	26	1.875	7603
66	115.75	3.23	26	1.828	7792
66	116.17	3.27	26	1.852	7233
66	116.67	3.23	26	1.828	8670
66	117.13	3.35	26	1.898	7629
66	117.75	3.23	26	1.828	9128
66	118.21	3.23	26	1.828	9198
66	118.70	3.27	26	1.852	8825
66	119.13	3.27	26	1.852	7654
66	119.72	3.23	26	1.828	8921
66	120.21	3.19	26	1.805	7695
66	120.70	3.19	26	1.805	8048
66	121.19	3.11	26	1.781	7854
66	121.72	3.19	26	1.805	4195
66	122.21	3.11	26	1.781	4364
66	122.77	3.23	26	1.828	3491
66	123.23	3.11	26	1.781	3714
66	123.69	3.27	26	1.852	3612
66	124.28	3.07	26	1.758	4279
66	124.77	3.27	26	1.852	4383
66	125.30	3.43	26	1.922	4027
66	125.69	3.35	26	1.898	4249
66	126.31	3.35	26	1.898	4694
66	126.71	3.27	26	1.852	5597
66	127.23	3.19	26	1.805	6683
66	127.76	3.23	26	1.828	4355
66	128.22	3.35	26	1.898	6059
66	128.71	3.27	26	1.852	5518
66	129.23	3.31	26	1.875	6233
66	129.66	3.35	26	1.898	6354
66	130.28	3.31	26	1.875	6742
66	130.81	3.62	26	2.039	5566
66	131.23	3.35	26	1.898	5058
66	131.73	3.54	26	1.992	8048
66	132.28	3.31	26	1.875	6401
66	132.78	3.43	26	1.922	6914
66	133.30	3.43	26	1.922	6176
66	133.79	3.46	26	1.945	4944
66	134.35	3.46	26	1.945	7053
66	134.74	3.35	26	1.898	5561
66	135.27	3.43	26	1.922	5695
66	135.79	3.43	26	1.922	5709
66	136.35	3.50	26	1.969	6037
66	136.88	3.46	26	1.945	6496
66	137.37	3.31	26	1.875	5783

66	137.83	3.35	26	1.898	5684
66	138.42	3.43	26	1.922	5976
66	138.94	3.54	26	1.992	5203
66	139.34	3.35	26	1.898	5098
66	139.80	3.27	26	1.852	5116
66	140.26	3.35	26	1.898	7544
66	140.81	3.31	26	1.875	4635
66	141.31	3.27	26	1.852	4864
66	141.90	3.23	26	1.828	3875
66	142.36	3.23	26	1.828	4296
66	142.85	3.11	26	1.781	4906
66	143.31	3.03	26	1.734	5001
66	143.83	3.19	26	1.805	4911
66	144.39	2.99	26	1.711	4968
66	144.88	2.95	26	1.688	5528
66	145.34	2.95	26	1.688	4788
66	145.83	2.91	26	1.664	4412
66	146.29	2.83	26	1.641	4895
66	146.85	2.95	26	1.688	3499
66	147.28	2.76	26	1.594	4807
66	147.80	2.68	26	1.547	6307
66	148.29	2.68	26	1.547	5896
66	148.29	2.68	26	1.547	5622
66	148.79	2.72	26	1.57	5663
66	149.34	2.60	26	1.523	5237
66	149.87	2.60	26	1.523	6442
66	150.39	2.60	26	1.523	4827
66	150.92	2.76	26	1.594	8723
66	151.31	2.83	26	1.641	8665
66	151.84	2.80	26	1.617	8170
66	152.43	2.91	26	1.664	8212
66	152.89	3.03	26	1.734	7757
66	153.38	3.19	26	1.805	7892
66	153.77	3.07	26	1.758	7982
66	154.36	3.07	26	1.758	9940
66	154.89	3.19	26	1.805	9333
66	155.45	3.11	26	1.781	8867
66	155.91	3.23	26	1.828	9035
66	156.43	3.27	26	1.852	8739
66	156.92	3.19	26	1.805	8550
66	157.41	3.19	26	1.805	8785
66	157.91	3.23	26	1.828	9248
66	157.94	3.23	26	1.828	8575
66	158.46	3.23	26	1.828	8659
66	158.92	3.27	26	1.852	9119
66	159.45	3.27	26	1.852	8427
66	159.88	3.27	26	1.852	8944

66	160.43	3.31	26	1.875	8827
66	160.89	3.35	26	1.898	7628
66	161.42	3.43	26	1.922	7386
66	161.91	3.31	26	1.875	8576
66	162.47	3.35	26	1.898	8464
66	162.99	3.27	26	1.852	8769
66	163.39	3.27	26	1.852	8428
66	163.88	3.27	26	1.852	9149
66	164.30	3.23	26	1.828	6956
66	164.80	3.31	26	1.875	6487
66	165.42	3.27	26	1.852	8176
66	165.91	3.31	26	1.875	8548
66	166.44	3.31	26	1.875	9007
66	166.90	3.27	26	1.852	9027
66	167.36	3.27	26	1.852	8510
66	167.91	3.35	26	1.898	8336
66	168.44	3.27	26	1.852	8032
66	168.83	3.31	26	1.875	8572
66	169.42	3.35	26	1.898	6719
66	169.95	3.27	26	1.852	8562
66	170.51	3.19	26	1.805	7918
66	171.06	3.31	26	1.875	8488
66	171.42	3.27	26	1.852	8084
66	172.01	3.27	26	1.852	9056
66	172.41	3.27	26	1.852	8813
66	173.03	3.27	26	1.852	8745
66	173.43	3.27	26	1.852	8855
66	173.95	3.31	26	1.875	9054
66	174.44	3.31	26	1.875	9133
66	174.93	3.31	26	1.875	9150
66	175.46	3.35	26	1.898	8769
66	176.05	3.46	26	1.945	8535
66	176.54	3.54	26	1.992	7526
66	177.00	3.54	26	1.992	6306
66	177.43	3.46	26	1.945	6863
66	177.99	3.35	26	1.898	7934
66	178.38	3.35	26	1.898	8450
66	178.94	3.43	26	1.922	8438
66	179.56	3.35	26	1.898	7537
66	180.05	3.27	26	1.852	8695
66	180.51	3.31	26	1.875	8255
66	180.94	3.27	26	1.852	8152
66	181.53	3.31	26	1.875	9357
66	182.02	3.27	26	1.852	8636
66	182.51	3.27	26	1.852	8966
66	182.97	3.27	26	1.852	8718
66	183.43	3.27	26	1.852	8571

66	183.99	3.27	26	1.852	8600
66	184.55	3.31	26	1.875	8689
66	185.04	3.46	26	1.945	7637
66	185.53	3.46	26	1.945	7230
66	186.02	3.31	26	1.875	8404
66	186.58	3.27	26	1.852	9007
66	187.04	3.27	26	1.852	8204
66	187.53	3.27	26	1.852	9029
66	187.99	3.35	26	1.898	9147
66	188.55	3.27	26	1.852	9229
66	188.98	3.23	26	1.828	8732
66	189.53	3.27	26	1.852	8592
66	190.09	3.31	26	1.875	8843
66	190.52	3.27	26	1.852	8844
66	191.01	3.31	26	1.875	9142
66	191.44	3.35	26	1.898	9049
66	191.99	3.35	26	1.898	9000
66	192.55	3.35	26	1.898	8326
66	193.04	3.50	26	1.969	7807
66	193.57	3.50	26	1.969	6711
66	194.09	3.35	26	1.898	8844
66	194.62	3.43	26	1.922	8338
66	195.05	3.31	26	1.875	8734
66	195.64	3.31	26	1.875	8691
66	196.13	3.27	26	1.852	8358
66	196.62	3.27	26	1.852	8512
66	197.15	3.27	26	1.852	8981
66	197.64	3.27	26	1.852	8827
66	198.13	3.23	26	1.828	8374
66	198.62	3.31	26	1.875	8669
66	199.11	3.43	26	1.922	8105
66	199.64	3.35	26	1.898	9043
66	200.10	3.43	26	1.922	8994
66	200.62	3.35	26	1.898	9196
66	201.15	3.46	26	1.945	6841
66	201.71	3.43	26	1.922	8747
66	202.17	3.27	26	1.852	8590
66	202.66	3.23	26	1.828	8866
66	202.66	3.23	26	1.828	9165
66	203.15	3.19	26	1.805	8841
66	203.64	3.23	26	1.828	9092
66	204.13	3.11	26	1.781	8912
66	204.66	3.19	26	1.805	8686
66	205.18	3.11	26	1.781	8116
66	205.64	3.11	26	1.781	9048
66	206.04	3.11	26	1.781	9027
66	206.59	3.23	26	1.828	7293

66	207.15	3.27	26	1.852	8043
66	207.61	3.31	26	1.875	8686
66	208.10	3.35	26	1.898	8991
66	208.66	3.43	26	1.922	8994
66	209.15	3.43	26	1.922	7343
66	209.65	3.46	26	1.945	7104
66	210.10	3.35	26	1.898	8845
66	210.14	3.35	26	1.898	8719
66	210.66	3.31	26	1.875	8333
66	211.15	3.35	26	1.898	8905
66	211.68	3.35	26	1.898	8402
66	212.14	3.43	26	1.922	8213
66	212.70	3.35	26	1.898	8844
66	213.19	3.35	26	1.898	8782
66	213.62	3.43	26	1.922	7848
66	214.14	3.50	26	1.969	8162
66	214.76	3.54	26	1.992	8838
66	215.29	3.58	26	2.016	8011
66	215.81	3.58	26	2.016	8060
66	216.24	3.62	26	2.039	7940
66	216.83	3.74	26	2.086	8038
66	217.29	3.98	26	2.203	6276
66	217.78	3.90	26	2.18	6074
66	218.21	3.78	26	2.109	7950
66	218.73	3.78	26	2.109	8281
66	219.23	3.78	26	2.109	8216
66	219.82	3.74	26	2.086	9134
66	220.24	3.78	26	2.109	8142
66	220.77	3.74	26	2.086	7722
66	221.26	3.74	26	2.086	8914
66	221.75	3.70	26	2.063	8504
66	222.31	3.62	26	2.039	8169
66	222.83	3.74	26	2.086	8753
66	223.36	3.82	26	2.133	7893
66	223.75	3.82	26	2.133	8150
66	224.25	3.82	26	2.133	8305
66	224.77	3.82	26	2.133	7671
66	225.23	3.90	26	2.18	7149
66	225.72	4.09	26	2.273	5653
66	226.18	3.82	26	2.133	8055
66	226.77	3.82	26	2.133	8056
66	227.30	3.86	26	2.156	8185
66	227.89	3.82	26	2.133	8614
66	228.35	3.82	26	2.133	8184
66	228.77	3.82	26	2.133	8664
66	229.33	3.82	26	2.133	7806
66	229.86	3.82	26	2.133	8002

66	230.28	3.86	26	2.156	8356
66	230.84	3.86	26	2.156	8251
66	231.27	3.82	26	2.133	8387
66	231.79	3.86	26	2.156	8388
66	232.38	3.90	26	2.18	8114
66	232.81	3.98	26	2.203	7837
67	0.10	4.17	28	2.305	7812
67	0.62	3.94	28	2.188	6436
67	1.12	3.86	28	2.148	8562
67	1.67	3.86	28	2.148	7450
67	2.23	3.94	28	2.188	6046
67	2.69	4.09	28	2.266	5504
67	3.25	3.86	28	2.148	4236
67	3.61	3.94	28	2.188	4932
67	4.04	4.02	28	2.227	3882
67	4.63	4.02	28	2.227	4088
67	5.09	3.94	28	2.188	5261
67	5.61	3.94	28	2.188	3094
67	6.14	4.17	28	2.305	4711
67	6.73	4.17	28	2.305	3164
67	7.35	4.17	28	2.305	4242
67	7.74	4.09	28	2.266	3588
67	8.23	4.02	28	2.227	5708
67	8.73	4.02	28	2.227	5029
67	9.25	3.94	28	2.188	4115
67	9.68	3.94	28	2.188	3169
67	10.17	3.86	28	2.148	5656
67	10.66	3.86	28	2.148	5442
67	11.19	3.86	28	2.148	4302
67	11.71	3.78	28	2.109	6786
67	12.20	3.78	28	2.109	6663
67	12.73	3.70	28	2.07	5916
67	12.73	3.70	28	2.07	6061
67	13.22	3.70	28	2.07	8038
67	13.71	3.70	28	2.07	7737
67	14.27	3.78	28	2.109	8285
67	14.76	3.78	28	2.109	9293
67	15.29	4.02	28	2.227	8283
67	15.75	3.78	28	2.109	9280
67	16.17	3.70	28	2.07	11419
67	16.67	3.70	28	2.07	11060
67	17.22	3.54	28	1.992	11421
67	17.26	3.54	28	1.992	12039
67	17.72	3.54	28	1.992	11758
67	18.18	3.54	28	1.992	11790
67	18.70	3.46	28	1.953	10903
67	19.32	3.46	28	1.953	12632

67	19.82	3.39	28	1.914	12092
67	20.34	3.39	28	1.914	12751
67	20.83	3.31	28	1.875	12853
67	21.33	3.31	28	1.875	12535
67	21.36	3.31	28	1.875	13669
67	21.82	3.31	28	1.875	13800
67	22.34	3.39	28	1.914	13714
67	22.80	3.46	28	1.953	11948
67	23.36	3.70	28	2.07	10386
67	23.85	3.46	28	1.953	11996
67	24.28	3.39	28	1.914	12795
67	24.77	3.39	28	1.914	14722
67	25.33	3.39	28	1.914	14691
67	25.82	3.31	28	1.875	14199
67	26.35	3.31	28	1.875	14258
67	26.87	3.31	28	1.875	12329
67	27.43	3.23	28	1.836	15344
67	27.79	3.23	28	1.836	13513
67	28.31	3.23	28	1.836	12768
67	28.81	3.23	28	1.836	10879
67	29.36	3.31	28	1.875	10315
67	29.82	3.23	28	1.836	7520
67	30.28	3.31	28	1.875	7345
67	30.81	3.39	28	1.914	7529
67	31.30	3.70	28	2.07	5660
67	31.79	3.46	28	1.953	5846
67	32.35	3.70	28	2.07	4092
67	32.87	3.46	28	1.953	5627
67	33.33	3.46	28	1.953	5328
67	33.83	3.54	28	1.992	6245
67	34.38	3.46	28	1.953	3911
67	34.84	3.62	28	2.031	6510
67	35.37	3.62	28	2.031	5601
67	35.86	3.78	28	2.109	6821
67	36.32	3.62	28	2.031	5303
67	36.84	3.78	28	2.109	6597
67	37.30	3.78	28	2.109	5561
67	37.83	3.62	28	2.031	5717
67	38.45	3.70	28	2.07	6390
67	38.88	3.70	28	2.07	5947
67	39.47	3.78	28	2.109	5626
67	39.93	3.78	28	2.109	6520
67	40.45	3.62	28	2.031	6383
67	40.91	3.39	28	1.914	7804
67	41.47	3.39	28	1.914	7842
67	41.50	3.39	28	1.914	7710
67	42.06	3.39	28	1.914	8768

67	42.49	3.39	28	1.914	8362
67	42.95	3.39	28	1.914	9326
67	43.37	3.39	28	1.914	9006
67	43.96	3.39	28	1.914	10562
67	44.49	3.31	28	1.875	6017
67	44.95	3.39	28	1.914	6174
67	45.51	3.39	28	1.914	6167
67	45.96	3.39	28	1.914	7574
67	46.46	3.31	28	1.875	8875
67	46.92	3.46	28	1.953	6597
67	47.51	3.54	28	1.992	5343
67	47.90	3.39	28	1.914	8617
67	48.46	3.70	28	2.07	7332
67	48.95	3.39	28	1.914	7313
67	49.51	3.39	28	1.914	7279
67	50.03	3.39	28	1.914	7163
67	50.49	3.46	28	1.953	5435
67	50.98	3.39	28	1.914	5108
67	51.48	3.23	28	1.836	7251
67	51.97	3.31	28	1.875	5941
67	52.53	3.31	28	1.875	7911
67	52.99	3.39	28	1.914	7535
67	53.48	3.46	28	1.953	5503
67	53.94	3.31	28	1.875	6271
67	54.56	3.39	28	1.914	7265
67	55.09	3.46	28	1.953	6651
67	55.58	3.62	28	2.031	4604
67	56.10	3.54	28	1.992	3436
67	56.46	3.23	28	1.836	6353
67	56.92	3.39	28	1.914	6617
67	57.41	3.15	28	1.797	7273
67	58.04	3.23	28	1.836	8677
67	58.53	3.31	28	1.875	4900
67	59.09	3.15	28	1.797	7445
67	59.51	3.23	28	1.836	5509
67	60.04	2.99	28	1.719	9323
67	60.47	2.99	28	1.719	9587
67	61.09	2.91	28	1.68	9032
67	61.48	2.99	28	1.719	9307
67	62.01	3.07	28	1.758	5902
67	62.43	3.07	28	1.758	10054
67	62.96	3.23	28	1.836	9608
67	63.55	3.31	28	1.875	9042
67	64.07	3.31	28	1.875	8396
67	64.63	3.23	28	1.836	5381
67	65.06	3.23	28	1.836	10369
67	65.58	3.23	28	1.836	9614

67	66.14	3.23	28	1.836	8354
67	66.54	3.23	28	1.836	7123
67	67.06	3.15	28	1.797	8292
67	67.55	3.15	28	1.797	7655
67	68.08	3.23	28	1.836	10047
67	68.64	3.23	28	1.836	10007
67	69.16	3.23	28	1.836	10864
67	69.59	3.23	28	1.836	11173
67	70.11	3.23	28	1.836	10346
67	70.51	3.23	28	1.836	9045
67	71.03	3.31	28	1.875	9332
67	71.59	3.39	28	1.914	8472
67	72.08	3.31	28	1.875	9152
67	72.57	3.31	28	1.875	9587
67	73.06	3.23	28	1.836	9845
67	73.59	3.23	28	1.836	10836
67	74.02	3.23	28	1.836	11304
67	74.54	3.15	28	1.797	12427
67	75.00	3.15	28	1.797	7921
67	75.59	3.07	28	1.758	8851
67	76.08	3.07	28	1.758	8982
67	76.61	2.99	28	1.719	7399
67	77.07	3.07	28	1.758	11594
67	77.59	3.07	28	1.758	8422
67	78.05	3.07	28	1.758	7616
67	78.58	3.15	28	1.797	3960
67	79.13	3.23	28	1.836	3741
67	79.72	3.23	28	1.836	4627
67	80.15	3.15	28	1.797	3483
67	80.54	3.15	28	1.797	4903
67	81.07	3.07	28	1.758	5016
67	81.63	2.91	28	1.68	5154
67	82.15	2.99	28	1.719	3680
67	82.61	2.99	28	1.719	3214
67	83.10	2.83	28	1.641	4996
67	83.60	2.83	28	1.641	7472
67	84.12	2.83	28	1.641	7375
67	84.68	2.83	28	1.641	9963
67	85.20	2.76	28	1.602	6101
67	85.63	2.99	28	1.719	8072
67	86.19	2.99	28	1.719	7117
67	86.65	2.99	28	1.719	8323
67	87.20	2.91	28	1.68	6715
67	87.63	2.99	28	1.719	6982
67	88.16	3.07	28	1.758	8097
67	88.62	3.07	28	1.758	7344
67	89.11	3.07	28	1.758	7245

67	89.67	3.15	28	1.797	7339
67	90.19	3.15	28	1.797	9434
67	90.65	3.07	28	1.758	7420
67	91.17	3.07	28	1.758	7226
67	91.60	3.15	28	1.797	7395
67	92.19	3.07	28	1.758	5684
67	92.68	3.15	28	1.797	7915
67	93.24	3.15	28	1.797	6191
67	93.70	3.23	28	1.836	7459
67	94.19	3.23	28	1.836	7934
67	94.59	3.15	28	1.797	8350
67	95.11	3.23	28	1.836	7312
67	95.64	3.62	28	2.031	5327
67	96.13	3.46	28	1.953	4482
67	96.69	3.46	28	1.953	5742
67	97.15	3.31	28	1.875	6646
67	97.67	3.31	28	1.875	5715
67	98.23	3.15	28	1.797	7383
67	98.72	3.07	28	1.758	7067
67	99.18	3.07	28	1.758	7338
67	99.70	3.15	28	1.797	4709
67	100.20	3.23	28	1.836	7979
67	100.75	3.15	28	1.797	6421
67	101.21	3.07	28	1.758	6697
67	101.74	3.15	28	1.797	6262
67	102.23	3.15	28	1.797	6556
67	102.72	3.23	28	1.836	7126
67	103.22	3.15	28	1.797	8035
67	103.81	3.23	28	1.836	7612
67	104.30	3.15	28	1.797	8301
67	104.79	2.99	28	1.719	7988
67	105.25	3.07	28	1.758	9127
67	105.77	3.07	28	1.758	8667
67	106.23	3.07	28	1.758	8958
67	106.79	3.15	28	1.797	8686
67	107.22	3.07	28	1.758	9326
67	107.81	3.07	28	1.758	11033
67	108.20	3.15	28	1.797	10370
67	108.73	3.07	28	1.758	11495
67	109.22	3.07	28	1.758	8907
67	109.81	3.23	28	1.836	9591
67	110.27	3.23	28	1.836	9929
67	110.73	3.31	28	1.875	10101
67	111.29	3.15	28	1.797	11364
67	111.78	3.15	28	1.797	12916
67	112.30	3.15	28	1.797	13350
67	112.80	3.15	28	1.797	13435

67	113.32	3.23	28	1.836	12924
67	113.78	3.15	28	1.797	12361
67	114.37	3.23	28	1.836	11616
67	114.80	3.23	28	1.836	10307
67	115.32	3.15	28	1.797	10107
67	115.81	3.23	28	1.836	7902
67	116.37	3.31	28	1.875	8342
67	116.86	3.31	28	1.875	6202
67	117.36	3.46	28	1.953	5040
67	117.75	3.54	28	1.992	6261
67	118.27	3.70	28	2.07	5752
67	118.77	3.62	28	2.031	5667
67	119.32	3.62	28	2.031	6016
67	119.82	3.62	28	2.031	6988
67	120.37	3.62	28	2.031	7286
67	120.80	3.54	28	1.992	7086
67	121.36	3.54	28	1.992	6539
67	121.78	3.62	28	2.031	5058
67	122.28	3.54	28	1.992	7238
67	122.80	3.54	28	1.992	5481
67	123.29	3.78	28	2.109	5224
67	123.85	3.46	28	1.953	4929
67	124.31	3.39	28	1.914	6020
67	124.93	3.39	28	1.914	6915
67	125.43	3.31	28	1.875	8147
67	125.85	3.39	28	1.914	8297
67	126.35	3.39	28	1.914	8989
67	126.80	3.46	28	1.953	11138
67	127.20	3.31	28	1.875	12550
67	127.72	3.23	28	1.836	15621
67	128.31	3.23	28	1.836	14372
67	128.84	3.23	28	1.836	14070
67	129.36	3.23	28	1.836	14644
67	129.99	3.15	28	1.797	13621
67	130.48	3.23	28	1.836	13406
67	130.87	3.23	28	1.836	13378
67	131.43	3.15	28	1.797	12794
67	131.89	3.15	28	1.797	12746
67	132.38	3.23	28	1.836	9914
67	132.84	3.23	28	1.836	8275
67	133.40	3.31	28	1.875	13249
67	133.92	3.46	28	1.953	9166
67	134.42	3.39	28	1.914	10214
67	135.04	3.46	28	1.953	6569
67	135.47	3.31	28	1.875	7844
67	135.93	3.31	28	1.875	7234
67	136.35	3.39	28	1.914	7058

67	136.84	3.39	28	1.914	5348
67	137.47	3.70	28	2.07	4141
67	137.96	3.39	28	1.914	5777
67	138.45	3.39	28	1.914	6641
67	138.98	3.46	28	1.953	5436
67	139.53	3.54	28	1.992	3902
67	139.99	3.46	28	1.953	6437
67	140.42	3.70	28	2.07	5196
67	140.88	3.54	28	1.992	4842
67	141.47	3.78	28	2.109	6658
67	141.93	3.86	28	2.148	4930
67	142.45	3.78	28	2.109	5985
67	142.95	3.70	28	2.07	5103
67	143.50	3.78	28	2.109	6038
67	144.03	3.70	28	2.07	5657
67	144.52	3.78	28	2.109	7140
67	145.05	3.70	28	2.07	5608
67	145.60	3.62	28	2.031	5805
67	146.03	3.70	28	2.07	4088
67	146.52	3.54	28	1.992	4124
67	147.01	3.54	28	1.992	5651
67	147.60	3.46	28	1.953	4759
67	148.06	3.54	28	1.992	3849
67	148.49	3.46	28	1.953	3929
67	149.02	3.46	28	1.953	5282
67	149.48	3.39	28	1.914	7344
67	150.00	3.46	28	1.953	4681
67	150.56	3.31	28	1.875	4172
67	151.15	3.23	28	1.836	5851
67	151.54	3.31	28	1.875	7492
67	152.07	3.23	28	1.836	7389
67	152.53	3.23	28	1.836	7964
67	153.12	3.07	28	1.758	8893
67	153.58	3.07	28	1.758	9368
67	154.10	3.07	28	1.758	7328
67	154.72	3.23	28	1.836	10607
67	155.15	3.23	28	1.836	8366
67	155.58	3.23	28	1.836	10668
67	156.14	3.39	28	1.914	10772
67	156.66	3.54	28	1.992	7935
67	157.19	3.70	28	2.07	9489
67	157.61	3.39	28	1.914	10270
67	158.04	3.39	28	1.914	12842
67	158.60	3.39	28	1.914	13286
67	159.12	3.39	28	1.914	12325
67	159.55	3.39	28	1.914	13917
67	160.07	3.46	28	1.953	13137

67	160.63	3.46	28	1.953	13387
67	161.12	3.46	28	1.953	13479
67	161.65	3.46	28	1.953	12942
67	162.11	3.46	28	1.953	11496
67	162.63	3.54	28	1.992	12488
67	162.66	3.54	28	1.992	13157
67	163.09	3.54	28	1.992	13027
67	163.62	3.62	28	2.031	11304
67	164.17	3.70	28	2.07	11339
67	164.60	4.02	28	2.227	9073
67	165.12	3.94	28	2.188	9438
67	165.58	3.70	28	2.07	10392
67	166.04	3.54	28	1.992	12157
67	166.50	3.54	28	1.992	13059
67	167.06	3.54	28	1.992	13766
67	167.62	3.54	28	1.992	14102
67	168.11	3.54	28	1.992	15559
67	168.60	3.54	28	1.992	13844
67	169.13	3.62	28	2.031	14168
67	169.55	3.62	28	2.031	13854
67	170.05	3.62	28	2.031	12871
67	170.57	3.62	28	2.031	13828
67	171.10	3.62	28	2.031	13677
67	171.56	3.70	28	2.07	13408
67	172.08	3.78	28	2.109	12111
67	172.60	4.09	28	2.266	9729
67	173.16	4.09	28	2.266	10552
67	173.65	3.94	28	2.188	10939
67	174.21	3.78	28	2.109	13475
67	174.64	3.70	28	2.07	12499
67	175.20	3.70	28	2.07	12197
67	175.66	3.70	28	2.07	11649
67	176.25	3.70	28	2.07	11951
67	176.77	3.70	28	2.07	12306
67	177.23	3.70	28	2.07	11790
67	177.69	3.78	28	2.109	12473
67	178.18	3.78	28	2.109	11491
67	178.71	3.86	28	2.148	10520
67	179.30	3.78	28	2.109	12850
67	179.76	3.86	28	2.148	11609
67	180.28	3.86	28	2.148	9966
67	180.74	4.21	28	2.344	7804
67	181.23	3.94	28	2.188	7704
67	181.76	3.94	28	2.188	9721
67	182.22	3.70	28	2.07	11544
67	182.71	3.70	28	2.07	11300
67	183.20	3.70	28	2.07	10798

67	183.66	3.70	28	2.07	11186
67	184.19	3.70	28	2.07	11701
67	184.78	3.70	28	2.07	12327
67	185.20	3.78	28	2.109	11274
67	185.70	3.70	28	2.07	12645
67	186.22	3.86	28	2.148	10777
67	186.75	3.86	28	2.148	11371
67	187.24	3.94	28	2.188	12027
67	187.76	3.94	28	2.188	11637
67	188.22	3.94	28	2.188	11146
67	188.68	4.37	28	2.422	8369
67	189.24	4.21	28	2.344	8768
67	189.76	4.09	28	2.266	10308
67	190.26	4.02	28	2.227	10715
67	190.78	4.02	28	2.227	11203
67	191.27	4.02	28	2.227	10709
67	191.83	4.02	28	2.227	11592
67	192.26	3.94	28	2.188	11581
67	192.81	4.02	28	2.227	11747
67	193.27	3.94	28	2.188	11337
67	193.70	3.94	28	2.188	9876
67	194.29	3.94	28	2.188	11331
67	194.75	3.86	28	2.148	11327
67	195.28	3.86	28	2.148	10581
67	195.83	3.86	28	2.148	10593
67	196.33	3.94	28	2.188	10340
67	196.85	4.21	28	2.344	7340
67	197.24	4.21	28	2.344	8492
67	197.80	4.02	28	2.227	9216
67	198.29	3.94	28	2.188	11538
67	198.75	4.02	28	2.227	10716
67	199.25	3.94	28	2.188	11282
67	199.80	3.94	28	2.188	10746
67	200.30	3.94	28	2.188	12205
67	200.72	3.94	28	2.188	11769
67	201.21	3.94	28	2.188	10313
67	201.74	3.94	28	2.188	10866
67	202.26	3.86	28	2.148	10606
67	202.82	3.94	28	2.188	12641
67	203.35	3.94	28	2.188	12027
67	203.84	3.86	28	2.148	12119
67	204.40	4.02	28	2.227	10802
67	204.86	4.21	28	2.344	9030
67	205.38	4.29	28	2.383	8919
67	205.84	4.02	28	2.227	11397
67	206.33	4.02	28	2.227	12157
67	206.86	4.02	28	2.227	11444

67	207.45	4.02	28	2.227	12886
67	207.87	4.02	28	2.227	12796
67	208.46	4.02	28	2.227	11524
67	208.86	4.02	28	2.227	13168
67	209.38	4.09	28	2.266	12649
67	209.84	4.09	28	2.266	11348
67	210.40	4.09	28	2.266	11643
67	210.79	4.09	28	2.266	12278
67	211.32	4.17	28	2.305	12668
67	211.91	4.21	28	2.344	12180
67	212.30	4.29	28	2.383	10896
67	212.83	4.69	28	2.578	9020
67	213.35	4.29	28	2.383	8924
67	213.91	4.21	28	2.344	7881
67	214.30	4.21	28	2.344	12113
67	214.90	4.17	28	2.305	9646
67	215.42	4.17	28	2.305	10798
67	215.91	4.17	28	2.305	12846
67	216.44	4.17	28	2.305	10540
67	216.86	4.09	28	2.266	10017
67	217.39	4.02	28	2.227	10645
67	217.95	4.09	28	2.266	10342
67	218.41	4.09	28	2.266	10154
67	218.93	4.09	28	2.266	9576
67	219.46	4.17	28	2.305	8541
67	219.88	4.09	28	2.266	8878
67	220.41	4.21	28	2.344	8409
67	220.93	4.45	28	2.461	7228
67	221.46	4.53	28	2.5	6374
67	221.98	4.21	28	2.344	7791
67	222.41	4.09	28	2.266	10378
67	222.87	4.09	28	2.266	9845
67	223.39	4.09	28	2.266	9744
67	223.88	4.09	28	2.266	10789
67	224.34	4.02	28	2.227	10013
67	224.87	4.09	28	2.266	11415
67	225.46	4.02	28	2.227	11965
67	225.98	4.09	28	2.266	11735
67	226.48	4.02	28	2.227	10494
67	226.97	4.09	28	2.266	12482
67	227.49	4.09	28	2.266	12379
67	227.89	4.09	28	2.266	12437
67	228.38	4.17	28	2.305	11894
67	228.94	4.61	28	2.539	7222
67	229.40	4.37	28	2.422	8038
67	229.86	4.21	28	2.344	10807
67	230.45	4.17	28	2.305	12236

67	230.97	4.21	28	2.344	11738
67	231.43	4.21	28	2.344	11427
67	231.92	4.17	28	2.305	11550
67	232.48	4.21	28	2.344	11785
67	233.01	4.17	28	2.305	11580
69	0.20	4.61	30	2.539	3340
69	0.69	4.61	30	2.539	3240
69	1.25	4.53	30	2.5	3276
69	1.84	4.37	30	2.422	3418
69	2.33	4.45	30	2.461	4807
69	2.89	4.37	30	2.422	3645
69	3.35	4.37	30	2.422	4693
69	3.77	4.37	30	2.422	4571
69	4.23	4.37	30	2.422	4189
69	4.76	4.37	30	2.422	3711
69	5.25	4.29	30	2.383	5034
69	5.74	4.29	30	2.383	3263
69	6.30	4.29	30	2.383	3866
69	6.82	4.45	30	2.461	3425
69	7.45	4.92	30	2.695	2698
69	7.91	4.53	30	2.5	2853
69	8.33	4.37	30	2.422	3376
69	8.86	4.29	30	2.383	4181
69	9.35	4.29	30	2.383	3004
69	9.84	4.17	30	2.305	4090
69	10.33	4.21	30	2.344	2947
69	10.83	4.29	30	2.383	3578
69	11.32	4.29	30	2.383	3420
69	11.81	4.21	30	2.344	2919
69	12.34	4.37	30	2.422	4986
69	12.86	4.21	30	2.344	3667
69	13.39	4.21	30	2.344	2475
69	13.81	4.21	30	2.344	5035
69	14.37	4.29	30	2.383	4297
69	14.86	4.37	30	2.422	4380
69	15.42	4.84	30	2.656	4575
69	15.88	4.37	30	2.422	4516
69	16.31	4.29	30	2.383	4538
69	16.86	4.21	30	2.344	6505
69	17.39	4.17	30	2.305	6484
69	17.85	4.17	30	2.305	5478
69	18.27	4.17	30	2.305	6484
69	18.80	4.17	30	2.305	5126
69	19.46	4.02	30	2.227	6171
69	19.98	4.02	30	2.227	6342
69	20.47	4.02	30	2.227	6987
69	20.96	4.02	30	2.227	6797

69	21.46	4.02	30	2.227	6508
69	21.95	4.02	30	2.227	5811
69	22.41	4.02	30	2.227	6331
69	22.90	4.17	30	2.305	5847
69	23.46	4.53	30	2.5	3303
69	23.92	4.21	30	2.344	4272
69	24.38	4.45	30	2.461	5534
69	24.90	4.45	30	2.461	3551
69	25.43	4.45	30	2.461	4944
69	25.92	4.37	30	2.422	1527
69	26.41	4.29	30	2.383	2695
69	27.03	4.02	30	2.227	4307
69	27.46	4.02	30	2.227	5552
69	27.92	4.02	30	2.227	5281
69	28.41	3.86	30	2.148	4679
69	28.94	3.86	30	2.148	5256
69	29.53	3.94	30	2.188	6469
69	29.99	4.09	30	2.266	7246
69	30.45	3.94	30	2.188	7424
69	30.94	3.94	30	2.188	6766
69	31.43	4.29	30	2.383	5700
69	31.96	4.02	30	2.227	8959
69	32.48	3.94	30	2.188	9096
69	32.94	3.94	30	2.188	11393
69	33.46	3.86	30	2.148	8664
69	33.96	3.94	30	2.188	11854
69	34.55	3.94	30	2.188	12051
69	35.01	3.94	30	2.188	9745
69	35.50	3.94	30	2.188	12109
69	35.96	3.94	30	2.188	12041
69	36.42	3.94	30	2.188	11533
69	37.01	3.94	30	2.188	11767
69	37.43	3.86	30	2.148	11592
69	38.02	3.86	30	2.148	13040
69	38.52	3.78	30	2.109	10854
69	38.94	3.94	30	2.188	10877
69	39.57	4.17	30	2.305	8970
69	40.06	3.86	30	2.148	11974
69	40.62	3.78	30	2.109	12422
69	41.04	3.62	30	2.031	11966
69	41.63	3.62	30	2.031	12982
69	42.16	3.62	30	2.031	13544
69	42.68	3.62	30	2.031	12346
69	43.08	3.62	30	2.031	11608
69	43.50	3.62	30	2.031	10907
69	44.13	3.62	30	2.031	9073
69	44.62	3.46	30	1.953	12073

69	45.05	3.62	30	2.031	12910
69	45.64	3.62	30	2.031	13509
69	46.10	3.46	30	1.953	13461
69	46.52	3.62	30	2.031	12350
69	47.08	3.62	30	2.031	11207
69	47.60	4.02	30	2.227	8302
69	48.03	3.62	30	2.031	11366
69	48.56	3.62	30	2.031	10538
69	49.05	3.54	30	1.992	12979
69	49.61	3.54	30	1.992	12578
69	50.16	3.62	30	2.031	11834
69	50.59	3.62	30	2.031	12302
69	51.15	3.62	30	2.031	11773
69	51.54	3.62	30	2.031	10990
69	52.10	3.70	30	2.07	11200
69	52.62	3.62	30	2.031	11560
69	53.12	3.62	30	2.031	12338
69	53.58	3.62	30	2.031	12240
69	54.13	3.62	30	2.031	11568
69	54.72	3.62	30	2.031	10449
69	55.25	3.78	30	2.109	7860
69	55.74	3.94	30	2.188	7626
69	56.20	3.62	30	2.031	10170
69	56.63	3.62	30	2.031	10044
69	56.66	3.62	30	2.031	9771
69	57.09	3.62	30	2.031	8446
69	57.51	3.62	30	2.031	7632
69	58.20	3.62	30	2.031	9096
69	58.73	3.62	30	2.031	6690
69	59.22	3.62	30	2.031	6396
69	59.71	3.62	30	2.031	7624
69	60.20	3.94	30	2.188	2713
69	60.63	4.02	30	2.227	5510
69	61.25	4.02	30	2.227	5744
69	61.68	3.94	30	2.188	6650
69	62.17	3.78	30	2.109	4741
69	62.57	3.86	30	2.148	5639
69	63.16	4.02	30	2.227	5226
69	63.75	4.17	30	2.305	4909
69	64.21	3.94	30	2.188	4904
69	64.76	3.78	30	2.109	5551
69	65.22	3.86	30	2.148	6776
69	65.75	3.78	30	2.109	4759
69	66.24	3.86	30	2.148	6919
69	66.70	3.78	30	2.109	6711
69	67.19	3.78	30	2.109	6182
69	67.68	3.78	30	2.109	6049

69	68.24	3.78	30	2.109	6302
69	68.80	3.78	30	2.109	5438
69	69.32	3.86	30	2.148	5816
69	69.75	3.86	30	2.148	5570
69	70.21	3.86	30	2.148	4599
69	70.67	3.94	30	2.188	4243
69	71.13	4.02	30	2.227	3957
69	71.72	4.45	30	2.461	3421
69	72.24	4.09	30	2.266	5485
69	72.70	4.02	30	2.227	4490
69	73.20	4.02	30	2.227	4073
69	73.65	3.94	30	2.188	5152
69	74.11	3.86	30	2.148	5865
69	74.61	3.94	30	2.188	7517
69	75.13	3.86	30	2.148	6861
69	75.75	3.86	30	2.148	6077
69	76.21	3.78	30	2.109	7800
69	76.74	3.62	30	2.031	6538
69	77.20	3.62	30	2.031	4726
69	77.72	3.70	30	2.07	5083
69	78.22	3.62	30	2.031	5738
69	78.71	3.62	30	2.031	6216
69	79.27	3.62	30	2.031	5580
69	79.82	3.78	30	2.109	4591
69	80.28	3.62	30	2.031	4706
69	80.77	3.46	30	1.953	7173
69	81.33	3.15	30	1.797	7599
69	81.79	3.15	30	1.797	6525
69	82.28	3.07	30	1.758	6715
69	82.71	3.15	30	1.797	5647
69	83.23	3.07	30	1.758	5381
69	83.79	3.07	30	1.758	7131
69	84.32	3.07	30	1.758	8978
69	84.84	3.07	30	1.758	9412
69	85.30	3.07	30	1.758	11767
69	85.76	3.15	30	1.797	9454
69	86.32	3.07	30	1.758	12632
69	86.81	3.15	30	1.797	12727
69	87.34	3.07	30	1.758	12272
69	87.76	3.07	30	1.758	13365
69	88.32	3.07	30	1.758	13203
69	88.75	3.07	30	1.758	15471
69	89.24	3.15	30	1.797	14893
69	89.80	3.15	30	1.797	17774
69	89.83	3.15	30	1.797	17564
69	90.29	3.15	30	1.797	13827
69	90.78	3.07	30	1.758	13683

69	91.27	3.15	30	1.797	13483
69	91.31	3.15	30	1.797	13380
69	91.77	3.07	30	1.758	11063
69	92.36	3.23	30	1.836	9033
69	92.81	3.31	30	1.875	8185
69	93.34	3.23	30	1.836	8006
69	93.80	3.39	30	1.914	6017
69	94.29	3.62	30	2.031	5070
69	94.78	3.54	30	1.992	9212
69	95.24	3.31	30	1.875	5790
69	95.80	3.31	30	1.875	5921
69	96.29	3.39	30	1.914	5419
69	96.78	3.39	30	1.914	6449
69	97.34	3.39	30	1.914	5099
69	97.83	3.39	30	1.914	7281
69	98.39	3.39	30	1.914	6310
69	98.92	3.31	30	1.875	5129
69	99.38	3.39	30	1.914	5538
69	99.90	3.54	30	1.992	5487
69	100.36	3.46	30	1.953	6865
69	100.79	3.54	30	1.992	4354
69	101.31	3.78	30	2.109	8688
69	101.87	3.70	30	2.07	4470
69	102.40	3.62	30	2.031	5068
69	102.89	3.62	30	2.031	6685
69	103.38	3.62	30	2.031	5721
69	103.97	3.62	30	2.031	5958
69	104.46	3.62	30	2.031	5843
69	104.95	3.62	30	2.031	5086
69	105.41	3.62	30	2.031	4406
69	105.97	3.62	30	2.031	5270
69	106.40	3.62	30	2.031	5177
69	106.92	3.62	30	2.031	4905
69	107.45	3.62	30	2.031	6467
69	107.45	3.62	30	2.031	6208
69	107.97	3.39	30	1.914	6803
69	108.40	3.46	30	1.953	9112
69	108.89	3.46	30	1.953	10227
69	109.35	3.46	30	1.953	10345
69	109.94	3.62	30	2.031	9948
69	110.43	3.62	30	2.031	10673
69	110.89	3.54	30	1.992	12916
69	111.48	3.62	30	2.031	11398
69	111.94	3.62	30	2.031	11698
69	112.47	3.54	30	1.992	12374
69	112.96	3.62	30	2.031	11060
69	113.48	3.62	30	2.031	10400

69	113.94	3.62	30	2.031	9902
69	114.50	3.70	30	2.07	9580
69	114.93	3.54	30	1.992	11162
69	115.45	3.62	30	2.031	9994
69	115.98	3.54	30	1.992	9592
69	116.50	3.62	30	2.031	7526
69	116.99	3.62	30	2.031	5979
69	117.45	3.54	30	1.992	6124
69	117.88	3.70	30	2.07	7767
69	118.41	3.70	30	2.07	5975
69	118.86	3.62	30	2.031	7013
69	119.42	3.46	30	1.953	8851
69	119.95	3.62	30	2.031	7977
69	120.41	3.39	30	1.914	10194
69	120.90	3.46	30	1.953	9364
69	121.49	3.46	30	1.953	9182
69	121.88	3.39	30	1.914	10773
69	122.44	3.46	30	1.953	10139
69	122.97	3.46	30	1.953	10740
69	123.49	3.54	30	1.992	10718
69	124.02	3.46	30	1.953	11194
69	124.51	3.70	30	2.07	9189
69	125.03	3.62	30	2.031	8483
69	125.03	3.62	30	2.031	8743
69	125.56	3.62	30	2.031	8357
69	126.02	3.62	30	2.031	5782
69	126.48	3.62	30	2.031	7717
69	126.97	3.46	30	1.953	9200
69	127.33	3.46	30	1.953	9760
69	127.89	3.31	30	1.875	9993
69	128.44	3.39	30	1.914	9197
69	129.00	3.39	30	1.914	8885
69	129.49	3.46	30	1.953	8026
69	130.12	3.46	30	1.953	7849
69	130.58	3.46	30	1.953	7102
69	131.07	3.39	30	1.914	7220
69	131.53	3.39	30	1.914	7876
69	132.05	3.46	30	1.953	9710
69	132.55	3.46	30	1.953	8150
69	133.01	3.62	30	2.031	8784
69	133.56	3.62	30	2.031	9200
69	134.12	3.70	30	2.07	7923
69	134.61	3.62	30	2.031	10794
69	135.17	3.54	30	1.992	9274
69	135.66	3.46	30	1.953	8817
69	136.12	3.39	30	1.914	11404
69	136.52	3.39	30	1.914	10216

69	137.07	3.46	30	1.953	10107
69	137.60	3.46	30	1.953	10892
69	138.12	3.54	30	1.992	8701
69	138.65	3.54	30	1.992	9027
69	139.14	3.62	30	2.031	9403
69	139.70	3.54	30	1.992	10776
69	140.09	3.46	30	1.953	11233
69	140.62	3.54	30	1.992	10050
69	141.04	3.54	30	1.992	11171
69	141.63	3.54	30	1.992	10468
69	142.16	3.78	30	2.109	8070
69	142.65	3.70	30	2.07	8308
69	143.14	3.62	30	2.031	9565
69	143.67	3.62	30	2.031	12127
69	144.19	3.62	30	2.031	9183
69	144.69	3.62	30	2.031	9447
69	145.21	3.62	30	2.031	9546
69	145.77	3.62	30	2.031	9426
69	146.16	3.62	30	2.031	8196
69	146.69	3.62	30	2.031	9275
69	147.18	3.62	30	2.031	6664
69	147.77	3.62	30	2.031	9056
69	148.20	3.62	30	2.031	8761
69	148.69	3.62	30	2.031	7772
69	149.21	3.46	30	1.953	9889
69	149.67	3.46	30	1.953	11276
69	150.13	3.62	30	2.031	8699
69	150.72	3.54	30	1.992	9821
69	151.28	3.39	30	1.914	11776
69	151.67	3.31	30	1.875	12847
69	152.17	3.31	30	1.875	14118
69	152.62	3.31	30	1.875	13700
69	153.22	3.39	30	1.914	13403
69	153.67	3.39	30	1.914	11855
69	154.20	3.31	30	1.875	13666
69	154.82	3.31	30	1.875	12462
69	154.82	3.31	30	1.875	12802
69	155.25	3.39	30	1.914	11481
69	155.71	3.39	30	1.914	10411
69	156.33	3.62	30	2.031	7815
69	156.76	3.94	30	2.188	7439
69	157.32	3.70	30	2.07	6216
69	157.74	3.70	30	2.07	7246
69	158.20	3.78	30	2.109	5690
69	158.69	3.86	30	2.148	6331
69	159.22	3.86	30	2.148	4159
69	159.71	4.02	30	2.227	4694

69	160.24	4.09	30	2.266	5120
69	160.70	4.09	30	2.266	3778
69	161.25	4.09	30	2.266	5802
69	161.78	4.09	30	2.266	5719
69	162.27	4.09	30	2.266	4900
69	162.80	4.21	30	2.344	5612
69	163.22	4.21	30	2.344	3649
69	163.75	4.21	30	2.344	4905
69	164.30	4.45	30	2.461	3890
69	164.80	4.84	30	2.656	3504
69	165.26	4.29	30	2.383	5394
69	165.72	4.21	30	2.344	5105
69	166.17	4.17	30	2.305	5150
69	166.77	4.45	30	2.461	9516
69	167.26	4.37	30	2.422	4846
69	167.72	4.29	30	2.383	7398
69	168.31	4.29	30	2.383	2759
69	168.77	4.02	30	2.227	5719
69	169.23	4.02	30	2.227	5395
69	169.69	4.02	30	2.227	5868
69	170.21	4.09	30	2.266	6073
69	170.67	4.09	30	2.266	4208
69	171.23	4.09	30	2.266	5591
69	171.75	4.17	30	2.305	6360
69	172.24	4.29	30	2.383	5080
69	172.74	4.76	30	2.617	1982
69	173.33	4.37	30	2.422	3323
69	173.82	4.29	30	2.383	5795
69	174.31	4.21	30	2.344	3736
69	174.80	4.02	30	2.227	5390
69	175.33	4.02	30	2.227	5132
69	175.82	3.94	30	2.188	3933
69	176.41	4.17	30	2.305	4449
69	176.90	3.94	30	2.188	5799
69	177.36	3.94	30	2.188	6421
69	177.79	3.94	30	2.188	6204
69	178.31	3.94	30	2.188	5128
69	178.84	3.94	30	2.188	7451
69	179.40	3.94	30	2.188	6847
69	179.89	4.02	30	2.227	5685
69	180.45	4.09	30	2.266	4470
69	180.91	4.53	30	2.5	3273
69	181.40	4.02	30	2.227	5035
69	181.89	3.86	30	2.148	7315
69	182.38	3.86	30	2.148	5565
69	182.84	4.02	30	2.227	6737
69	183.37	3.94	30	2.188	6731

69	183.83	3.94	30	2.188	7763
69	184.32	3.86	30	2.148	6661
69	184.88	3.86	30	2.148	6237
69	185.40	4.02	30	2.227	4314
69	185.83	4.09	30	2.266	5556
69	186.38	4.02	30	2.227	6125
69	186.94	4.17	30	2.305	6644
69	187.47	4.09	30	2.266	6373
69	187.93	4.21	30	2.344	4241
69	188.39	4.29	30	2.383	3869
69	188.91	4.76	30	2.617	3190
69	189.44	4.29	30	2.383	3267
69	189.93	4.29	30	2.383	2596
69	190.39	4.21	30	2.344	4643
69	190.91	4.29	30	2.383	3741
69	191.44	4.17	30	2.305	2798
69	191.96	4.17	30	2.305	3328
69	192.42	4.21	30	2.344	4621
69	192.91	4.37	30	2.422	4498
69	193.44	4.17	30	2.305	3329
69	193.90	4.17	30	2.305	2769
69	194.46	4.09	30	2.266	6035
69	194.95	4.09	30	2.266	5408
69	195.44	4.21	30	2.344	6284
69	196.00	4.21	30	2.344	5523
69	196.49	4.45	30	2.461	4086
69	196.98	4.76	30	2.617	3415
69	197.47	4.45	30	2.461	3245
69	198.00	4.21	30	2.344	3809
69	198.49	4.29	30	2.383	5569
69	198.95	4.29	30	2.383	5607
69	199.41	4.29	30	2.383	5416
69	199.44	4.29	30	2.383	5404
69	199.97	4.29	30	2.383	5819
69	200.46	4.29	30	2.383	3430
69	200.92	4.29	30	2.383	5577
69	201.38	4.29	30	2.383	6475
69	201.84	4.61	30	2.539	8655
69	202.43	4.69	30	2.578	6942
69	202.92	4.76	30	2.617	8983
69	203.51	4.76	30	2.617	9710
69	204.07	4.61	30	2.539	6157
69	204.59	4.53	30	2.5	4115
69	205.05	5.08	30	2.773	4635
69	205.54	4.53	30	2.5	4663
69	205.97	4.53	30	2.5	5205
69	206.53	4.61	30	2.539	6556

69	207.09	4.61	30	2.539	4517
69	207.51	4.53	30	2.5	6656
69	208.04	4.61	30	2.539	6149
69	208.60	4.61	30	2.539	5522
69	209.06	4.61	30	2.539	5024
69	209.55	4.69	30	2.578	5480
69	210.04	4.61	30	2.539	5821
69	210.56	4.69	30	2.578	5955
69	210.99	4.69	30	2.578	4447
69	211.45	4.69	30	2.578	5559
69	212.04	4.76	30	2.617	6124
69	212.47	4.92	30	2.695	5887
69	212.50	4.92	30	2.695	5953
69	213.06	5.43	30	2.969	7034
69	213.62	5.00	30	2.734	5609
69	214.04	4.84	30	2.656	4505
69	214.50	4.84	30	2.656	4639
69	215.06	4.69	30	2.578	6180
69	215.58	4.76	30	2.617	7674
69	216.08	4.76	30	2.617	5579
69	216.54	4.92	30	2.695	5446
69	216.57	4.92	30	2.695	5548
69	217.03	4.76	30	2.617	4833
69	217.59	4.76	30	2.617	5701
69	218.11	4.76	30	2.617	5659
69	218.60	4.69	30	2.578	6511
69	219.13	4.84	30	2.656	5653
69	219.59	4.69	30	2.578	5675
69	220.08	4.84	30	2.656	5347
69	220.54	5.00	30	2.734	6769
69	221.06	5.43	30	2.969	5203
69	221.59	5.08	30	2.773	6714
69	222.11	4.69	30	2.578	6118
69	222.57	4.76	30	2.617	6999
69	223.06	4.61	30	2.539	4585
69	223.56	4.69	30	2.578	5649
69	224.08	4.53	30	2.5	5935
69	224.51	4.45	30	2.461	5172
69	225.07	4.45	30	2.461	5261
69	225.59	4.45	30	2.461	4048
69	226.12	4.53	30	2.5	4942
69	226.57	4.45	30	2.461	4387
69	227.10	4.45	30	2.461	5068
69	227.56	4.29	30	2.383	4885
69	228.02	4.37	30	2.422	4306
69	228.54	4.45	30	2.461	3200
69	229.04	5.08	30	2.773	2924

69	229.56	4.76	30	2.617	3732
69	229.95	4.45	30	2.461	2252
69	230.61	4.37	30	2.422	2929
69	231.10	4.37	30	2.422	3368
69	231.59	4.45	30	2.461	3583
69	232.12	4.37	30	2.422	4883
69	232.61	4.37	30	2.422	5843
70	0.23	4.21	32	2.344	9101
70	0.75	4.21	32	2.344	10138
70	1.25	4.17	32	2.305	11279
70	1.77	4.21	32	2.344	10879
70	2.26	4.17	32	2.305	10390
70	2.76	4.17	32	2.305	9876
70	3.38	4.21	32	2.344	10328
70	3.87	4.45	32	2.461	8282
70	4.30	4.69	32	2.578	6794
70	4.79	4.29	32	2.383	8902
70	4.79	4.29	32	2.383	8327
70	5.31	4.17	32	2.305	10587
70	5.81	4.17	32	2.305	11751
70	6.27	4.09	32	2.266	11965
70	6.79	4.17	32	2.305	10421
70	7.25	4.17	32	2.305	11652
70	7.78	4.17	32	2.305	11184
70	8.30	4.17	32	2.305	10982
70	8.86	4.21	32	2.344	10893
70	9.28	4.21	32	2.344	10085
70	9.81	4.29	32	2.383	10547
70	10.30	4.37	32	2.422	9581
70	10.79	4.37	32	2.422	8809
70	11.25	4.53	32	2.5	9862
70	11.81	4.53	32	2.5	7852
70	12.24	4.92	32	2.695	5934
70	12.89	4.45	32	2.461	8977
70	13.29	4.37	32	2.422	8341
70	13.78	4.53	32	2.5	9541
70	14.21	4.53	32	2.5	9201
70	14.76	4.53	32	2.5	9636
70	15.26	4.45	32	2.461	10100
70	15.81	4.45	32	2.461	9253
70	16.37	4.45	32	2.461	8619
70	16.83	4.45	32	2.461	9167
70	17.26	4.45	32	2.461	10209
70	17.75	4.45	32	2.461	9364
70	17.78	4.45	32	2.461	9692
70	18.27	4.45	32	2.461	8972
70	18.90	4.37	32	2.422	10231

70	19.32	4.37	32	2.422	9592
70	19.36	4.37	32	2.422	9280
70	19.78	4.45	32	2.461	8640
70	20.41	4.92	32	2.695	7781
70	20.87	4.45	32	2.461	8837
70	21.36	4.37	32	2.422	8237
70	21.95	4.45	32	2.461	9731
70	22.38	4.45	32	2.461	9648
70	22.83	4.37	32	2.422	9939
70	22.83	4.37	32	2.422	10284
70	23.36	4.29	32	2.383	10110
70	23.82	4.21	32	2.344	10588
70	24.31	4.29	32	2.383	10537
70	24.80	4.21	32	2.344	10465
70	25.33	4.29	32	2.383	10569
70	25.82	4.29	32	2.383	10801
70	25.85	4.29	32	2.383	11228
70	26.31	4.29	32	2.383	10441
70	26.87	4.17	32	2.305	9932
70	26.87	4.17	32	2.305	10345
70	27.40	4.17	32	2.305	10044
70	27.85	4.29	32	2.383	9973
70	28.35	4.69	32	2.578	7633
70	28.77	4.29	32	2.383	8046
70	28.77	4.29	32	2.383	8058
70	29.33	4.21	32	2.344	8854
70	29.82	4.21	32	2.344	9783
70	30.41	4.21	32	2.344	9924
70	31.04	4.21	32	2.344	10530
70	31.46	4.17	32	2.305	9913
70	31.99	4.21	32	2.344	10158
70	32.48	4.09	32	2.266	10442
70	32.91	4.17	32	2.305	9744
70	33.40	4.29	32	2.383	10677
70	33.96	4.17	32	2.305	11017
70	34.38	4.17	32	2.305	10821
70	34.88	4.17	32	2.305	9226
70	35.37	4.17	32	2.305	10177
70	35.37	4.17	32	2.305	9893
70	35.93	4.17	32	2.305	9872
70	36.42	4.53	32	2.5	7239
70	36.88	4.09	32	2.266	8700
70	37.37	4.02	32	2.227	10317
70	37.89	4.02	32	2.227	10188
70	38.45	4.02	32	2.227	9927
70	38.88	4.02	32	2.227	9537
70	39.47	3.94	32	2.188	9085

70	39.90	4.02	32	2.227	10049
70	40.45	4.09	32	2.266	10508
70	40.98	4.09	32	2.266	11147
70	41.40	4.09	32	2.266	10800
70	41.90	4.09	32	2.266	11108
70	42.45	4.09	32	2.266	10065
70	42.98	4.09	32	2.266	10741
70	43.44	4.09	32	2.266	10457
70	43.90	4.17	32	2.305	7518
70	44.49	4.53	32	2.5	7750
70	45.05	4.21	32	2.344	9438
70	45.47	4.17	32	2.305	8926
70	45.90	4.17	32	2.305	10081
70	46.42	4.09	32	2.266	10461
70	46.98	4.09	32	2.266	10538
70	47.54	3.94	32	2.188	10688
70	47.97	3.94	32	2.188	10891
70	48.46	3.94	32	2.188	10251
70	49.02	3.86	32	2.148	9492
70	49.48	3.86	32	2.148	10509
70	49.97	4.02	32	2.227	10532
70	50.52	4.02	32	2.227	10064
70	50.95	3.94	32	2.188	10592
70	51.51	4.02	32	2.227	9115
70	51.94	4.09	32	2.266	8030
70	52.46	4.37	32	2.422	6458
70	52.95	4.09	32	2.266	8266
70	53.44	4.02	32	2.227	10411
70	53.97	4.02	32	2.227	9945
70	53.97	4.02	32	2.227	10876
70	54.49	3.94	32	2.188	10139
70	54.99	4.02	32	2.227	10451
70	55.58	4.02	32	2.227	10411
70	55.97	4.02	32	2.227	10881
70	56.43	4.02	32	2.227	9555
70	56.99	4.29	32	2.383	8869
70	57.51	3.94	32	2.188	9443
70	58.01	4.02	32	2.227	11429
70	58.53	4.02	32	2.227	10230
70	59.06	4.02	32	2.227	10521
70	59.55	4.02	32	2.227	10856
70	60.04	4.02	32	2.227	8903
70	60.56	4.29	32	2.383	7661
70	61.09	3.94	32	2.188	9992
70	61.55	3.86	32	2.148	11369
70	62.14	3.86	32	2.148	11705
70	62.63	3.78	32	2.109	10658

70	63.12	3.94	32	2.188	12062
70	63.65	3.86	32	2.148	11087
70	64.11	3.86	32	2.148	10872
70	64.57	3.86	32	2.148	11263
70	65.12	3.86	32	2.148	11725
70	65.62	3.94	32	2.188	12749
70	66.11	3.94	32	2.188	12488
70	66.67	3.94	32	2.188	11214
70	67.19	4.02	32	2.227	11459
70	67.55	4.02	32	2.227	12552
70	68.08	4.17	32	2.305	8914
70	68.57	4.53	32	2.5	7022
70	69.09	4.17	32	2.305	9224
70	69.62	4.09	32	2.266	9784
70	70.14	4.02	32	2.227	11942
70	70.54	4.09	32	2.266	10023
70	71.06	4.09	32	2.266	10725
70	71.59	4.09	32	2.266	10688
70	71.59	4.09	32	2.266	10890
70	72.11	3.94	32	2.188	11233
70	72.67	3.94	32	2.188	12004
70	73.13	3.94	32	2.188	12096
70	73.62	3.94	32	2.188	11438
70	74.11	3.86	32	2.148	10891
70	74.64	4.02	32	2.227	10466
70	75.13	3.94	32	2.188	10647
70	75.66	3.86	32	2.148	9478
70	76.05	3.78	32	2.109	9793
70	76.64	4.02	32	2.227	8023
70	77.03	3.70	32	2.07	9979
70	77.66	3.39	32	1.914	12473
70	78.08	3.39	32	1.914	11211
70	78.58	3.39	32	1.914	12188
70	79.13	3.70	32	2.07	8160
70	79.66	3.62	32	2.031	6270
70	80.18	3.70	32	2.07	5154
70	80.71	3.70	32	2.07	4876
70	81.23	3.54	32	1.992	6704
70	81.66	3.62	32	2.031	5980
70	82.09	3.54	32	1.992	5060
70	82.64	3.78	32	2.109	6028
70	83.23	3.78	32	2.109	4319
70	83.66	3.78	32	2.109	5932
70	84.12	3.78	32	2.109	4778
70	84.68	3.70	32	2.07	5205
70	85.17	3.78	32	2.109	5322
70	85.60	3.78	32	2.109	4200

70	86.19	3.78	32	2.109	4653
70	86.68	3.70	32	2.07	6487
70	87.20	3.62	32	2.031	4726
70	87.63	3.70	32	2.07	4808
70	88.19	3.54	32	1.992	6112
70	88.65	3.62	32	2.031	8448
70	89.17	3.54	32	1.992	9248
70	89.70	3.62	32	2.031	8985
70	90.22	3.62	32	2.031	6888
70	90.68	3.78	32	2.109	7593
70	91.24	3.86	32	2.148	6360
70	91.70	3.62	32	2.031	9164
70	92.32	3.70	32	2.07	8158
70	92.72	3.62	32	2.031	9009
70	93.24	3.62	32	2.031	8874
70	93.64	3.70	32	2.07	7936
70	94.19	3.70	32	2.07	6435
70	94.72	3.54	32	1.992	6589
70	95.28	3.70	32	2.07	7075
70	95.77	3.54	32	1.992	7921
70	96.29	3.62	32	2.031	5939
70	96.85	3.62	32	2.031	7301
70	97.21	3.78	32	2.109	4568
70	97.67	3.62	32	2.031	5838
70	98.16	3.62	32	2.031	6807
70	98.72	3.62	32	2.031	5575
70	99.18	3.70	32	2.07	6530
70	99.80	3.70	32	2.07	5947
70	100.30	3.46	32	1.953	9007
70	100.82	3.31	32	1.875	9258
70	101.28	3.23	32	1.836	10396
70	101.84	3.23	32	1.836	10310
70	102.30	3.31	32	1.875	11765
70	102.76	3.31	32	1.875	9025
70	103.22	3.23	32	1.836	8680
70	103.81	3.39	32	1.914	9619
70	104.30	3.31	32	1.875	9686
70	104.89	3.31	32	1.875	11434
70	105.41	3.39	32	1.914	10488
70	105.91	3.39	32	1.914	10097
70	106.36	3.39	32	1.914	9391
70	106.86	3.39	32	1.914	7088
70	107.32	3.46	32	1.953	10201
70	107.81	3.39	32	1.914	9260
70	108.30	3.39	32	1.914	8894
70	108.86	3.62	32	2.031	8462
70	109.32	3.46	32	1.953	9125

70	109.84	3.46	32	1.953	10427
70	110.40	3.39	32	1.914	10872
70	110.89	3.31	32	1.875	10983
70	111.45	3.31	32	1.875	12064
70	111.84	3.39	32	1.914	9649
70	112.40	3.46	32	1.953	10274
70	112.93	3.39	32	1.914	10291
70	113.39	3.46	32	1.953	10003
70	113.91	3.46	32	1.953	10364
70	114.47	3.54	32	1.992	9742
70	114.93	3.70	32	2.07	7535
70	115.45	3.70	32	2.07	9581
70	115.88	3.62	32	2.031	7844
70	116.34	3.78	32	2.109	7408
70	116.83	3.62	32	2.031	8142
70	117.39	3.62	32	2.031	7722
70	117.88	3.62	32	2.031	7212
70	118.41	3.70	32	2.07	6531
70	118.83	3.62	32	2.031	7395
70	119.39	3.62	32	2.031	8437
70	119.88	3.62	32	2.031	6915
70	120.37	3.62	32	2.031	6059
70	120.87	3.70	32	2.07	5810
70	121.42	3.70	32	2.07	6634
70	121.85	3.70	32	2.07	8176
70	122.41	3.62	32	2.031	6953
70	122.87	3.62	32	2.031	5252
70	123.36	3.70	32	2.07	7216
70	123.98	3.54	32	1.992	11713
70	124.44	3.46	32	1.953	10052
70	124.93	3.46	32	1.953	11017
70	125.39	3.46	32	1.953	11464
70	125.92	3.62	32	2.031	10211
70	126.38	3.39	32	1.914	12355
70	126.94	3.31	32	1.875	12411
70	127.43	3.31	32	1.875	11120
70	127.95	3.31	32	1.875	11569
70	128.38	3.31	32	1.875	10296
70	128.87	3.31	32	1.875	8804
70	129.36	3.31	32	1.875	9940
70	129.95	3.31	32	1.875	10936
70	130.45	3.31	32	1.875	11187
70	130.91	3.39	32	1.914	9572
70	131.40	3.39	32	1.914	8135
70	131.66	4.29	32	2.383	15254
70	132.22	4.37	32	2.422	17891
70	132.74	4.37	32	2.422	14239

70	133.23	4.29	32	2.383	15755
70	133.69	4.21	32	2.344	15593
70	134.42	3.46	32	1.953	6272
70	134.94	3.54	32	1.992	4887
70	135.50	3.62	32	2.031	6686
70	135.99	3.46	32	1.953	6055
70	136.52	3.39	32	1.914	5691
70	137.04	3.46	32	1.953	7558
70	137.50	3.54	32	1.992	4952
70	137.99	3.62	32	2.031	7021
70	138.55	3.62	32	2.031	5907
70	139.01	3.62	32	2.031	5245
70	139.53	3.70	32	2.07	4419
70	139.96	3.46	32	1.953	4512
70	140.45	3.54	32	1.992	5236
70	140.98	3.54	32	1.992	5487
70	141.54	3.46	32	1.953	3637
70	141.99	3.54	32	1.992	4602
70	142.49	3.39	32	1.914	4943
70	143.01	3.31	32	1.875	4277
70	143.50	3.46	32	1.953	5485
70	144.06	3.39	32	1.914	5064
70	144.55	3.31	32	1.875	7108
70	145.01	3.31	32	1.875	5771
70	145.54	3.39	32	1.914	3881
70	146.03	3.39	32	1.914	4429
70	146.52	3.39	32	1.914	4505
70	146.98	3.62	32	2.031	6177
70	147.51	3.62	32	2.031	4556
70	147.97	3.46	32	1.953	5749
70	148.49	3.54	32	1.992	7865
70	149.05	3.46	32	1.953	6811
70	149.54	3.39	32	1.914	8082
70	150.03	3.31	32	1.875	7184
70	150.66	3.39	32	1.914	8925
70	151.05	3.23	32	1.836	12241
70	151.51	3.15	32	1.797	12041
70	151.97	3.23	32	1.836	12063
70	152.56	3.31	32	1.875	11276
70	153.05	3.46	32	1.953	10591
70	153.51	3.70	32	2.07	8818
70	154.07	3.54	32	1.992	11114
70	154.59	3.39	32	1.914	12353
70	155.12	3.39	32	1.914	11801
70	155.58	3.46	32	1.953	11985
70	156.07	3.39	32	1.914	12460
70	156.10	3.39	32	1.914	12961

70	156.53	3.39	32	1.914	11952
70	157.09	3.39	32	1.914	11836
70	157.55	3.46	32	1.953	11638
70	157.55	3.46	32	1.953	12360
70	158.17	3.54	32	1.992	12829
70	158.66	3.70	32	2.07	12129
70	159.15	3.78	32	2.109	11160
70	159.65	3.78	32	2.109	10816
70	160.17	3.78	32	2.109	10467
70	160.66	3.86	32	2.148	11002
70	161.06	3.86	32	2.148	9544
70	161.61	4.21	32	2.344	8369
70	162.14	3.94	32	2.188	9170
70	162.66	3.86	32	2.148	10426
70	163.09	3.86	32	2.148	10992
70	163.58	3.86	32	2.148	10791
70	164.07	3.78	32	2.109	11904
70	164.57	3.78	32	2.109	11435
70	165.09	3.78	32	2.109	9845
70	165.62	3.78	32	2.109	10830
70	166.11	3.78	32	2.109	11040
70	166.63	3.78	32	2.109	10325
70	167.09	3.78	32	2.109	10450
70	167.65	3.78	32	2.109	11056
70	168.04	3.78	32	2.109	11385
70	168.57	3.78	32	2.109	11769
70	169.09	3.86	32	2.148	9721
70	169.59	4.17	32	2.305	7279
70	170.11	3.86	32	2.148	8591
70	170.73	3.78	32	2.109	10419
70	171.16	3.78	32	2.109	11416
70	171.65	3.86	32	2.148	11323
70	172.08	3.78	32	2.109	10876
70	172.70	3.78	32	2.109	10973
70	173.13	3.78	32	2.109	12218
70	173.62	3.70	32	2.07	11413
70	174.11	3.70	32	2.07	11890
70	174.57	3.78	32	2.109	11055
70	175.13	3.86	32	2.148	11072
70	175.75	3.78	32	2.109	11605
70	176.18	3.78	32	2.109	12768
70	176.67	3.78	32	2.109	11149
70	177.10	3.78	32	2.109	10815
70	177.59	4.02	32	2.227	8450
70	178.08	3.86	32	2.148	9351
70	178.61	3.78	32	2.109	10608
70	179.20	3.78	32	2.109	11510

70	179.20	3.78	32	2.109	11005
70	179.69	3.78	32	2.109	11282
70	180.22	3.70	32	2.07	10585
70	180.68	3.62	32	2.031	11495
70	181.20	3.70	32	2.07	11443
70	181.69	3.62	32	2.031	12066
70	182.19	3.62	32	2.031	11535
70	182.71	3.78	32	2.109	10926
70	183.17	3.78	32	2.109	10511
70	183.69	3.62	32	2.031	11260
70	184.25	3.62	32	2.031	11695
70	184.74	3.70	32	2.07	12402
70	185.30	3.86	32	2.148	9423
70	185.73	4.02	32	2.227	8985
70	186.25	3.70	32	2.07	10405
70	186.81	3.62	32	2.031	10529
70	187.24	3.62	32	2.031	11500
70	187.66	3.62	32	2.031	11432
70	188.25	3.62	32	2.031	10897
70	188.68	3.62	32	2.031	10821
70	189.24	3.62	32	2.031	11504
70	189.80	3.54	32	1.992	10722
70	190.26	3.70	32	2.07	11563
70	190.65	3.62	32	2.031	10426
70	191.21	3.78	32	2.109	10527
70	191.67	3.78	32	2.109	11452
70	192.29	3.78	32	2.109	11485
70	192.72	3.86	32	2.148	11111
70	193.24	3.86	32	2.148	9404
70	193.73	4.21	32	2.344	8117
70	194.36	4.02	32	2.227	9557
70	194.82	4.02	32	2.227	11029
70	195.31	4.09	32	2.266	10427
70	195.90	4.09	32	2.266	9925
70	196.29	4.17	32	2.305	11432
70	196.88	4.17	32	2.305	9500
70	197.34	4.09	32	2.266	10106
70	197.80	4.09	32	2.266	10593
70	198.36	4.09	32	2.266	10891
70	198.79	4.02	32	2.227	10958
70	199.34	4.09	32	2.266	10762
70	199.90	4.17	32	2.305	10845
70	200.43	4.09	32	2.266	11011
70	200.82	4.09	32	2.266	10957
70	201.35	4.21	32	2.344	10163
70	201.87	4.37	32	2.422	8521
70	202.40	4.09	32	2.266	10831

70	202.85	4.02	32	2.227	10783
70	203.28	4.02	32	2.227	11365
70	203.77	4.02	32	2.227	11456
70	204.33	3.94	32	2.188	10922
70	204.89	3.94	32	2.188	10973
70	205.35	3.94	32	2.188	12406
70	205.84	3.94	32	2.188	11189
70	206.36	4.02	32	2.227	11292
70	206.86	3.94	32	2.188	11872
70	207.35	3.94	32	2.188	10435
70	207.84	3.94	32	2.188	12051
70	208.40	3.94	32	2.188	11897
70	208.83	3.94	32	2.188	12668
70	209.42	4.09	32	2.266	8643
70	209.84	4.45	32	2.461	6914
70	210.40	4.09	32	2.266	9386
70	210.89	3.94	32	2.188	12689
70	211.32	3.94	32	2.188	11425
70	211.81	3.94	32	2.188	11722
70	212.34	3.94	32	2.188	11200
70	212.80	3.86	32	2.148	11645
70	213.29	3.86	32	2.148	11123
70	213.85	3.94	32	2.188	11518
70	214.47	4.02	32	2.227	10675
70	214.99	4.02	32	2.227	12651
70	215.49	4.02	32	2.227	10903
70	215.91	4.02	32	2.227	11262
70	216.44	4.09	32	2.266	9983
70	216.96	4.21	32	2.344	9947
70	217.42	4.21	32	2.344	8263
70	217.88	4.53	32	2.5	6886
70	218.47	4.21	32	2.344	8418
70	218.90	4.09	32	2.266	9503
70	219.46	4.09	32	2.266	10608
70	219.91	4.09	32	2.266	8557
70	220.44	4.09	32	2.266	9337
70	220.93	4.09	32	2.266	10539
70	221.49	4.09	32	2.266	9928
70	221.92	4.09	32	2.266	10606
70	222.47	4.17	32	2.305	11505
70	222.93	4.09	32	2.266	9342
70	223.43	4.02	32	2.227	9988
70	223.95	4.09	32	2.266	10049
70	224.44	4.17	32	2.305	10431
70	224.90	4.17	32	2.305	9659
70	225.39	4.21	32	2.344	8435
70	225.85	4.69	32	2.578	7028

70	226.48	4.21	32	2.344	9032
70	227.00	4.17	32	2.305	10750
70	227.53	4.17	32	2.305	11005
70	228.02	4.17	32	2.305	9881
70	228.58	4.09	32	2.266	11068
70	229.10	4.17	32	2.305	8923
70	229.53	4.09	32	2.266	9395
70	229.95	4.17	32	2.305	9793
70	230.41	4.17	32	2.305	9852
70	230.97	4.21	32	2.344	10264
70	231.46	4.29	32	2.383	9424
70	232.09	4.21	32	2.344	10021
70	232.58	4.21	32	2.344	9426
70	232.61	4.21	32	2.344	9779
71	0.23	4.17	34	2.305	11425
71	0.69	4.17	34	2.305	10985
71	1.21	4.09	34	2.266	10999
71	1.80	4.09	34	2.266	11135
71	2.26	4.09	34	2.266	11567
71	2.82	4.17	34	2.305	10169
71	3.28	4.09	34	2.266	11213
71	3.71	4.17	34	2.305	10790
71	4.13	4.09	34	2.266	10435
71	4.69	4.17	34	2.305	10853
71	5.25	4.09	34	2.266	11169
71	5.74	4.09	34	2.266	10889
71	6.23	4.09	34	2.266	11220
71	6.82	4.21	34	2.344	9383
71	7.38	4.53	34	2.5	6358
71	7.84	4.17	34	2.305	8561
71	8.30	4.02	34	2.227	10140
71	8.79	4.02	34	2.227	11035
71	9.28	4.02	34	2.227	11430
71	9.81	4.02	34	2.227	11086
71	10.33	4.02	34	2.227	11323
71	10.76	4.09	34	2.266	11296
71	11.29	4.02	34	2.227	10290
71	11.78	4.09	34	2.266	10984
71	12.34	4.02	34	2.227	11429
71	12.83	4.02	34	2.227	11219
71	13.39	3.94	34	2.188	11390
71	13.78	4.02	34	2.227	9725
71	14.37	4.02	34	2.227	9246
71	14.80	4.17	34	2.305	7329
71	15.35	4.53	34	2.5	5783
71	15.85	4.09	34	2.266	7599
71	16.27	4.02	34	2.227	8705

71	16.83	4.02	34	2.227	9398
71	17.36	3.94	34	2.188	10988
71	17.78	3.94	34	2.188	8747
71	18.31	3.86	34	2.148	9061
71	18.80	3.94	34	2.188	10504
71	19.39	3.86	34	2.148	11244
71	19.95	3.86	34	2.148	10838
71	20.51	3.94	34	2.188	11730
71	20.90	3.94	34	2.188	11169
71	20.93	3.94	34	2.188	11958
71	21.42	3.94	34	2.188	11173
71	21.46	3.94	34	2.188	12172
71	21.88	3.94	34	2.188	11351
71	22.34	4.02	34	2.227	11388
71	22.80	4.17	34	2.305	10020
71	23.39	4.37	34	2.422	7195
71	23.79	4.17	34	2.305	8258
71	24.34	3.94	34	2.188	10300
71	24.84	3.94	34	2.188	10800
71	25.39	3.94	34	2.188	11309
71	25.85	3.94	34	2.188	10671
71	26.41	4.02	34	2.227	10859
71	26.90	3.94	34	2.188	11454
71	27.40	4.02	34	2.227	10607
71	27.85	4.02	34	2.227	10588
71	28.38	4.02	34	2.227	9974
71	28.87	4.09	34	2.266	9377
71	29.46	4.02	34	2.227	9217
71	29.99	4.17	34	2.305	9690
71	30.41	4.17	34	2.305	10919
71	30.91	4.21	34	2.344	9435
71	31.43	4.61	34	2.539	7359
71	31.92	4.17	34	2.305	9389
71	32.48	4.09	34	2.266	9410
71	32.84	4.17	34	2.305	8829
71	33.37	4.17	34	2.305	8680
71	33.92	4.09	34	2.266	9980
71	34.45	4.17	34	2.305	9302
71	34.94	4.17	34	2.305	8513
71	35.47	4.09	34	2.266	9844
71	35.93	4.09	34	2.266	10264
71	36.45	4.09	34	2.266	10412
71	36.98	4.09	34	2.266	10493
71	37.40	4.17	34	2.305	9651
71	37.99	4.02	34	2.227	10388
71	38.45	4.02	34	2.227	10210
71	39.01	4.09	34	2.266	9369

71	39.53	4.29	34	2.383	8329
71	40.03	3.94	34	2.188	9535
71	40.52	3.86	34	2.148	10582
71	40.98	3.94	34	2.188	10574
71	41.60	3.78	34	2.109	10542
71	42.09	3.78	34	2.109	11748
71	42.59	3.86	34	2.148	10479
71	43.04	3.78	34	2.109	11486
71	43.44	3.70	34	2.07	10610
71	44.03	3.78	34	2.109	11097
71	44.59	3.86	34	2.148	10554
71	45.01	3.70	34	2.07	10508
71	45.60	3.78	34	2.109	11042
71	46.06	3.70	34	2.07	11341
71	46.49	3.78	34	2.109	11256
71	47.05	3.94	34	2.188	9742
71	47.57	4.21	34	2.344	7584
71	47.97	4.02	34	2.227	9556
71	48.52	3.78	34	2.109	11211
71	49.05	3.78	34	2.109	11042
71	49.64	3.86	34	2.148	10747
71	50.07	3.78	34	2.109	10733
71	50.52	3.78	34	2.109	10198
71	51.05	3.86	34	2.148	9532
71	51.57	3.78	34	2.109	11175
71	52.10	3.78	34	2.109	11373
71	52.56	3.78	34	2.109	9829
71	53.08	3.78	34	2.109	10231
71	53.58	3.86	34	2.148	10329
71	54.10	3.94	34	2.188	10051
71	54.66	3.86	34	2.148	11138
71	55.15	3.94	34	2.188	10354
71	55.68	4.17	34	2.305	8225
71	56.17	4.02	34	2.227	9754
71	56.63	4.02	34	2.227	9965
71	57.09	4.09	34	2.266	10369
71	57.51	3.86	34	2.148	11306
71	58.17	3.78	34	2.109	11664
71	58.69	3.78	34	2.109	9791
71	58.69	3.78	34	2.109	10470
71	59.15	3.86	34	2.148	12578
71	59.71	3.78	34	2.109	10481
71	60.10	3.94	34	2.188	11550
71	60.60	3.86	34	2.148	11870
71	61.19	3.86	34	2.148	10656
71	61.68	3.78	34	2.109	11403
71	62.14	3.78	34	2.109	11570

71	62.53	3.78	34	2.109	10239
71	63.22	4.02	34	2.227	8544
71	63.75	4.21	34	2.344	8416
71	64.21	3.94	34	2.188	10716
71	64.73	3.86	34	2.148	10466
71	65.22	3.94	34	2.188	10344
71	65.62	3.78	34	2.109	11508
71	66.21	3.78	34	2.109	12403
71	66.67	3.70	34	2.07	11611
71	67.13	3.78	34	2.109	12389
71	67.68	3.78	34	2.109	12277
71	68.14	3.78	34	2.109	10855
71	68.70	3.78	34	2.109	11084
71	69.26	3.78	34	2.109	12589
71	69.69	3.86	34	2.148	11969
71	70.21	3.86	34	2.148	11400
71	70.64	3.86	34	2.148	11862
71	71.13	4.02	34	2.227	10376
71	71.65	4.29	34	2.383	8640
71	72.21	4.02	34	2.227	10667
71	72.64	3.86	34	2.148	9180
71	73.10	4.02	34	2.227	9578
71	73.56	4.02	34	2.227	9788
71	74.11	4.02	34	2.227	8780
71	74.64	3.78	34	2.109	10958
71	75.13	3.70	34	2.07	11254
71	75.72	3.62	34	2.031	11289
71	76.21	3.62	34	2.031	10016
71	76.71	3.62	34	2.031	11857
71	77.20	3.70	34	2.07	11789
71	77.69	3.62	34	2.031	11431
71	78.15	3.78	34	2.109	10341
71	78.67	3.62	34	2.031	10913
71	79.20	3.70	34	2.07	10219
71	79.72	3.94	34	2.188	7194
71	80.22	3.54	34	1.992	9360
71	80.71	3.46	34	1.953	11551
71	81.33	3.39	34	1.914	12157
71	81.76	3.23	34	1.836	12404
71	82.19	3.07	34	1.758	8434
71	82.64	3.23	34	1.836	5710
71	83.27	3.39	34	1.914	4462
71	83.73	3.31	34	1.875	5028
71	84.25	3.39	34	1.914	4305
71	84.78	3.31	34	1.875	5344
71	85.30	3.54	34	1.992	4623
71	85.76	3.62	34	2.031	4170

71	86.29	3.70	34	2.07	3210
71	86.78	3.62	34	2.031	4480
71	87.30	3.54	34	1.992	3866
71	87.76	3.46	34	1.953	4359
71	88.32	3.31	34	1.875	3695
71	88.75	3.62	34	2.031	2534
71	89.24	3.86	34	2.148	2244
71	89.80	3.70	34	2.07	4047
71	90.26	3.62	34	2.031	4859
71	90.78	3.78	34	2.109	4679
71	91.31	3.70	34	2.07	5371
71	91.73	3.94	34	2.188	5252
71	92.32	3.86	34	2.148	2728
71	92.81	3.86	34	2.148	4556
71	93.31	3.86	34	2.148	3601
71	93.77	3.94	34	2.188	4812
71	94.32	4.02	34	2.227	6138
71	94.72	3.94	34	2.188	7305
71	95.31	3.94	34	2.188	5143
71	95.83	3.94	34	2.188	6517
71	96.26	3.78	34	2.109	6476
71	96.82	3.70	34	2.07	7195
71	97.24	3.70	34	2.07	6901
71	97.83	3.94	34	2.188	6338
71	98.33	3.78	34	2.109	5924
71	98.85	3.78	34	2.109	6368
71	99.34	3.78	34	2.109	7333
71	99.34	3.78	34	2.109	7742
71	99.84	3.78	34	2.109	5840
71	100.36	3.94	34	2.188	5340
71	100.82	3.78	34	2.109	4885
71	101.35	3.86	34	2.148	4508
71	101.87	4.02	34	2.227	5835
71	102.36	3.94	34	2.188	4818
71	102.89	3.86	34	2.148	4344
71	103.35	3.78	34	2.109	5168
71	103.90	3.78	34	2.109	5149
71	104.40	3.78	34	2.109	4874
71	104.92	3.78	34	2.109	6130
71	105.31	3.70	34	2.07	5492
71	105.91	3.70	34	2.07	4125
71	106.36	3.70	34	2.07	3921
71	106.89	3.78	34	2.109	4638
71	107.38	4.17	34	2.305	5286
71	107.94	3.94	34	2.188	3899
71	108.37	3.94	34	2.188	5097
71	108.83	3.94	34	2.188	6237

71	109.28	3.94	34	2.188	5935
71	109.91	4.17	34	2.305	5851
71	110.40	4.17	34	2.305	5988
71	110.86	4.17	34	2.305	5209
71	111.48	4.09	34	2.266	6070
71	111.88	4.02	34	2.227	6224
71	112.43	4.17	34	2.305	5507
71	112.93	4.02	34	2.227	5390
71	112.93	4.02	34	2.227	5803
71	113.45	4.02	34	2.227	6115
71	113.91	3.94	34	2.188	5719
71	114.47	3.94	34	2.188	5840
71	114.86	3.94	34	2.188	6134
71	115.42	3.86	34	2.148	5681
71	115.91	3.86	34	2.148	4687
71	116.47	3.94	34	2.188	4185
71	116.93	4.17	34	2.305	3106
71	117.39	3.94	34	2.188	4484
71	117.85	3.70	34	2.07	4392
71	118.37	3.94	34	2.188	3774
71	118.86	3.62	34	2.031	4775
71	119.39	3.62	34	2.031	4776
71	119.91	3.62	34	2.031	7215
71	120.41	3.62	34	2.031	6841
71	120.90	3.54	34	1.992	8019
71	121.46	3.46	34	1.953	7706
71	121.85	3.54	34	1.992	8164
71	122.38	3.62	34	2.031	6248
71	122.87	3.62	34	2.031	6289
71	123.43	3.54	34	1.992	6967
71	123.95	3.78	34	2.109	4885
71	124.41	3.78	34	2.109	4221
71	124.97	3.62	34	2.031	4607
71	125.49	3.70	34	2.07	4196
71	125.92	3.94	34	2.188	3611
71	126.48	3.94	34	2.188	3913
71	126.90	3.78	34	2.109	4428
71	127.36	3.70	34	2.07	4855
71	127.89	3.78	34	2.109	4282
71	128.48	4.02	34	2.227	4907
71	128.97	3.78	34	2.109	5521
71	129.49	3.70	34	2.07	5926
71	130.05	3.70	34	2.07	5389
71	130.51	3.70	34	2.07	6705
71	131.04	3.78	34	2.109	5154
71	131.43	3.78	34	2.109	4832
71	131.99	3.86	34	2.148	5324

71	132.48	3.94	34	2.188	6176
71	133.01	4.02	34	2.227	7116
71	133.46	4.21	34	2.344	5813
71	134.06	4.29	34	2.383	6973
71	134.61	4.09	34	2.266	8814
71	135.04	4.21	34	2.344	13384
71	135.63	4.29	34	2.383	9641
71	135.99	4.37	34	2.422	8678
71	136.45	4.29	34	2.383	7762
71	137.01	4.29	34	2.383	8744
71	137.53	4.21	34	2.344	6923
71	138.09	4.29	34	2.383	5056
71	138.62	4.21	34	2.344	5278
71	139.14	4.21	34	2.344	5055
71	139.67	4.09	34	2.266	7094
71	140.09	4.09	34	2.266	5787
71	140.62	4.09	34	2.266	5968
71	141.01	4.17	34	2.305	5740
71	141.60	4.09	34	2.266	6322
71	142.06	4.17	34	2.305	4846
71	142.65	4.21	34	2.344	4855
71	143.14	4.21	34	2.344	5855
71	143.64	4.09	34	2.266	6509
71	144.16	4.02	34	2.227	7359
71	144.72	3.94	34	2.188	8501
71	145.18	3.94	34	2.188	6755
71	145.70	3.94	34	2.188	5512
71	146.13	3.86	34	2.148	6260
71	146.65	3.78	34	2.109	6144
71	146.65	3.78	34	2.109	5970
71	147.15	3.78	34	2.109	5023
71	147.70	4.02	34	2.227	4405
71	148.13	3.78	34	2.109	5220
71	148.65	3.78	34	2.109	4853
71	149.21	3.78	34	2.109	5320
71	149.67	3.78	34	2.109	4849
71	150.10	3.78	34	2.109	4595
71	150.66	3.70	34	2.07	5543
71	151.25	3.54	34	1.992	7079
71	151.67	3.62	34	2.031	6134
71	152.10	3.46	34	1.953	7012
71	152.59	3.70	34	2.07	8206
71	153.12	3.62	34	2.031	7907
71	153.64	3.62	34	2.031	5101
71	154.17	3.78	34	2.109	10351
71	154.72	3.70	34	2.07	11910
71	155.22	3.78	34	2.109	11245

71	155.68	3.70	34	2.07	11394
71	156.27	3.86	34	2.148	10379
71	156.69	4.09	34	2.266	9025
71	157.25	3.86	34	2.148	10381
71	157.71	3.86	34	2.148	11650
71	158.20	3.78	34	2.109	12317
71	158.69	3.94	34	2.188	12814
71	159.19	3.94	34	2.188	12239
71	159.68	3.94	34	2.188	12797
71	160.17	3.94	34	2.188	12858
71	160.66	4.02	34	2.227	12426
71	161.15	4.02	34	2.227	10651
71	161.71	4.02	34	2.227	11417
71	162.20	4.02	34	2.227	11027
71	162.73	4.02	34	2.227	11745
71	163.16	4.02	34	2.227	10826
71	163.71	4.09	34	2.266	10263
71	164.24	4.21	34	2.344	7969
71	164.73	4.53	34	2.5	6500
71	165.22	4.17	34	2.305	8203
71	165.75	4.09	34	2.266	9033
71	166.17	3.94	34	2.188	9605
71	166.67	3.94	34	2.188	11263
71	167.22	3.94	34	2.188	10476
71	167.68	3.94	34	2.188	10656
71	168.21	3.86	34	2.148	11295
71	168.73	3.86	34	2.148	10375
71	169.19	3.86	34	2.148	10356
71	169.23	3.86	34	2.148	10760
71	169.69	3.78	34	2.109	11895
71	169.72	3.78	34	2.109	12159
71	170.21	3.86	34	2.148	10459
71	170.70	3.86	34	2.148	10832
71	171.26	3.78	34	2.109	12043
71	171.78	3.86	34	2.148	11302
71	172.24	3.94	34	2.188	10577
71	172.74	4.29	34	2.383	8650
71	173.29	4.02	34	2.227	10273
71	173.79	3.94	34	2.188	10737
71	174.31	3.94	34	2.188	11020
71	174.77	3.78	34	2.109	11431
71	175.33	3.78	34	2.109	11773
71	175.82	3.94	34	2.188	9869
71	176.35	4.29	34	2.383	8323
71	176.87	4.02	34	2.227	11204
71	176.90	4.02	34	2.227	11027
71	177.33	3.94	34	2.188	12797

71	177.76	3.86	34	2.148	12500
71	178.31	3.86	34	2.148	11274
71	178.84	3.86	34	2.148	12710
71	179.36	3.94	34	2.188	13075
71	179.86	3.94	34	2.188	12252
71	180.35	3.94	34	2.188	9210
71	180.84	4.21	34	2.344	7547
71	181.36	3.94	34	2.188	9404
71	181.86	3.86	34	2.148	10302
71	182.38	3.86	34	2.148	10519
71	182.81	3.86	34	2.148	10899
71	183.33	3.86	34	2.148	11636
71	183.83	3.86	34	2.148	10223
71	184.35	3.94	34	2.188	10354
71	184.88	3.78	34	2.109	11239
71	185.40	3.86	34	2.148	10980
71	185.83	3.86	34	2.148	10482
71	186.35	3.94	34	2.188	10673
71	186.91	3.94	34	2.188	11987
71	187.43	4.02	34	2.227	11496
71	187.86	3.94	34	2.188	12161
71	188.29	4.09	34	2.266	10943
71	188.85	4.37	34	2.422	7555
71	189.44	4.09	34	2.266	10330
71	189.93	4.02	34	2.227	12272
71	189.93	4.02	34	2.227	11559
71	190.35	4.09	34	2.266	10265
71	190.91	3.94	34	2.188	11394
71	191.40	4.02	34	2.227	10941
71	191.90	4.02	34	2.227	12517
71	192.39	4.02	34	2.227	12326
71	192.91	3.94	34	2.188	11241
71	193.41	3.94	34	2.188	11057
71	193.86	3.94	34	2.188	11131
71	194.42	3.94	34	2.188	12596
71	194.95	3.86	34	2.148	11338
71	195.47	4.02	34	2.227	11350
71	195.93	4.09	34	2.266	11998
71	196.46	4.09	34	2.266	11397
71	196.92	4.37	34	2.422	8799
71	197.44	4.09	34	2.266	10863
71	197.93	4.17	34	2.305	11316
71	198.49	4.09	34	2.266	12077
71	198.92	4.09	34	2.266	11231
71	199.41	4.09	34	2.266	11836
71	199.97	4.17	34	2.305	11070
71	200.46	4.17	34	2.305	10886

71	200.89	4.09	34	2.266	10633
71	201.35	4.17	34	2.305	11758
71	201.87	4.17	34	2.305	11327
71	202.26	4.17	34	2.305	11767
71	202.95	4.09	34	2.266	10704
71	203.51	4.17	34	2.305	13231
71	203.97	4.17	34	2.305	10618
71	204.56	4.29	34	2.383	8973
71	205.02	4.53	34	2.5	7383
71	205.51	4.17	34	2.305	9207
71	205.94	4.09	34	2.266	10697
71	206.50	4.09	34	2.266	11909
71	207.02	4.21	34	2.344	10971
71	207.51	4.17	34	2.305	11785
71	208.04	4.17	34	2.305	9805
71	208.56	4.21	34	2.344	10698
71	209.02	4.09	34	2.266	11246
71	209.55	4.21	34	2.344	11006
71	209.94	4.17	34	2.305	9995
71	210.50	4.17	34	2.305	10165
71	210.96	4.17	34	2.305	10099
71	211.38	4.21	34	2.344	10799
71	211.98	4.21	34	2.344	10567
71	212.47	4.29	34	2.383	9093
71	212.96	4.69	34	2.578	7532
71	213.55	4.29	34	2.383	8811
71	214.04	4.21	34	2.344	9845
71	214.53	4.21	34	2.344	9732
71	215.06	4.21	34	2.344	10622
71	215.58	4.21	34	2.344	9352
71	216.08	4.17	34	2.305	10075
71	216.50	4.17	34	2.305	9736
71	216.96	4.17	34	2.305	9591
71	217.52	4.21	34	2.344	9911
71	218.08	4.29	34	2.383	10612
71	218.57	4.21	34	2.344	10309
71	219.09	4.21	34	2.344	9486
71	219.52	4.17	34	2.305	10589
71	220.05	4.09	34	2.266	10015
71	220.41	4.09	34	2.266	8779
71	221.06	4.61	34	2.539	6455
71	221.52	4.29	34	2.383	7801
71	222.08	4.21	34	2.344	9448
71	222.54	4.09	34	2.266	11211
71	223.06	4.09	34	2.266	10684
71	223.52	4.09	34	2.266	10636
71	223.52	4.09	34	2.266	10383

71	224.05	4.09	34	2.266	9984
71	224.48	4.09	34	2.266	9062
71	225.00	4.09	34	2.266	9928
71	225.56	4.02	34	2.227	10247
71	226.12	4.02	34	2.227	9573
71	226.54	3.86	34	2.148	9749
71	227.10	3.94	34	2.188	9652
71	227.59	3.94	34	2.188	11076
71	228.05	4.02	34	2.227	11152
71	228.58	4.02	34	2.227	9148
71	229.07	4.37	34	2.422	5988
71	229.46	4.17	34	2.305	6180
71	230.02	4.09	34	2.266	9869
71	230.58	4.02	34	2.227	9364
71	231.07	4.02	34	2.227	9890
71	231.56	4.02	34	2.227	9826
71	232.12	4.02	34	2.227	10532
71	232.61	4.02	34	2.227	10360
71	233.17	3.94	34	2.188	10224

Panel	File Number	Distance X (ft)	Depth (in)	Distance Y (ft)	Time(ns)	Amplitude (dB)
D11-12	73	0.43	1.54	2	1.016	12519
D11-12	73	0.69	1.61	2	1.055	12552
D11-12	73	1.05	1.61	2	1.055	13750
D11-12	73	1.38	1.61	2	1.055	13328
D11-12	73	1.67	1.61	2	1.055	13720
D11-12	73	1.97	1.61	2	1.055	13897
D11-12	73	2.26	1.61	2	1.055	12755
D11-12	73	2.59	1.61	2	1.055	14368
D11-12	73	2.89	1.61	2	1.055	14330
D11-12	73	3.18	1.61	2	1.055	14619
D11-12	73	3.51	1.54	2	1.016	14761
D11-12	73	3.84	1.61	2	1.055	14424
D11-12	73	4.17	1.61	2	1.055	14723
D11-12	73	4.46	1.61	2	1.055	14602
D11-12	73	4.76	1.61	2	1.055	15065
D11-12	73	5.12	1.61	2	1.055	14324
D11-12	73	5.41	1.61	2	1.055	14522
D11-12	73	5.71	1.61	2	1.055	14902
D11-12	73	6.07	1.54	2	1.016	14518
D11-12	73	6.36	1.54	2	1.016	15582
D11-12	73	6.69	1.69	2	1.094	11910
D11-12	73	7.12	2.91	2	1.68	3000
D11-12	73	7.48	1.69	2	1.094	7255
D11-12	73	7.91	1.61	2	1.055	6913
D11-12	74	0.23	1.54	4	1.016	8375
D11-12	74	0.46	1.61	4	1.055	7999
D11-12	74	0.72	1.22	4	0.898	12499
D11-12	74	1.02	1.42	4	0.977	11732
D11-12	74	1.31	1.42	4	0.977	10861
D11-12	74	1.64	1.42	4	0.977	12946
D11-12	74	1.97	1.42	4	0.977	13003
D11-12	74	2.30	1.42	4	0.977	13233
D11-12	74	2.59	1.42	4	0.977	13217
D11-12	74	2.89	1.42	4	0.977	13031
D11-12	74	3.18	1.42	4	0.977	14182
D11-12	74	3.67	1.22	4	0.898	11787
D11-12	74	4.00	1.42	4	0.977	14344
D11-12	74	4.30	1.42	4	0.977	14189
D11-12	74	4.63	1.42	4	0.977	14327
D11-12	74	4.95	1.42	4	0.977	14027
D11-12	74	5.25	1.42	4	0.977	13867
D11-12	74	5.58	1.42	4	0.977	14842
D11-12	74	5.87	1.42	4	0.977	13921
D11-12	74	6.20	1.42	4	0.977	14467
D11-12	74	6.53	1.34	4	0.938	15131
D11-12	74	6.82	1.54	4	1.016	12222

D11-12	75	0.23	1.54	6	1.016	7919
D11-12	75	0.56	1.42	6	0.977	11217
D11-12	75	0.85	1.14	6	0.859	15312
D11-12	75	1.12	1.34	6	0.938	14196
D11-12	75	1.44	1.34	6	0.938	14433
D11-12	75	1.77	1.34	6	0.938	15367
D11-12	75	2.07	1.34	6	0.938	14595
D11-12	75	2.40	1.34	6	0.938	13989
D11-12	75	2.72	1.34	6	0.938	13790
D11-12	75	3.05	1.34	6	0.938	14475
D11-12	75	3.35	1.34	6	0.938	13737
D11-12	75	3.67	1.34	6	0.938	13691
D11-12	75	3.97	1.14	6	0.859	15615
D11-12	75	4.30	1.34	6	0.938	13719
D11-12	75	4.59	1.34	6	0.938	14981
D11-12	75	4.92	1.34	6	0.938	14790
D11-12	75	5.22	1.34	6	0.938	14398
D11-12	75	5.54	1.34	6	0.938	14118
D11-12	75	5.84	1.34	6	0.938	14257
D11-12	75	6.17	1.34	6	0.938	14314
D11-12	75	6.50	1.34	6	0.938	14523
D11-12	75	6.79	1.22	6	0.898	15653
D11-12	75	7.12	1.42	6	0.977	11837
D11-12	75	7.45	1.54	6	1.016	9296
D12-13	76	0.16	1.54	2	1.016	11675
D12-13	76	0.69	1.42	2	0.977	14080
D12-13	76	0.98	1.42	2	0.977	14558
D12-13	76	1.31	1.42	2	0.977	15136
D12-13	76	1.64	1.42	2	0.977	14418
D12-13	76	1.94	1.42	2	0.977	14675
D12-13	76	2.26	1.42	2	0.977	14141
D12-13	76	2.59	1.42	2	0.977	14861
D12-13	76	2.89	1.42	2	0.977	14543
D12-13	76	3.22	1.42	2	0.977	15149
D12-13	76	3.51	1.14	2	0.859	12903
D12-13	76	3.84	1.34	2	0.938	14487
D12-13	76	4.17	1.34	2	0.938	14382
D12-13	76	4.46	1.34	2	0.938	14392
D12-13	76	4.79	1.34	2	0.938	14519
D12-13	76	5.09	1.34	2	0.938	14632
D12-13	76	5.12	1.34	2	0.938	14804
D12-13	76	5.41	1.34	2	0.938	14295
D12-13	76	5.74	1.34	2	0.938	13635
D12-13	76	6.04	1.22	2	0.898	13889
D12-13	76	6.36	1.14	2	0.859	11646
D12-13	76	6.66	1.34	2	0.938	12154
D12-13	77	0.36	1.54	4	1.016	14741

D12-13	77	0.69	1.54	4	1.016	13625
D12-13	77	0.92	1.54	4	1.016	13343
D12-13	77	1.18	1.54	4	1.016	13318
D12-13	77	1.44	1.54	4	1.016	14328
D12-13	77	1.74	1.54	4	1.016	14347
D12-13	77	2.07	1.54	4	1.016	14466
D12-13	77	2.40	1.54	4	1.016	14718
D12-13	77	2.72	1.54	4	1.016	13564
D12-13	77	3.02	1.54	4	1.016	15823
D12-13	77	3.31	1.54	4	1.016	13914
D12-13	77	3.64	1.54	4	1.016	14828
D12-13	77	3.97	1.54	4	1.016	14908
D12-13	77	4.27	1.54	4	1.016	14191
D12-13	77	4.59	1.54	4	1.016	14406
D12-13	77	4.89	1.54	4	1.016	14522
D12-13	77	5.22	1.42	4	0.977	14428
D12-13	77	5.54	1.42	4	0.977	13575
D12-13	77	5.84	1.42	4	0.977	14766
D12-13	77	6.14	1.54	4	1.016	12251
D12-13	77	6.56	1.61	4	1.055	14522
D12-13	78	0.16	1.14	6	0.859	15209
D12-13	78	0.46	1.14	6	0.859	16384
D12-13	78	0.79	1.22	6	0.898	15379
D12-13	78	1.12	1.14	6	0.859	15248
D12-13	78	1.44	1.14	6	0.859	15549
D12-13	78	1.74	1.14	6	0.859	16272
D12-13	78	2.07	1.14	6	0.859	15690
D12-13	78	2.36	1.14	6	0.859	15526
D12-13	78	2.69	1.22	6	0.898	15915
D12-13	78	3.02	1.14	6	0.859	15655
D12-13	78	3.31	1.14	6	0.859	15350
D12-13	78	3.64	1.14	6	0.859	14483
D12-13	78	3.97	1.14	6	0.859	14552
D12-13	78	4.27	1.14	6	0.859	15766
D12-13	78	4.59	1.14	6	0.859	15251
D12-13	78	4.89	1.14	6	0.859	15554
D12-13	78	5.22	1.14	6	0.859	15500
D12-13	78	5.54	1.02	6	0.82	14821
D12-13	78	5.84	1.14	6	0.859	15077
D12-13	78	6.17	1.14	6	0.859	13022
D9-10	79	0.16	1.42	2	0.977	5515
D9-10	79	0.46	1.34	2	0.938	7140
D9-10	79	0.75	1.22	2	0.898	7858
D9-10	79	1.08	1.22	2	0.898	8270
D9-10	79	1.41	1.22	2	0.898	8271
D9-10	79	1.71	1.22	2	0.898	8626
D9-10	79	2.03	1.22	2	0.898	8128

D9-10	79	2.33	1.22	2	0.898	8588
D9-10	79	2.66	1.22	2	0.898	8487
D9-10	79	2.99	1.22	2	0.898	7694
D9-10	79	3.28	1.22	2	0.898	7361
D9-10	79	3.58	1.22	2	0.898	8189
D9-10	79	3.90	1.22	2	0.898	8558
D9-10	79	4.20	1.22	2	0.898	8411
D9-10	79	4.49	1.22	2	0.898	8252
D9-10	79	4.82	1.22	2	0.898	8394
D9-10	79	5.15	1.22	2	0.898	7989
D9-10	79	5.45	1.22	2	0.898	7966
D9-10	79	5.74	1.22	2	0.898	8243
D9-10	79	6.07	1.22	2	0.898	8139
D9-10	79	6.40	1.22	2	0.898	8241
D9-10	79	6.69	1.22	2	0.898	8488
D9-10	79	7.02	1.22	2	0.898	7175
D9-10	79	7.32	1.34	2	0.938	5715
D9-10	79	7.64	1.34	2	0.938	6186
D9-10	80	0.20	1.14	4	0.859	6478
D9-10	80	0.46	1.02	4	0.82	8063
D9-10	80	0.75	1.14	4	0.859	7571
D9-10	80	1.08	1.14	4	0.859	7790
D9-10	80	1.41	1.14	4	0.859	7888
D9-10	80	1.74	1.14	4	0.859	7754
D9-10	80	2.03	1.14	4	0.859	7644
D9-10	80	2.36	1.02	4	0.82	7346
D9-10	80	2.69	1.14	4	0.859	7521
D9-10	80	2.99	1.14	4	0.859	7299
D9-10	80	3.28	1.14	4	0.859	7589
D9-10	80	3.54	1.14	4	0.859	8010
D9-10	80	3.81	1.14	4	0.859	7864
D9-10	80	4.10	1.14	4	0.859	7703
D9-10	80	4.40	1.14	4	0.859	7924
D9-10	80	4.72	1.14	4	0.859	8305
D9-10	80	5.05	1.14	4	0.859	8401
D9-10	80	5.38	1.14	4	0.859	7737
D9-10	80	5.68	1.14	4	0.859	7582
D9-10	80	5.97	1.14	4	0.859	8439
D9-10	80	6.23	1.14	4	0.859	7865
D9-10	80	6.53	1.22	4	0.898	7029
D9-10	80	6.86	1.34	4	0.938	5806
D9-10	81	0.07	1.34	6	0.938	6496
D9-10	81	0.36	1.02	6	0.82	8441
D9-10	81	0.66	1.22	6	0.898	7974
D9-10	81	0.98	1.22	6	0.898	8118
D9-10	81	1.31	1.22	6	0.898	8100
D9-10	81	1.61	1.22	6	0.898	8140

D9-10	81	1.94	1.14	6	0.859	7699
D9-10	81	2.23	1.22	6	0.898	7865
D9-10	81	2.56	1.22	6	0.898	7955
D9-10	81	2.89	1.14	6	0.859	7898
D9-10	81	3.12	1.02	6	0.82	7562
D9-10	81	3.41	1.22	6	0.898	8087
D9-10	81	3.74	1.22	6	0.898	7888
D9-10	81	4.04	1.14	6	0.859	7656
D9-10	81	4.40	1.14	6	0.859	7757
D9-10	81	4.69	1.22	6	0.898	7846
D9-10	81	5.02	1.22	6	0.898	8030
D9-10	81	5.31	1.22	6	0.898	8075
D9-10	81	5.64	1.22	6	0.898	8258
D9-10	81	5.94	1.14	6	0.859	8319
D9-10	81	6.23	1.02	6	0.82	7535
D9-10	81	6.53	1.22	6	0.898	7951
D8-9	82	0.16	1.02	2	0.82	6281
D8-9	82	0.49	1.14	2	0.859	7217
D8-9	82	0.82	1.22	2	0.898	7381
D8-9	82	1.12	1.22	2	0.898	7088
D8-9	82	1.44	1.14	2	0.859	7289
D8-9	82	1.77	1.14	2	0.859	6966
D8-9	82	2.07	1.14	2	0.859	6789
D8-9	82	2.40	1.22	2	0.898	7077
D8-9	82	2.72	1.14	2	0.859	6751
D8-9	82	3.02	1.22	2	0.898	7234
D8-9	82	3.35	1.02	2	0.82	6220
D8-9	82	3.64	1.14	2	0.859	6919
D8-9	82	4.00	1.22	2	0.898	7396
D8-9	82	4.33	1.14	2	0.859	6074
D8-9	82	4.56	1.14	2	0.859	7260
D8-9	82	4.89	1.22	2	0.898	7219
D8-9	82	5.18	1.22	2	0.898	7002
D8-9	82	5.48	1.22	2	0.898	6999
D8-9	82	5.77	1.22	2	0.898	7351
D8-9	82	6.07	1.34	2	0.938	7073
D8-9	82	6.33	1.22	2	0.898	4617
D8-9	83	0.07	1.02	4	0.82	6045
D8-9	83	0.33	1.14	4	0.859	7277
D8-9	83	0.66	1.14	4	0.859	7066
D8-9	83	0.95	1.22	4	0.898	7509
D8-9	83	1.28	1.14	4	0.859	7370
D8-9	83	1.61	1.14	4	0.859	6619
D8-9	83	1.90	1.14	4	0.859	6758
D8-9	83	2.23	1.14	4	0.859	6632
D8-9	83	2.53	1.14	4	0.859	6685
D8-9	83	2.85	1.14	4	0.859	7301

D8-9	83	3.18	1.02	4	0.82	5453
D8-9	83	3.48	1.14	4	0.859	6832
D8-9	83	3.81	1.14	4	0.859	6936
D8-9	83	4.13	1.02	4	0.82	6470
D8-9	83	4.43	1.14	4	0.859	6770
D8-9	83	4.76	1.02	4	0.82	6918
D8-9	83	5.09	1.14	4	0.859	7566
D8-9	83	5.38	1.14	4	0.859	6934
D8-9	83	5.71	1.14	4	0.859	7031
D8-9	83	6.00	1.14	4	0.859	6990
D8-9	83	6.33	1.22	4	0.898	7130
D8-9	83	6.59	1.22	4	0.898	4458
D8-9	84	0.46	1.14	6	0.859	7178
D8-9	84	0.72	1.14	6	0.859	6903
D8-9	84	1.02	1.14	6	0.859	7676
D8-9	84	1.35	1.14	6	0.859	7769
D8-9	84	1.67	1.02	6	0.82	6733
D8-9	84	1.97	1.14	6	0.859	7143
D8-9	84	2.30	1.14	6	0.859	7525
D8-9	84	2.62	1.14	6	0.859	7541
D8-9	84	2.92	1.14	6	0.859	7037
D8-9	84	3.25	1.02	6	0.82	6941
D8-9	84	3.54	1.14	6	0.859	7370
D8-9	84	3.87	1.14	6	0.859	7413
D8-9	84	4.20	1.14	6	0.859	7227
D8-9	84	4.53	1.02	6	0.82	7062
D8-9	84	4.82	1.14	6	0.859	7221
D8-9	84	5.18	1.14	6	0.859	7241
D8-9	84	5.48	1.14	6	0.859	7154
D8-9	84	5.81	1.14	6	0.859	6906
D8-9	84	6.10	1.02	6	0.82	6374
D8-9	84	6.43	1.14	6	0.859	6657
D8-9	84	6.69	1.22	6	0.898	4791
D7-8	85	0.23	1.34	2	0.938	6132
D7-8	85	0.56	1.22	2	0.898	6900
D7-8	85	0.85	1.14	2	0.859	7366
D7-8	85	1.18	1.14	2	0.859	7219
D7-8	85	1.51	1.14	2	0.859	7307
D7-8	85	1.84	1.22	2	0.898	6310
D7-8	85	2.13	1.14	2	0.859	6643
D7-8	85	2.49	1.22	2	0.898	7354
D7-8	85	2.79	1.22	2	0.898	6886
D7-8	85	3.08	1.14	2	0.859	6452
D7-8	85	3.41	1.14	2	0.859	6746
D7-8	85	3.74	1.14	2	0.859	6576
D7-8	85	4.07	1.14	2	0.859	7336
D7-8	85	4.36	1.22	2	0.898	7617

D7-8	85	4.66	1.22	2	0.898	7334
D7-8	85	4.99	1.14	2	0.859	7412
D7-8	85	5.31	1.22	2	0.898	7640
D7-8	85	5.64	1.22	2	0.898	7451
D7-8	85	5.94	1.22	2	0.898	7707
D7-8	85	6.23	1.14	2	0.859	7613
D7-8	85	6.56	1.22	2	0.898	7903
D7-8	86	0.30	1.22	4	0.898	4923
D7-8	86	0.56	1.02	4	0.82	5953
D7-8	86	0.85	1.02	4	0.82	6655
D7-8	86	1.18	1.02	4	0.82	6240
D7-8	86	1.51	1.02	4	0.82	6689
D7-8	86	1.80	1.02	4	0.82	6581
D7-8	86	2.10	1.02	4	0.82	6121
D7-8	86	2.46	1.14	4	0.859	6685
D7-8	86	2.76	1.02	4	0.82	6684
D7-8	86	3.05	1.02	4	0.82	6547
D7-8	86	3.41	1.02	4	0.82	6840
D7-8	86	3.71	1.14	4	0.859	7156
D7-8	86	4.04	0.91	4	0.781	6305
D7-8	86	4.36	1.14	4	0.859	7642
D7-8	86	4.66	1.14	4	0.859	7163
D7-8	86	4.99	1.14	4	0.859	7022
D7-8	86	5.31	1.14	4	0.859	6692
D7-8	86	5.61	1.14	4	0.859	7017
D7-8	86	5.94	1.14	4	0.859	7427
D7-8	86	6.27	1.14	4	0.859	7034
D7-8	86	6.56	1.14	4	0.859	7250
D7-8	86	6.89	1.02	4	0.82	7129
D7-8	87	0.16	1.61	6	1.055	3717
D7-8	87	0.46	1.34	6	0.938	5174
D7-8	87	0.75	1.22	6	0.898	6938
D7-8	87	1.08	1.34	6	0.938	6209
D7-8	87	1.41	1.34	6	0.938	6335
D7-8	87	1.71	1.34	6	0.938	6692
D7-8	87	2.03	1.34	6	0.938	7097
D7-8	87	2.33	1.34	6	0.938	7556
D7-8	87	2.66	1.34	6	0.938	7272
D7-8	87	2.95	1.42	6	0.977	7257
D7-8	87	3.28	1.34	6	0.938	7421
D7-8	87	3.58	1.42	6	0.977	6952
D7-8	87	3.90	1.14	6	0.859	5509
D7-8	87	4.23	1.42	6	0.977	7568
D7-8	87	4.56	1.42	6	0.977	7547
D7-8	87	4.86	1.42	6	0.977	7804
D7-8	87	5.18	1.34	6	0.938	7257
D7-8	87	5.51	1.34	6	0.938	7166

D7-8	87	5.81	1.42	6	0.977	7468
D7-8	87	6.14	1.42	6	0.977	7325
D7-8	87	6.43	1.42	6	0.977	7345
D7-8	87	6.73	1.14	6	0.859	5742
C7-8	88	0.20	1.42	6	0.977	7134
C7-8	88	0.56	0.91	6	0.781	5404
C7-8	88	0.85	1.34	6	0.938	7531
C7-8	88	1.15	1.34	6	0.938	7531
C7-8	88	1.51	1.34	6	0.938	6825
C7-8	88	1.80	1.34	6	0.938	7393
C7-8	88	2.10	1.34	6	0.938	6951
C7-8	88	2.43	1.34	6	0.938	7434
C7-8	88	2.76	1.42	6	0.977	8646
C7-8	88	3.02	1.42	6	0.977	8207
C7-8	88	3.31	1.14	6	0.859	7029
C7-8	88	3.77	1.42	6	0.977	8351
C7-8	88	4.10	1.42	6	0.977	6676
C7-8	88	4.36	1.42	6	0.977	6599
C7-8	88	4.63	1.34	6	0.938	6032
C7-8	88	4.95	1.34	6	0.938	6961
C7-8	88	5.25	1.34	6	0.938	7179
C7-8	88	5.58	1.34	6	0.938	7721
C7-8	88	5.84	1.34	6	0.938	7373
C7-8	88	6.10	1.22	6	0.898	6328
C7-8	88	6.46	1.42	6	0.977	6348
C7-8	89	0.20	1.22	4	0.898	5686
C7-8	89	0.49	1.22	4	0.898	5701
C7-8	89	0.82	1.02	4	0.82	6870
C7-8	89	1.15	1.22	4	0.898	7416
C7-8	89	1.48	1.14	4	0.859	7411
C7-8	89	1.77	1.22	4	0.898	7292
C7-8	89	2.07	1.22	4	0.898	7480
C7-8	89	2.40	1.22	4	0.898	7462
C7-8	89	2.72	1.22	4	0.898	7581
C7-8	89	3.05	1.22	4	0.898	7677
C7-8	89	3.35	1.22	4	0.898	7763
C7-8	89	3.67	1.14	4	0.859	8129
C7-8	89	3.97	1.22	4	0.898	7903
C7-8	89	4.30	1.22	4	0.898	7268
C7-8	89	4.59	1.22	4	0.898	7703
C7-8	89	4.92	1.22	4	0.898	7522
C7-8	89	5.22	1.22	4	0.898	7363
C7-8	89	5.54	1.22	4	0.898	7754
C7-8	89	5.84	1.22	4	0.898	7473
C7-8	89	5.87	1.22	4	0.898	7991
C7-8	89	6.20	1.22	4	0.898	7577
C7-8	89	6.69	1.14	4	0.859	7771

C7-8	89	7.02	1.34	4	0.938	7531
C7-8	89	7.25	1.14	4	0.859	7073
C7-8	90	0.26	1.22	2	0.898	5696
C7-8	90	0.52	1.22	2	0.898	7403
C7-8	90	0.82	1.22	2	0.898	7673
C7-8	90	1.15	1.22	2	0.898	7678
C7-8	90	1.48	1.22	2	0.898	7518
C7-8	90	1.77	1.22	2	0.898	7551
C7-8	90	2.10	1.22	2	0.898	6768
C7-8	90	2.40	1.22	2	0.898	7307
C7-8	90	2.76	1.22	2	0.898	7586
C7-8	90	3.05	1.14	2	0.859	6952
C7-8	90	3.35	1.22	2	0.898	7782
C7-8	90	3.38	1.22	2	0.898	7365
C7-8	90	3.67	1.22	2	0.898	8154
C7-8	90	4.00	1.22	2	0.898	8145
C7-8	90	4.33	1.22	2	0.898	7176
C7-8	90	4.63	1.22	2	0.898	7749
C7-8	90	4.99	1.22	2	0.898	7594
C7-8	90	5.38	1.22	2	0.898	7885
C7-8	90	5.71	1.22	2	0.898	7772
C7-8	90	5.97	1.14	2	0.859	7583
C7-8	90	6.46	1.34	2	0.938	7350
C7-8	90	6.79	1.34	2	0.938	6442
C6-7	91	0.33	1.02	6	0.82	7719
C6-7	91	0.66	1.02	6	0.82	6410
C6-7	91	0.95	1.02	6	0.82	6803
C6-7	91	1.25	1.02	6	0.82	7208
C6-7	91	1.57	1.02	6	0.82	7079
C6-7	91	1.90	1.02	6	0.82	7227
C6-7	91	2.20	1.02	6	0.82	7339
C6-7	91	2.53	1.02	6	0.82	7477
C6-7	91	2.82	1.02	6	0.82	7305
C6-7	91	3.15	1.14	6	0.859	7595
C6-7	91	3.48	0.91	6	0.781	6468
C6-7	91	3.81	1.02	6	0.82	7390
C6-7	91	4.10	1.14	6	0.859	7203
C6-7	91	4.43	1.14	6	0.859	7644
C6-7	91	4.72	1.14	6	0.859	7682
C6-7	91	5.05	1.14	6	0.859	7439
C6-7	91	5.35	1.14	6	0.859	7619
C6-7	91	5.68	1.14	6	0.859	7503
C6-7	91	5.97	1.14	6	0.859	7445
C6-7	91	6.30	0.79	6	0.742	5228
C6-7	91	6.63	1.14	6	0.859	6933
C6-7	91	6.92	1.14	6	0.859	6959
C6-7	92	0.33	1.02	4	0.82	5595

C6-7	92	0.62	1.02	4	0.82	6168
C6-7	92	0.92	1.02	4	0.82	5800
C6-7	92	1.21	1.02	4	0.82	6310
C6-7	92	1.57	1.02	4	0.82	6335
C6-7	92	1.90	1.02	4	0.82	5640
C6-7	92	2.20	1.02	4	0.82	6461
C6-7	92	2.53	1.02	4	0.82	6414
C6-7	92	2.82	1.14	4	0.859	6915
C6-7	92	3.15	1.02	4	0.82	6570
C6-7	92	3.44	1.02	4	0.82	6580
C6-7	92	3.77	1.14	4	0.859	7535
C6-7	92	4.10	1.14	4	0.859	7186
C6-7	92	4.30	1.14	4	0.859	7004
C6-7	92	4.59	1.14	4	0.859	6981
C6-7	92	4.89	1.14	4	0.859	7091
C6-7	92	5.22	1.14	4	0.859	6139
C6-7	92	5.51	1.14	4	0.859	6880
C6-7	92	5.84	1.02	4	0.82	6865
C6-7	92	6.17	1.14	4	0.859	6586
C6-7	93	0.26	1.02	2	0.82	6647
C6-7	93	0.59	1.02	2	0.82	7219
C6-7	93	0.89	0.91	2	0.781	7209
C6-7	93	1.18	1.02	2	0.82	7210
C6-7	93	1.54	1.02	2	0.82	7340
C6-7	93	1.84	1.02	2	0.82	7129
C6-7	93	2.13	1.02	2	0.82	7136
C6-7	93	2.49	1.02	2	0.82	7481
C6-7	93	2.79	1.02	2	0.82	7491
C6-7	93	3.12	1.02	2	0.82	7736
C6-7	93	3.41	1.02	2	0.82	7453
C6-7	93	3.74	1.02	2	0.82	7627
C6-7	93	4.07	1.14	2	0.859	7343
C6-7	93	4.40	1.14	2	0.859	7397
C6-7	93	4.72	1.02	2	0.82	7589
C6-7	93	5.02	1.02	2	0.82	7073
C6-7	93	5.31	1.02	2	0.82	6428
C6-7	93	5.61	1.02	2	0.82	6218
C6-7	93	5.94	1.02	2	0.82	6440
C6-7	93	6.27	1.02	2	0.82	6165
C6-7	93	6.56	1.14	2	0.859	6591
C6-7	93	6.89	1.14	2	0.859	6614
C5-6	94	0.10	1.22	6	0.898	5930
C5-6	94	0.36	1.22	6	0.898	6595
C5-6	94	0.66	1.14	6	0.859	6560
C5-6	94	0.95	1.14	6	0.859	7087
C5-6	94	1.31	1.14	6	0.859	7056
C5-6	94	1.61	1.14	6	0.859	6799

C5-6	94	1.90	1.14	6	0.859	6717
C5-6	94	2.20	1.14	6	0.859	7564
C5-6	94	2.53	1.14	6	0.859	7426
C5-6	94	2.85	1.14	6	0.859	7580
C5-6	94	3.15	1.14	6	0.859	7163
C5-6	94	3.48	1.14	6	0.859	8067
C5-6	94	3.77	1.14	6	0.859	7656
C5-6	94	4.10	1.14	6	0.859	7403
C5-6	94	4.40	1.14	6	0.859	7264
C5-6	94	4.72	1.14	6	0.859	7548
C5-6	94	5.05	1.14	6	0.859	7360
C5-6	94	5.38	1.14	6	0.859	7000
C5-6	94	5.68	1.14	6	0.859	4987
C5-6	95	0.13	1.22	4	0.898	6371
C5-6	95	0.46	1.22	4	0.898	6305
C5-6	95	0.75	1.14	4	0.859	6970
C5-6	95	1.08	1.14	4	0.859	7782
C5-6	95	1.41	1.14	4	0.859	7761
C5-6	95	1.71	1.14	4	0.859	7022
C5-6	95	2.00	1.14	4	0.859	7529
C5-6	95	2.33	1.14	4	0.859	7712
C5-6	95	2.66	1.14	4	0.859	7831
C5-6	95	2.99	1.22	4	0.898	7509
C5-6	95	3.28	1.14	4	0.859	7512
C5-6	95	3.58	1.14	4	0.859	7193
C5-6	95	3.94	1.14	4	0.859	8012
C5-6	95	4.23	1.14	4	0.859	7049
C5-6	95	4.53	1.22	4	0.898	7948
C5-6	95	4.79	1.14	4	0.859	7475
C5-6	95	5.02	1.14	4	0.859	7314
C5-6	95	5.28	1.14	4	0.859	7998
C5-6	95	5.61	1.14	4	0.859	7612
C5-6	96	0.33	1.14	2	0.859	7543
C5-6	96	0.62	1.34	2	0.938	7291
C5-6	96	0.95	1.22	2	0.898	7042
C5-6	96	1.28	1.22	2	0.898	6873
C5-6	96	1.57	1.22	2	0.898	6989
C5-6	96	1.90	1.22	2	0.898	7096
C5-6	96	2.20	1.22	2	0.898	6487
C5-6	96	2.53	1.22	2	0.898	7526
C5-6	96	2.85	1.22	2	0.898	7775
C5-6	96	3.15	1.22	2	0.898	7401
C5-6	96	3.44	1.14	2	0.859	8251
C5-6	96	3.81	1.22	2	0.898	7061
C5-6	96	4.10	1.22	2	0.898	8021
C5-6	96	4.43	1.22	2	0.898	8158
C5-6	96	4.76	1.34	2	0.938	8021

C5-6	96	5.22	1.22	2	0.898	7437
C5-6	96	5.51	1.34	2	0.938	7245
C5-6	96	5.84	1.22	2	0.898	8227
C5-6	96	6.10	1.22	2	0.898	6274
C5-6	96	6.40	1.02	2	0.82	6191
B7-8	97	0.13	1.34	6	0.938	6340
B7-8	97	0.43	1.34	6	0.938	7031
B7-8	97	0.79	1.22	6	0.898	7494
B7-8	97	1.08	1.22	6	0.898	6273
B7-8	97	1.41	1.22	6	0.898	6895
B7-8	97	1.71	1.34	6	0.938	6646
B7-8	97	2.03	1.22	6	0.898	7162
B7-8	97	2.33	1.22	6	0.898	6350
B7-8	97	2.66	1.22	6	0.898	6762
B7-8	97	2.99	1.22	6	0.898	7150
B7-8	97	3.28	1.22	6	0.898	7045
B7-8	97	3.61	1.22	6	0.898	7220
B7-8	97	3.87	1.22	6	0.898	6696
B7-8	97	4.17	1.34	6	0.938	7021
B7-8	97	4.49	1.34	6	0.938	6629
B7-8	97	4.79	1.34	6	0.938	6942
B7-8	97	5.09	1.34	6	0.938	7297
B7-8	97	5.38	1.34	6	0.938	8032
B7-8	97	5.68	1.34	6	0.938	7442
B7-8	97	6.00	1.34	6	0.938	7754
B7-8	97	6.33	1.22	6	0.898	7040
B7-8	98	0.16	1.14	4	0.859	6895
B7-8	98	0.46	1.22	4	0.898	6913
B7-8	98	0.75	1.22	4	0.898	7628
B7-8	98	1.05	1.22	4	0.898	7467
B7-8	98	1.38	1.22	4	0.898	6260
B7-8	98	1.67	1.22	4	0.898	6226
B7-8	98	1.97	1.14	4	0.859	6572
B7-8	98	2.26	1.14	4	0.859	5993
B7-8	98	2.62	1.14	4	0.859	7105
B7-8	98	2.92	1.14	4	0.859	6808
B7-8	98	3.28	1.14	4	0.859	7112
B7-8	98	3.58	1.14	4	0.859	7499
B7-8	98	3.94	1.14	4	0.859	7432
B7-8	98	4.27	1.22	4	0.898	7089
B7-8	98	4.56	1.22	4	0.898	7708
B7-8	98	4.89	1.22	4	0.898	7176
B7-8	98	5.22	1.14	4	0.859	8034
B7-8	98	5.51	1.22	4	0.898	7253
B7-8	98	5.84	1.22	4	0.898	6473
B7-8	98	6.27	1.22	4	0.898	7161
B7-8	98	6.59	1.14	4	0.859	6344

B7-8	98	6.89	1.22	4	0.898	6817
B7-8	99	0.00	1.42	2	0.977	6402
B7-8	99	0.36	1.34	2	0.938	6692
B7-8	99	0.66	1.34	2	0.938	7654
B7-8	99	0.95	1.34	2	0.938	7454
B7-8	99	1.31	1.34	2	0.938	7188
B7-8	99	1.57	1.34	2	0.938	7160
B7-8	99	1.87	1.34	2	0.938	7278
B7-8	99	2.20	1.22	2	0.898	6920
B7-8	99	2.53	1.22	2	0.898	6421
B7-8	99	2.72	1.34	2	0.938	6435
B7-8	99	2.85	1.22	2	0.898	7195
B7-8	99	3.15	1.22	2	0.898	7026
B7-8	99	3.44	1.22	2	0.898	6825
B7-8	99	3.77	1.22	2	0.898	7603
B7-8	99	4.10	1.34	2	0.938	7207
B7-8	99	4.40	1.34	2	0.938	7513
B7-8	99	4.69	1.22	2	0.898	6644
B7-8	99	5.02	1.34	2	0.938	5583
B7-8	99	5.31	1.22	2	0.898	5271
B7-8	99	5.68	1.22	2	0.898	6347
B7-8	99	5.97	1.34	2	0.938	7165
B7-8	99	6.27	1.34	2	0.938	7015
B6-7	100	0.13	1.14	6	0.859	7757
B6-7	100	0.49	1.14	6	0.859	7281
B6-7	100	0.79	1.14	6	0.859	7035
B6-7	100	1.08	1.14	6	0.859	6886
B6-7	100	1.41	1.14	6	0.859	6999
B6-7	100	1.74	1.14	6	0.859	6815
B6-7	100	2.03	1.14	6	0.859	6903
B6-7	100	2.36	1.14	6	0.859	4648
B6-7	100	2.66	1.14	6	0.859	6813
B6-7	100	2.95	1.14	6	0.859	7254
B6-7	100	3.25	1.14	6	0.859	7376
B6-7	100	3.58	1.14	6	0.859	6589
B6-7	100	3.90	1.14	6	0.859	6531
B6-7	100	4.20	1.02	6	0.82	6551
B6-7	100	4.53	1.14	6	0.859	6766
B6-7	100	4.82	1.14	6	0.859	6744
B6-7	100	5.15	1.02	6	0.82	6295
B6-7	100	5.41	1.02	6	0.82	7574
B6-7	100	5.74	1.14	6	0.859	7692
B6-7	100	6.07	1.02	6	0.82	7243
B6-7	101	0.33	1.22	4	0.898	7619
B6-7	101	0.62	1.22	4	0.898	7452
B6-7	101	0.92	1.22	4	0.898	7866
B6-7	101	1.25	1.22	4	0.898	7640

B6-7	101	1.57	1.14	4	0.859	7762
B6-7	101	1.87	1.14	4	0.859	7087
B6-7	101	2.20	1.22	4	0.898	8120
B6-7	101	2.53	1.22	4	0.898	7798
B6-7	101	2.82	1.22	4	0.898	7538
B6-7	101	3.12	1.14	4	0.859	7760
B6-7	101	3.44	1.22	4	0.898	7287
B6-7	101	3.77	1.22	4	0.898	6304
B6-7	101	4.10	1.14	4	0.859	7115
B6-7	101	4.36	1.14	4	0.859	6623
B6-7	101	4.69	1.14	4	0.859	7216
B6-7	101	5.02	1.22	4	0.898	7484
B6-7	101	5.35	1.22	4	0.898	7180
B6-7	101	5.68	1.22	4	0.898	6867
B6-7	101	5.97	1.14	4	0.859	7998
B6-7	101	6.30	1.22	4	0.898	6009
B6-7	101	6.59	1.22	4	0.898	6907
B6-7	102	0.23	1.42	2	0.977	6183
B6-7	102	0.56	1.54	2	1.016	6420
B6-7	102	0.89	1.42	2	0.977	6526
B6-7	102	1.18	1.54	2	1.016	6845
B6-7	102	1.48	1.42	2	0.977	7168
B6-7	102	1.80	1.54	2	1.016	6426
B6-7	102	2.13	1.54	2	1.016	6989
B6-7	102	2.43	1.54	2	1.016	7494
B6-7	102	2.79	1.54	2	1.016	7427
B6-7	102	3.05	1.42	2	0.977	7609
B6-7	102	3.35	1.42	2	0.977	6336
B6-7	102	3.58	1.54	2	1.016	7019
B6-7	102	3.84	1.54	2	1.016	7274
B6-7	102	4.17	1.54	2	1.016	7069
B6-7	102	4.49	1.54	2	1.016	6875
B6-7	102	4.79	1.42	2	0.977	6771
B6-7	102	5.12	1.54	2	1.016	6988
B6-7	102	5.41	1.54	2	1.016	7109
B6-7	102	5.74	1.42	2	0.977	6331
B6-7	102	6.04	1.42	2	0.977	6644
B6-7	102	6.40	1.54	2	1.016	6249
B6-7	102	6.69	1.42	2	0.977	6154
B5-6	103	0.16	1.22	6	0.898	5810
B5-6	103	0.39	1.34	6	0.938	6834
B5-6	103	0.85	1.34	6	0.938	6932
B5-6	103	1.15	1.22	6	0.898	6830
B5-6	103	1.44	1.34	6	0.938	6635
B5-6	103	1.71	1.22	6	0.898	6743
B5-6	103	2.10	1.34	6	0.938	6943
B5-6	103	2.59	1.34	6	0.938	6665

B5-6	103	2.89	1.22	6	0.898	6613
B5-6	103	3.22	1.34	6	0.938	6762
B5-6	103	3.51	1.34	6	0.938	5868
B5-6	103	3.81	1.22	6	0.898	5710
B5-6	103	4.13	1.22	6	0.898	5831
B5-6	103	4.40	1.34	6	0.938	6349
B5-6	103	4.63	1.22	6	0.898	6683
B5-6	103	4.95	1.34	6	0.938	4571
B5-6	104	0.13	1.42	4	0.977	4795
B5-6	104	0.36	1.42	4	0.977	6304
B5-6	104	0.69	1.34	4	0.938	7045
B5-6	104	1.02	1.34	4	0.938	6787
B5-6	104	1.31	1.34	4	0.938	7448
B5-6	104	1.64	1.34	4	0.938	7575
B5-6	104	1.94	1.34	4	0.938	6328
B5-6	104	2.23	1.42	4	0.977	6539
B5-6	104	2.56	1.34	4	0.938	6817
B5-6	104	2.85	1.42	4	0.977	7287
B5-6	104	3.15	1.34	4	0.938	7107
B5-6	104	3.44	1.34	4	0.938	6727
B5-6	104	3.77	1.34	4	0.938	6452
B5-6	104	4.07	1.34	4	0.938	7333
B5-6	104	4.40	1.42	4	0.977	7139
B5-6	104	4.72	1.42	4	0.977	7537
B5-6	104	5.02	1.42	4	0.977	6823
B5-6	104	5.35	1.34	4	0.938	6677
B5-6	104	5.64	1.34	4	0.938	6777
B5-6	104	5.97	1.34	4	0.938	6643
B5-6	104	6.27	1.34	4	0.938	6166
B5-6	104	6.59	1.42	4	0.977	7206
B5-6	105	0.10	1.34	2	0.938	4110
B5-6	105	0.36	1.34	2	0.938	6166
B5-6	105	0.75	1.34	2	0.938	7103
B5-6	105	1.05	1.34	2	0.938	7052
B5-6	105	1.38	1.34	2	0.938	6995
B5-6	105	1.64	1.34	2	0.938	7032
B5-6	105	1.90	1.34	2	0.938	6716
B5-6	105	2.20	1.34	2	0.938	6904
B5-6	105	2.56	1.34	2	0.938	6717
B5-6	105	2.82	1.34	2	0.938	6865
B5-6	105	3.12	1.34	2	0.938	7401
B5-6	105	3.41	1.42	2	0.977	7107
B5-6	105	3.74	1.34	2	0.938	6410
B5-6	105	4.07	1.34	2	0.938	5993
B5-6	105	4.36	1.34	2	0.938	6160
B5-6	105	4.69	1.34	2	0.938	6054
B5-6	105	4.99	1.34	2	0.938	5954

B5-6	105	5.31	1.34	2	0.938	6624
B5-6	105	5.64	1.34	2	0.938	6100
B5-6	105	5.94	1.34	2	0.938	6416
B5-6	105	6.27	1.42	2	0.977	5916
A8-9	106	0.07	1.54	2	1.016	5972
A8-9	106	0.39	1.54	2	1.016	5259
A8-9	106	0.72	1.34	2	0.938	6984
A8-9	106	1.02	1.54	2	1.016	6337
A8-9	106	1.31	1.54	2	1.016	6574
A8-9	106	1.67	1.54	2	1.016	6350
A8-9	106	1.97	1.54	2	1.016	6779
A8-9	106	2.30	1.54	2	1.016	6669
A8-9	106	2.59	1.54	2	1.016	5852
A8-9	106	2.92	1.54	2	1.016	6456
A8-9	106	3.25	1.54	2	1.016	5850
A8-9	106	3.51	1.54	2	1.016	6938
A8-9	106	3.81	1.42	2	0.977	6823
A8-9	106	4.07	1.54	2	1.016	7111
A8-9	107	0.20	1.69	4	1.094	6170
A8-9	107	0.49	1.54	4	1.016	7314
A8-9	107	0.79	1.61	4	1.055	7486
A8-9	107	1.08	1.61	4	1.055	6949
A8-9	107	1.48	1.69	4	1.094	7020
A8-9	107	1.77	1.69	4	1.094	7343
A8-9	107	2.10	1.61	4	1.055	7145
A8-9	107	2.40	1.61	4	1.055	7585
A8-9	107	2.69	1.61	4	1.055	7120
A8-9	107	3.02	1.61	4	1.055	7266
A8-9	107	3.31	1.54	4	1.016	8169
A8-9	107	3.64	1.61	4	1.055	7376
A8-9	107	3.90	1.61	4	1.055	7687
A8-9	108	0.30	1.22	6	0.898	7762
A8-9	108	0.59	1.34	6	0.938	7772
A8-9	108	0.89	1.34	6	0.938	7400
A8-9	108	1.21	1.34	6	0.938	8213
A8-9	108	1.51	1.22	6	0.898	7428
A8-9	108	1.84	1.22	6	0.898	7941
A8-9	108	2.13	1.22	6	0.898	6706
A8-9	108	2.46	1.22	6	0.898	7490
A8-9	108	2.79	1.22	6	0.898	7322
A8-9	108	3.08	1.22	6	0.898	6965
A8-9	108	3.38	1.14	6	0.859	7813
A8-9	108	3.71	1.22	6	0.898	6950
A8-9	108	4.04	1.22	6	0.898	7689
A8-9	108	4.33	1.22	6	0.898	7891
A7-8	109	0.20	1.54	6	1.016	7666
A7-8	109	0.46	1.34	6	0.938	6833

A7-8	109	0.75	1.42	6	0.977	6256
A7-8	109	1.08	1.42	6	0.977	7647
A7-8	109	1.41	1.42	6	0.977	7515
A7-8	109	1.71	1.42	6	0.977	7651
A7-8	109	2.13	1.42	6	0.977	8007
A7-8	109	2.46	1.42	6	0.977	7869
A7-8	109	2.72	1.54	6	1.016	7195
A7-8	109	3.15	1.22	6	0.898	6701
A7-8	109	3.51	1.42	6	0.977	7490
A7-8	109	3.84	1.42	6	0.977	7356
A7-8	109	4.17	1.34	6	0.938	6881
A7-8	109	4.40	1.42	6	0.977	6073
A7-8	109	4.86	1.42	6	0.977	6329
A7-8	109	5.38	1.22	6	0.898	5201
A7-8	109	5.64	1.42	6	0.977	5660
A7-8	110	0.16	1.42	4	0.977	3654
A7-8	110	0.46	1.34	4	0.938	5282
A7-8	110	0.72	1.22	4	0.898	6908
A7-8	110	0.89	1.22	4	0.898	6370
A7-8	110	1.21	1.22	4	0.898	5432
A7-8	110	1.54	1.34	4	0.938	7001
A7-8	110	1.84	1.22	4	0.898	7088
A7-8	110	2.07	1.22	4	0.898	7457
A7-8	110	2.26	1.34	4	0.938	7409
A7-8	110	2.56	1.22	4	0.898	6578
A7-8	110	2.82	1.34	4	0.938	6509
A7-8	110	3.12	1.02	4	0.82	5678
A7-8	110	3.44	1.22	4	0.898	6784
A7-8	110	3.71	1.22	4	0.898	6735
A7-8	110	4.04	1.22	4	0.898	6435
A7-8	110	4.27	1.22	4	0.898	6368
A7-8	110	4.49	1.22	4	0.898	6053
A7-8	110	4.79	1.22	4	0.898	5220
A7-8	110	5.12	1.22	4	0.898	5538
A7-8	110	5.41	1.22	4	0.898	4921
A7-8	110	5.74	0.91	4	0.781	4144
A7-8	110	6.00	1.22	4	0.898	3724
A7-8	110	6.33	1.34	4	0.938	3922
A7-8	111	0.33	1.61	2	1.055	6315
A7-8	111	0.69	1.54	2	1.016	5783
A7-8	111	0.98	1.61	2	1.055	6331
A7-8	111	1.31	1.54	2	1.016	5828
A7-8	111	1.64	1.61	2	1.055	6331
A7-8	111	1.94	1.61	2	1.055	5917
A7-8	111	2.26	1.61	2	1.055	5721
A7-8	111	2.56	1.54	2	1.016	5613
A7-8	111	2.85	1.61	2	1.055	6368

A7-8	111	3.18	1.61	2	1.055	7250
A7-8	111	3.51	1.61	2	1.055	7924
A7-8	111	3.84	1.61	2	1.055	7689
A7-8	111	4.13	1.54	2	1.016	7338
A7-8	111	4.46	1.61	2	1.055	7385
A7-8	111	4.76	1.54	2	1.016	6598
A7-8	111	5.09	1.54	2	1.016	7323
A7-8	111	5.41	1.54	2	1.016	6735
A7-8	111	5.71	1.54	2	1.016	6344
A7-8	111	6.04	1.54	2	1.016	7120
A7-8	111	6.36	1.54	2	1.016	7798
A7-8	111	6.69	1.54	2	1.016	7220
A7-8	111	6.99	1.54	2	1.016	7077
A6-7	112	0.16	1.14	6	0.859	7340
A6-7	112	0.46	1.14	6	0.859	7547
A6-7	112	0.75	1.22	6	0.898	6947
A6-7	112	1.05	1.22	6	0.898	7696
A6-7	112	1.38	1.14	6	0.859	7886
A6-7	112	1.67	1.14	6	0.859	6945
A6-7	112	2.00	1.14	6	0.859	7693
A6-7	112	2.30	1.14	6	0.859	7515
A6-7	112	2.62	1.14	6	0.859	6969
A6-7	112	2.92	1.14	6	0.859	6530
A6-7	112	3.28	1.14	6	0.859	6180
A6-7	112	3.58	1.14	6	0.859	4207
A6-7	112	3.87	1.14	6	0.859	6261
A6-7	112	4.13	1.14	6	0.859	5673
A6-7	112	4.43	1.14	6	0.859	5604
A6-7	112	4.82	1.14	6	0.859	6049
A6-7	112	5.12	1.14	6	0.859	5106
A6-7	112	5.38	1.14	6	0.859	6977
A6-7	112	5.64	1.22	6	0.898	6043
A6-7	112	5.87	1.22	6	0.898	5438
A6-7	113	0.30	1.42	4	0.977	5001
A6-7	113	0.59	1.42	4	0.977	5135
A6-7	113	0.89	1.42	4	0.977	6382
A6-7	113	1.21	1.42	4	0.977	6328
A6-7	113	1.54	1.42	4	0.977	6214
A6-7	113	1.84	1.42	4	0.977	5962
A6-7	113	2.10	1.54	4	1.016	7563
A6-7	113	2.46	1.14	4	0.859	4997
A6-7	113	2.76	1.42	4	0.977	6626
A6-7	113	3.05	1.42	4	0.977	6490
A6-7	113	3.38	1.42	4	0.977	6652
A6-7	113	3.71	1.34	4	0.938	6263
A6-7	113	4.00	1.34	4	0.938	6015
A6-7	113	4.36	1.42	4	0.977	7007

A6-7	113	4.66	1.42	4	0.977	7027
A6-7	113	4.99	1.34	4	0.938	6310
A6-7	113	5.28	1.34	4	0.938	7349
A6-7	113	5.61	1.42	4	0.977	7553
A6-7	113	5.91	1.42	4	0.977	7325
A6-7	113	6.27	1.54	4	1.016	6902
A6-7	114	0.16	1.34	2	0.938	6436
A6-7	114	0.49	1.34	2	0.938	5636
A6-7	114	0.82	1.42	2	0.977	7079
A6-7	114	1.15	1.42	2	0.977	7268
A6-7	114	1.44	1.42	2	0.977	6902
A6-7	114	1.77	1.42	2	0.977	7323
A6-7	114	2.07	1.42	2	0.977	7777
A6-7	114	2.40	1.42	2	0.977	7544
A6-7	114	2.72	1.42	2	0.977	7097
A6-7	114	3.05	1.42	2	0.977	7322
A6-7	114	3.35	1.42	2	0.977	7002
A6-7	114	3.67	1.42	2	0.977	7057
A6-7	114	3.97	1.42	2	0.977	7725
A6-7	114	4.30	1.34	2	0.938	7635
A6-7	114	4.59	1.34	2	0.938	7294
A6-7	114	4.95	1.34	2	0.938	7358
A6-7	114	5.25	1.42	2	0.977	7280
A6-7	114	5.51	1.42	2	0.977	7641
A6-7	114	5.84	1.34	2	0.938	7498
A6-7	114	6.20	1.34	2	0.938	8294
A6-7	114	6.50	1.42	2	0.977	7303
A6-7	114	6.79	1.42	2	0.977	6560
A9-10	118	0.13	1.22	6	0.898	8186
A9-10	118	0.43	1.22	6	0.898	8249
A9-10	118	0.69	1.14	6	0.859	6762
A9-10	118	1.02	1.14	6	0.859	7308
A9-10	118	1.35	1.14	6	0.859	7703
A9-10	118	1.64	1.22	6	0.898	7100
A9-10	118	1.97	1.14	6	0.859	6908
A9-10	118	2.26	1.14	6	0.859	6242
A9-10	118	2.59	1.14	6	0.859	7184
A9-10	118	2.92	1.14	6	0.859	7190
A9-10	118	3.22	1.14	6	0.859	7245
A9-10	118	3.54	1.02	6	0.82	8040
A9-10	118	3.87	1.14	6	0.859	8203
A9-10	118	4.17	1.14	6	0.859	7643
A9-10	118	4.49	1.14	6	0.859	8773
A9-10	118	4.82	1.14	6	0.859	8739
A9-10	118	5.18	1.14	6	0.859	8537
A9-10	118	5.45	1.14	6	0.859	8887
A9-10	118	5.77	1.14	6	0.859	8584

A9-10	118	6.07	1.02	6	0.82	8596
A9-10	118	6.40	1.02	6	0.82	8134
A9-10	118	6.69	0.91	6	0.781	7476
A9-10	118	7.02	1.14	6	0.859	7682
A9-10	118	7.32	1.14	6	0.859	6943
A9-10	119	0.03	1.34	4	0.938	6477
A9-10	119	0.36	1.22	4	0.898	7160
A9-10	119	0.66	1.22	4	0.898	7502
A9-10	119	0.98	1.22	4	0.898	7941
A9-10	119	0.98	1.22	4	0.898	7570
A9-10	119	1.31	1.22	4	0.898	7476
A9-10	119	1.64	1.22	4	0.898	8720
A9-10	119	1.94	1.22	4	0.898	8572
A9-10	119	2.23	1.22	4	0.898	8679
A9-10	119	2.59	1.22	4	0.898	8240
A9-10	119	2.92	1.22	4	0.898	7497
A9-10	119	3.22	1.14	4	0.859	7798
A9-10	119	3.51	1.14	4	0.859	7212
A9-10	119	3.84	1.22	4	0.898	7274
A9-10	119	4.13	1.14	4	0.859	7743
A9-10	119	4.46	1.14	4	0.859	5682
A9-10	119	4.72	1.14	4	0.859	7268
A9-10	119	5.05	1.14	4	0.859	4047
A9-10	119	5.35	1.14	4	0.859	7152
A9-10	119	5.68	1.14	4	0.859	7566
A9-10	119	5.97	1.14	4	0.859	7671
A9-10	119	6.30	1.14	4	0.859	8283
A9-10	119	6.63	1.14	4	0.859	8194
A9-10	119	6.92	1.14	4	0.859	7937
A9-10	119	7.22	1.22	4	0.898	6576
A9-10	120	0.03	1.34	2	0.938	7146
A9-10	120	0.36	1.34	2	0.938	8197
A9-10	120	0.66	1.22	2	0.898	8677
A9-10	120	0.98	1.34	2	0.938	8212
A9-10	120	1.31	1.22	2	0.898	8353
A9-10	120	1.64	1.34	2	0.938	7851
A9-10	120	1.94	1.22	2	0.898	8335
A9-10	120	2.23	1.22	2	0.898	8131
A9-10	120	2.56	1.22	2	0.898	6885
A9-10	120	2.85	1.22	2	0.898	6703
A9-10	120	3.15	1.22	2	0.898	7112
A9-10	120	3.44	1.14	2	0.859	7112
A9-10	120	3.77	1.22	2	0.898	8418
A9-10	120	4.10	1.22	2	0.898	7982
A9-10	120	4.43	1.22	2	0.898	8132
A9-10	120	4.72	1.22	2	0.898	8509
A9-10	120	5.05	1.22	2	0.898	8356

A9-10	120	5.35	1.22	2	0.898	8420
A9-10	120	5.68	1.22	2	0.898	8350
A9-10	120	5.71	1.22	2	0.898	8696
A9-10	120	6.00	1.22	2	0.898	8256
A9-10	120	6.33	1.22	2	0.898	7722
A9-10	120	6.63	1.14	2	0.859	8000
A9-10	120	6.96	1.22	2	0.898	7270
A10-11	121	0.13	1.22	6	0.898	7014
A10-11	121	0.39	1.22	6	0.898	8158
A10-11	121	0.69	1.14	6	0.859	7620
A10-11	121	1.02	1.14	6	0.859	7654
A10-11	121	1.31	1.14	6	0.859	7415
A10-11	121	1.64	1.22	6	0.898	7969
A10-11	121	1.97	1.14	6	0.859	7169
A10-11	121	2.30	1.14	6	0.859	7515
A10-11	121	2.62	1.14	6	0.859	6995
A10-11	121	2.92	1.14	6	0.859	7508
A10-11	121	3.22	1.14	6	0.859	7955
A10-11	121	3.54	1.14	6	0.859	7743
A10-11	121	3.87	1.22	6	0.898	8059
A10-11	121	4.17	1.14	6	0.859	7706
A10-11	121	4.46	1.14	6	0.859	7796
A10-11	121	4.79	1.22	6	0.898	7711
A10-11	121	5.15	1.14	6	0.859	7427
A10-11	121	5.45	1.14	6	0.859	6953
A10-11	121	5.77	1.22	6	0.898	6863
A10-11	121	6.10	1.14	6	0.859	7022
A10-11	121	6.40	1.14	6	0.859	7136
A10-11	121	6.73	1.14	6	0.859	7557
A10-11	121	7.05	1.14	6	0.859	7204
A10-11	121	7.41	1.22	6	0.898	6920
A10-11	122	0.13	1.34	4	0.938	6025
A10-11	122	0.43	1.22	4	0.898	7185
A10-11	122	0.72	1.22	4	0.898	7181
A10-11	122	1.05	1.22	4	0.898	8160
A10-11	122	1.35	1.22	4	0.898	8348
A10-11	122	1.67	1.22	4	0.898	7641
A10-11	122	2.00	1.22	4	0.898	7491
A10-11	122	2.30	1.22	4	0.898	7897
A10-11	122	2.62	1.22	4	0.898	7457
A10-11	122	2.95	1.22	4	0.898	8006
A10-11	122	3.25	1.22	4	0.898	7849
A10-11	122	3.58	1.22	4	0.898	7480
A10-11	122	3.90	1.22	4	0.898	8068
A10-11	122	4.20	1.22	4	0.898	7931
A10-11	122	4.20	1.22	4	0.898	7740
A10-11	122	4.49	1.22	4	0.898	7585

A10-11	122	4.86	1.14	4	0.859	7464
A10-11	122	5.12	1.22	4	0.898	6407
A10-11	122	5.41	1.22	4	0.898	6512
A10-11	122	5.74	1.22	4	0.898	7290
A10-11	122	6.00	1.22	4	0.898	6804
A10-11	122	6.33	1.22	4	0.898	6219
A10-11	122	6.63	1.14	4	0.859	5428
A10-11	122	6.89	1.22	4	0.898	6400
A10-11	122	7.22	1.34	4	0.938	5832
A10-11	123	0.10	1.34	2	0.938	6249
A10-11	123	0.43	1.22	2	0.898	6923
A10-11	123	0.72	1.14	2	0.859	7000
A10-11	123	1.05	1.22	2	0.898	7728
A10-11	123	1.38	1.22	2	0.898	7517
A10-11	123	1.67	1.22	2	0.898	7173
A10-11	123	2.00	1.22	2	0.898	7347
A10-11	123	2.30	1.14	2	0.859	7443
A10-11	123	2.62	1.22	2	0.898	7264
A10-11	123	2.95	1.22	2	0.898	7093
A10-11	123	3.25	1.22	2	0.898	7472
A10-11	123	3.58	1.22	2	0.898	7605
A10-11	123	3.90	1.22	2	0.898	7572
A10-11	123	4.20	1.22	2	0.898	7551
A10-11	123	4.53	1.22	2	0.898	7828
A10-11	123	4.86	1.22	2	0.898	7299
A10-11	123	5.18	1.22	2	0.898	6775
A10-11	123	5.48	1.22	2	0.898	6881
A10-11	123	5.77	1.22	2	0.898	7054
A10-11	123	6.10	1.22	2	0.898	6539
A10-11	123	6.40	1.22	2	0.898	7122
A10-11	123	6.73	1.22	2	0.898	7080
A10-11	123	7.05	1.22	2	0.898	7439
A10-11	123	7.38	1.34	2	0.938	6397
B9-10	124	0.20	1.22	6	0.898	7002
B9-10	124	0.49	1.22	6	0.898	6707
B9-10	124	0.82	1.22	6	0.898	6711
B9-10	124	1.12	1.22	6	0.898	7259
B9-10	124	1.48	1.22	6	0.898	7121
B9-10	124	1.77	1.22	6	0.898	7486
B9-10	124	2.10	1.14	6	0.859	6748
B9-10	124	2.43	1.14	6	0.859	7135
B9-10	124	2.72	1.22	6	0.898	6853
B9-10	124	3.08	1.22	6	0.898	7824
B9-10	124	3.35	1.14	6	0.859	6592
B9-10	124	3.61	1.14	6	0.859	6625
B9-10	124	3.94	1.14	6	0.859	7927
B9-10	124	4.23	1.14	6	0.859	7015

B9-10	124	4.56	1.22	6	0.898	6923
B9-10	124	4.89	1.14	6	0.859	7615
B9-10	124	5.22	1.14	6	0.859	6915
B9-10	124	5.51	1.22	6	0.898	7039
B9-10	124	5.84	1.22	6	0.898	6845
B9-10	124	6.17	1.14	6	0.859	6719
B9-10	124	6.46	1.14	6	0.859	7080
B9-10	124	6.79	1.14	6	0.859	6587
B9-10	124	7.12	1.14	6	0.859	7031
B9-10	124	7.45	1.14	6	0.859	7593
B9-10	125	0.23	1.34	4	0.938	7380
B9-10	125	0.52	1.34	4	0.938	7688
B9-10	125	0.85	1.34	4	0.938	7809
B9-10	125	1.15	1.34	4	0.938	7528
B9-10	125	1.48	1.34	4	0.938	7682
B9-10	125	1.80	1.34	4	0.938	7811
B9-10	125	2.13	1.22	4	0.898	7607
B9-10	125	2.43	1.34	4	0.938	7664
B9-10	125	2.76	1.22	4	0.898	7112
B9-10	125	3.05	1.22	4	0.898	7217
B9-10	125	3.38	1.22	4	0.898	7713
B9-10	125	3.71	1.22	4	0.898	7699
B9-10	125	4.00	1.22	4	0.898	7361
B9-10	125	4.30	1.34	4	0.938	8091
B9-10	125	4.59	1.34	4	0.938	7247
B9-10	125	4.92	1.34	4	0.938	8043
B9-10	125	5.25	1.34	4	0.938	7342
B9-10	125	5.54	1.34	4	0.938	7627
B9-10	125	5.87	1.34	4	0.938	7609
B9-10	125	6.20	1.34	4	0.938	7272
B9-10	125	6.50	1.34	4	0.938	6391
B9-10	125	6.79	1.22	4	0.898	7458
B9-10	125	7.12	1.34	4	0.938	7609
B9-10	125	7.45	1.22	4	0.898	7330
B9-10	126	0.16	1.34	2	0.938	6702
B9-10	126	0.49	1.34	2	0.938	6693
B9-10	126	0.79	1.22	2	0.898	6317
B9-10	126	1.12	1.22	2	0.898	6187
B9-10	126	1.44	1.22	2	0.898	6690
B9-10	126	1.74	1.22	2	0.898	6422
B9-10	126	2.07	1.22	2	0.898	6522
B9-10	126	2.40	1.22	2	0.898	6409
B9-10	126	2.72	1.22	2	0.898	6140
B9-10	126	3.02	1.22	2	0.898	6544
B9-10	126	3.35	1.22	2	0.898	6721
B9-10	126	3.67	1.22	2	0.898	6633
B9-10	126	4.00	1.22	2	0.898	6195

B9-10	126	4.30	1.22	2	0.898	6692
B9-10	126	4.59	1.34	2	0.938	6712
B9-10	126	4.92	1.22	2	0.898	6322
B9-10	126	5.25	1.34	2	0.938	7038
B9-10	126	5.54	1.34	2	0.938	7277
B9-10	126	5.87	1.34	2	0.938	7193
B9-10	126	6.20	1.34	2	0.938	7286
B9-10	126	6.50	1.22	2	0.898	7399
B9-10	126	6.82	1.22	2	0.898	7372
B9-10	126	7.12	1.34	2	0.938	7308
B10-11	127	0.20	1.22	2	0.898	6890
B10-11	127	0.49	1.34	2	0.938	5440
B10-11	127	0.79	1.14	2	0.859	5745
B10-11	127	1.12	1.22	2	0.898	6188
B10-11	127	1.44	1.22	2	0.898	5757
B10-11	127	1.74	1.22	2	0.898	6363
B10-11	127	2.07	1.22	2	0.898	7598
B10-11	127	2.36	1.22	2	0.898	6124
B10-11	127	2.69	1.22	2	0.898	5888
B10-11	127	3.02	1.22	2	0.898	7021
B10-11	127	3.02	1.22	2	0.898	7141
B10-11	127	3.35	1.22	2	0.898	6088
B10-11	127	3.97	0.67	2	0.703	1351
B10-11	127	4.30	1.22	2	0.898	6552
B10-11	127	4.63	1.22	2	0.898	7060
B10-11	127	4.99	1.22	2	0.898	6963
B10-11	127	5.54	0.67	2	0.703	1370
B10-11	127	5.87	0.67	2	0.703	1298
B10-11	127	6.20	1.22	2	0.898	7362
B10-11	127	6.76	1.22	2	0.898	6820
B10-11	128	0.16	1.22	4	0.898	6249
B10-11	128	0.46	1.22	4	0.898	5999
B10-11	128	0.75	1.14	4	0.859	6528
B10-11	128	1.08	1.22	4	0.898	6034
B10-11	128	1.38	1.22	4	0.898	6056
B10-11	128	1.74	1.22	4	0.898	6165
B10-11	128	2.07	1.22	4	0.898	6291
B10-11	128	2.36	1.22	4	0.898	6503
B10-11	128	2.72	0.67	4	0.703	1261
B10-11	128	3.02	0.67	4	0.703	1314
B10-11	128	3.31	0.67	4	0.703	1266
B10-11	128	3.61	0.67	4	0.703	1348
B10-11	128	3.97	0.47	4	0.664	1353
B10-11	128	4.27	1.14	4	0.859	7009
B10-11	128	4.56	1.14	4	0.859	7059
B10-11	128	4.89	1.14	4	0.859	5925
B10-11	128	5.15	1.22	4	0.898	5583

B10-11	128	5.48	1.22	4	0.898	5412
B10-11	128	5.77	1.22	4	0.898	6474
B10-11	128	6.10	1.14	4	0.859	6031
B10-11	128	6.43	1.22	4	0.898	7201
B10-11	128	6.73	0.67	4	0.703	1342
B10-11	128	7.05	1.34	4	0.938	6869
B10-11	128	7.41	1.22	4	0.898	6859
B10-11	129	0.23	1.14	6	0.859	6447
B10-11	129	0.49	1.34	6	0.938	6258
B10-11	129	0.85	1.14	6	0.859	6232
B10-11	129	1.15	1.22	6	0.898	6734
B10-11	129	1.48	1.22	6	0.898	6801
B10-11	129	1.77	1.34	6	0.938	7298
B10-11	129	2.13	1.34	6	0.938	7009
B10-11	129	2.40	1.22	6	0.898	6996
B10-11	129	2.76	1.22	6	0.898	6294
B10-11	129	3.05	1.22	6	0.898	7659
B10-11	129	3.35	1.22	6	0.898	6393
B10-11	129	3.67	1.22	6	0.898	7338
B10-11	129	4.00	1.02	6	0.82	4671
B10-11	129	4.33	1.22	6	0.898	6531
B10-11	129	4.63	1.22	6	0.898	7907
B10-11	129	4.95	1.22	6	0.898	6445
B10-11	129	5.28	1.22	6	0.898	7068
B10-11	129	5.61	1.22	6	0.898	7006
B10-11	129	5.91	1.22	6	0.898	6933
B10-11	129	6.23	1.22	6	0.898	7019
B10-11	129	6.53	1.22	6	0.898	7055
B10-11	129	6.86	1.22	6	0.898	7126
B10-11	129	7.15	1.34	6	0.938	7214
B10-11	129	7.48	1.22	6	0.898	7733
C10-11	130	0.49	1.22	6	0.898	5899
C10-11	130	0.79	1.22	6	0.898	5698
C10-11	130	1.05	1.22	6	0.898	6564
C10-11	130	1.38	1.22	6	0.898	6310
C10-11	130	1.67	1.22	6	0.898	6955
C10-11	130	1.97	1.22	6	0.898	6604
C10-11	130	2.26	1.22	6	0.898	7042
C10-11	130	2.59	1.22	6	0.898	6719
C10-11	130	2.89	1.22	6	0.898	6281
C10-11	130	3.22	1.14	6	0.859	5357
C10-11	130	3.51	1.22	6	0.898	5241
C10-11	130	3.84	1.14	6	0.859	7219
C10-11	130	4.17	1.22	6	0.898	6952
C10-11	130	4.46	1.22	6	0.898	6786
C10-11	130	4.79	1.22	6	0.898	7072
C10-11	130	5.12	1.22	6	0.898	7474

C10-11	130	5.41	1.22	6	0.898	7234
C10-11	130	5.71	1.22	6	0.898	6273
C10-11	130	6.00	1.22	6	0.898	5728
C10-11	130	6.33	1.22	6	0.898	6026
C10-11	130	6.76	1.22	6	0.898	5587
C10-11	130	7.09	1.34	6	0.938	4520
C10-11	131	#VALUE!	0.00			
C10-11	132	0.26	1.54	2	1.016	5947
C10-11	132	0.56	1.54	2	1.016	5956
C10-11	132	0.89	1.61	2	1.055	6543
C10-11	132	1.15	1.54	2	1.016	7003
C10-11	132	1.51	1.61	2	1.055	6867
C10-11	132	1.80	1.54	2	1.016	7514
C10-11	132	2.10	1.54	2	1.016	6784
C10-11	132	2.46	1.54	2	1.016	7221
C10-11	132	2.76	1.61	2	1.055	7114
C10-11	132	3.05	1.54	2	1.016	7539
C10-11	132	3.35	1.61	2	1.055	7061
C10-11	132	3.67	1.61	2	1.055	7914
C10-11	132	4.04	1.61	2	1.055	7339
C10-11	132	4.33	1.61	2	1.055	6955
C10-11	132	4.63	1.61	2	1.055	7139
C10-11	132	4.95	1.61	2	1.055	7558
C10-11	132	5.28	1.61	2	1.055	7068
C10-11	132	5.61	1.61	2	1.055	6010
C10-11	132	5.91	1.54	2	1.016	6993
C10-11	132	6.23	1.54	2	1.016	6395
C10-11	132	6.53	1.54	2	1.016	5874
C10-11	132	6.86	1.61	2	1.055	6543
C9-10	133	0.23	1.61	6	1.055	6488
C9-10	133	0.56	1.54	6	1.016	6947
C9-10	133	0.79	1.54	6	1.016	7388
C9-10	133	1.08	1.54	6	1.016	6626
C9-10	133	1.41	1.54	6	1.016	6367
C9-10	133	1.74	1.54	6	1.016	6421
C9-10	133	2.03	1.54	6	1.016	6277
C9-10	133	2.33	1.54	6	1.016	7566
C9-10	133	2.66	1.54	6	1.016	6880
C9-10	133	2.99	1.42	6	0.977	6581
C9-10	133	3.28	1.54	6	1.016	7248
C9-10	133	3.61	1.54	6	1.016	7094
C9-10	133	3.94	1.54	6	1.016	7456
C9-10	133	4.23	1.54	6	1.016	7085
C9-10	133	4.56	1.54	6	1.016	7743
C9-10	133	4.86	1.54	6	1.016	7310
C9-10	133	5.18	1.54	6	1.016	7471
C9-10	133	5.51	1.54	6	1.016	8218

C9-10	133	5.81	1.54	6	1.016	6750
C9-10	133	6.14	1.54	6	1.016	6991
C9-10	133	6.43	1.42	6	0.977	6305
C9-10	133	6.73	1.61	6	1.055	5521
C9-10	134	0.10	1.54	4	1.016	6054
C9-10	134	0.89	1.54	4	1.016	6390
C9-10	134	1.18	1.61	4	1.055	7064
C9-10	134	1.48	1.61	4	1.055	7322
C9-10	134	1.74	1.61	4	1.055	6863
C9-10	134	1.97	1.61	4	1.055	6374
C9-10	134	2.23	1.61	4	1.055	6938
C9-10	134	2.72	1.61	4	1.055	6227
C9-10	134	3.02	1.61	4	1.055	7046
C9-10	134	3.35	1.61	4	1.055	7630
C9-10	134	3.64	1.61	4	1.055	7010
C9-10	134	3.97	1.61	4	1.055	8239
C9-10	134	4.23	1.61	4	1.055	8303
C9-10	134	4.49	1.61	4	1.055	7726
C9-10	134	4.79	1.61	4	1.055	7505
C9-10	134	5.12	1.69	4	1.094	7378
C9-10	135	0.07	1.34	2	0.938	4874
C9-10	135	0.39	1.34	2	0.938	6581
C9-10	135	0.69	1.22	2	0.898	6739
C9-10	135	1.02	1.22	2	0.898	6160
C9-10	135	1.31	1.34	2	0.938	6102
C9-10	135	1.84	1.34	2	0.938	7071
C9-10	135	2.17	1.34	2	0.938	6421
C9-10	135	2.49	1.34	2	0.938	7261
C9-10	135	2.82	1.22	2	0.898	7237
C9-10	135	3.12	1.34	2	0.938	7457
C9-10	135	3.41	1.34	2	0.938	7131
C9-10	135	3.74	1.34	2	0.938	7157
C9-10	135	4.07	1.34	2	0.938	7190
C9-10	135	4.36	1.34	2	0.938	7442
C9-10	135	4.66	1.34	2	0.938	7037
C9-10	135	4.99	1.34	2	0.938	6598
C9-10	135	5.31	1.34	2	0.938	7451
C9-10	135	5.64	1.34	2	0.938	7780
C9-10	135	5.94	1.34	2	0.938	7406
C9-10	135	6.27	1.34	2	0.938	7041
C9-10	135	6.59	1.22	2	0.898	6830
C9-10	135	6.89	1.34	2	0.938	5772
C9-10	135	7.22	1.42	2	0.977	5153
C8-9	136	0.10	1.22	2	0.898	6916
C8-9	136	0.39	1.14	2	0.859	6550
C8-9	136	0.43	1.14	2	0.859	6397
C8-9	136	0.72	1.14	2	0.859	6503

C8-9	136	1.02	1.02	2	0.82	6358
C8-9	136	1.28	1.14	2	0.859	5513
C8-9	136	1.54	1.22	2	0.898	4339
C8-9	137	0.26	1.14	4	0.859	6843
C8-9	137	0.52	1.14	4	0.859	7421
C8-9	137	0.85	1.22	4	0.898	6284
C8-9	138	0.07	1.22	6	0.898	7175
C8-9	138	0.36	1.14	6	0.859	5975
C8-9	138	0.66	1.14	6	0.859	6478
C8-9	138	0.95	1.14	6	0.859	5750
C8-9	138	1.21	1.22	6	0.898	5908
A22-23	140	0.07	1.42	6	0.977	9380
A22-23	140	0.33	1.42	6	0.977	10537
A22-23	140	0.62	1.22	6	0.898	10606
A22-23	140	0.92	1.34	6	0.938	11886
A22-23	140	1.21	1.42	6	0.977	12021
A22-23	140	1.51	1.42	6	0.977	11472
A22-23	140	1.54	1.42	6	0.977	12112
A22-23	140	1.84	1.42	6	0.977	11545
A22-23	140	2.10	1.42	6	0.977	12032
A22-23	140	2.26	1.42	6	0.977	11167
A22-23	140	2.53	1.42	6	0.977	12608
A22-23	140	2.85	1.42	6	0.977	11076
A22-23	140	3.15	1.42	6	0.977	11986
A22-23	140	3.48	1.34	6	0.938	12360
A22-23	140	3.81	1.42	6	0.977	12087
A22-23	140	4.00	1.42	6	0.977	10685
A22-23	140	4.27	1.42	6	0.977	11095
A22-23	140	4.30	1.42	6	0.977	10740
A22-23	140	4.59	1.42	6	0.977	11231
A22-23	140	4.89	1.42	6	0.977	11346
A22-23	140	5.22	1.42	6	0.977	9993
A22-23	140	5.48	1.42	6	0.977	11041
A22-23	140	5.77	1.34	6	0.938	10801
A22-23	140	6.10	1.34	6	0.938	9638
A22-23	140	6.36	1.34	6	0.938	11531
A22-23	140	6.66	1.34	6	0.938	10327
A22-23	141	0.49	1.14	4	0.859	12267
A22-23	141	0.79	1.14	4	0.859	13927
A22-23	141	1.12	1.14	4	0.859	13622
A22-23	141	1.44	1.14	4	0.859	14260
A22-23	141	1.77	1.14	4	0.859	13871
A22-23	141	2.13	1.14	4	0.859	14852
A22-23	141	2.43	1.14	4	0.859	13221
A22-23	141	2.79	1.14	4	0.859	14039
A22-23	141	3.12	1.14	4	0.859	12981
A22-23	141	3.44	1.14	4	0.859	12519

A22-23	141	3.74	1.14	4	0.859	12892
A22-23	141	4.07	1.14	4	0.859	11846
A22-23	141	4.40	1.14	4	0.859	12514
A22-23	141	4.69	1.14	4	0.859	11487
A22-23	142	0.33	1.54	2	1.016	11838
A22-23	142	0.66	1.42	2	0.977	9105
A22-23	142	0.95	1.54	2	1.016	9881
A22-23	142	1.28	1.42	2	0.977	11321
A22-23	142	1.31	1.42	2	0.977	11852
A22-23	142	1.64	1.54	2	1.016	13035
A22-23	142	1.97	1.54	2	1.016	12661
A22-23	142	2.30	1.54	2	1.016	12320
A22-23	142	2.62	1.61	2	1.055	14128
A22-23	142	3.18	1.54	2	1.016	12064
A22-23	142	3.48	1.42	2	0.977	11515
A22-23	142	3.84	1.54	2	1.016	10538
A22-23	142	4.13	1.54	2	1.016	11020
A22-23	142	4.43	1.54	2	1.016	10127
A22-23	142	4.76	1.54	2	1.016	9777
A22-23	142	5.09	1.54	2	1.016	11241
A22-23	142	5.38	1.54	2	1.016	10581
A22-23	142	5.68	1.54	2	1.016	6698
A22-23	142	5.97	1.54	2	1.016	8125
A22-23	142	6.30	1.54	2	1.016	8758
A23-24	143	0.26	1.34	6	0.938	10529
A23-24	143	0.59	1.34	6	0.938	10847
A23-24	143	0.89	1.34	6	0.938	12340
A23-24	143	1.38	1.34	6	0.938	11752
A23-24	143	1.71	1.34	6	0.938	11339
A23-24	143	2.03	1.42	6	0.977	12211
A23-24	143	2.30	1.34	6	0.938	11196
A23-24	143	2.62	1.34	6	0.938	10479
A23-24	143	2.95	1.34	6	0.938	9765
A23-24	143	3.28	1.34	6	0.938	9740
A23-24	143	3.61	1.34	6	0.938	10310
A23-24	143	3.90	1.34	6	0.938	9703
A23-24	143	4.23	1.34	6	0.938	10960
A23-24	143	4.56	1.34	6	0.938	11822
A23-24	143	4.86	1.42	6	0.977	11308
A23-24	143	5.18	1.34	6	0.938	11403
A23-24	143	5.48	1.34	6	0.938	12300
A23-24	143	5.81	1.34	6	0.938	11098
A23-24	143	6.14	1.34	6	0.938	10367
A23-24	143	6.46	1.34	6	0.938	11051
A23-24	143	6.79	1.42	6	0.977	12386
A23-24	144	0.13	1.34	4	0.938	12219
A23-24	144	0.72	1.34	4	0.938	9000

A23-24	144	1.05	1.14	4	0.859	8684
A23-24	144	1.35	1.22	4	0.898	9249
A23-24	144	1.67	1.22	4	0.898	9903
A23-24	144	1.97	1.22	4	0.898	9981
A23-24	144	2.00	1.22	4	0.898	9780
A23-24	144	2.30	1.22	4	0.898	8485
A23-24	144	2.62	1.22	4	0.898	9510
A23-24	144	2.92	1.22	4	0.898	10750
A23-24	144	3.22	1.22	4	0.898	10994
A23-24	144	3.25	1.22	4	0.898	10961
A23-24	144	3.51	1.22	4	0.898	11205
A23-24	144	3.77	1.22	4	0.898	11845
A23-24	144	4.00	1.22	4	0.898	11603
A23-24	144	4.33	1.34	4	0.938	12154
A23-24	144	4.66	1.22	4	0.898	12165
A23-24	144	4.95	1.22	4	0.898	12535
A23-24	144	5.28	1.22	4	0.898	12447
A23-24	144	5.61	1.22	4	0.898	11280
A23-24	144	5.94	1.34	4	0.938	12256
A23-24	144	6.27	1.22	4	0.898	11635
A23-24	144	6.56	1.22	4	0.898	11259
A23-24	144	6.89	1.22	4	0.898	12150
A23-24	144	7.22	1.34	4	0.938	11812
A23-24	144	7.58	1.34	4	0.938	10502
A23-24	145	0.30	1.34	2	0.938	11410
A23-24	145	0.56	1.22	2	0.898	11471
A23-24	145	0.85	1.22	2	0.898	11556
A23-24	145	1.18	1.22	2	0.898	11880
A23-24	145	1.51	1.22	2	0.898	11618
A23-24	145	1.84	1.22	2	0.898	11395
A23-24	145	2.13	1.22	2	0.898	11200
A23-24	145	2.40	1.14	2	0.859	10911
A23-24	145	2.72	1.22	2	0.898	11666
A23-24	145	3.05	1.22	2	0.898	11010
A23-24	145	3.38	1.14	2	0.859	10889
A23-24	145	3.67	1.22	2	0.898	11293
A23-24	145	3.94	1.22	2	0.898	10710
A23-24	145	4.07	1.22	2	0.898	11186
A23-24	145	4.30	1.22	2	0.898	10869
A23-24	145	4.49	1.34	2	0.938	10805
A23-24	145	4.66	1.22	2	0.898	10157
A23-24	145	5.09	1.22	2	0.898	7233
A23-24	145	5.38	1.22	2	0.898	7365
A23-24	145	5.71	1.22	2	0.898	8196
A23-24	145	6.00	1.22	2	0.898	8677
A23-24	145	6.36	1.22	2	0.898	10996
A24-25	146	0.03	1.22	6	0.898	11501

A24-25	146	0.30	1.22	6	0.898	7641
A24-25	146	0.62	1.22	6	0.898	11446
A24-25	146	0.95	1.14	6	0.859	9221
A24-25	146	1.28	1.22	6	0.898	10948
A24-25	146	1.61	1.22	6	0.898	12139
A24-25	146	1.94	1.22	6	0.898	11000
A24-25	146	2.26	1.22	6	0.898	11527
A24-25	146	2.62	1.22	6	0.898	12375
A24-25	146	2.92	1.14	6	0.859	11515
A24-25	146	3.25	1.22	6	0.898	11526
A24-25	146	3.58	1.14	6	0.859	11703
A24-25	146	3.90	1.14	6	0.859	11262
A24-25	146	4.23	1.02	6	0.82	10821
A24-25	146	4.53	1.14	6	0.859	10587
A24-25	146	4.86	1.14	6	0.859	10825
A24-25	146	5.18	1.22	6	0.898	11823
A24-25	146	5.51	1.14	6	0.859	11780
A24-25	146	5.84	1.14	6	0.859	11130
A24-25	146	6.17	1.22	6	0.898	9981
A24-25	146	6.46	1.22	6	0.898	12309
A24-25	146	6.76	1.14	6	0.859	11999
A24-25	146	7.09	1.14	6	0.859	12592
A24-25	146	7.12	1.14	6	0.859	12346
A24-25	146	7.45	1.22	6	0.898	11705
A24-25	147	0.16	1.42	4	0.977	6622
A24-25	147	0.46	1.34	4	0.938	11292
A24-25	147	0.82	1.22	4	0.898	11093
A24-25	147	1.15	1.22	4	0.898	11841
A24-25	147	1.48	1.22	4	0.898	11633
A24-25	147	1.77	1.22	4	0.898	12064
A24-25	147	2.07	1.22	4	0.898	11443
A24-25	147	2.40	1.22	4	0.898	11797
A24-25	147	2.72	1.22	4	0.898	11789
A24-25	147	3.05	1.22	4	0.898	12395
A24-25	147	3.38	1.22	4	0.898	11736
A24-25	147	3.71	1.22	4	0.898	11411
A24-25	147	4.04	1.14	4	0.859	10945
A24-25	147	4.36	1.14	4	0.859	10081
A24-25	147	4.66	1.22	4	0.898	10180
A24-25	147	4.99	1.14	4	0.859	10716
A24-25	147	5.35	1.14	4	0.859	10664
A24-25	147	5.64	1.14	4	0.859	9937
A24-25	147	5.97	1.22	4	0.898	11222
A24-25	147	6.30	1.14	4	0.859	10649
A24-25	147	6.63	1.14	4	0.859	10051
A24-25	147	6.92	1.14	4	0.859	9668
A24-25	147	7.25	1.22	4	0.898	10051

A24-25	148	0.16	1.34	2	0.938	6396
A24-25	148	0.49	1.42	2	0.977	10739
A24-25	148	0.85	1.34	2	0.938	11486
A24-25	148	1.15	1.34	2	0.938	10743
A24-25	148	1.48	1.34	2	0.938	8675
A24-25	148	1.77	1.42	2	0.977	10152
A24-25	148	2.00	1.34	2	0.938	10061
A24-25	148	2.33	1.34	2	0.938	11042
A24-25	148	2.66	1.34	2	0.938	10696
A24-25	148	2.95	1.34	2	0.938	9064
A24-25	148	3.28	1.34	2	0.938	10846
A24-25	148	3.54	1.34	2	0.938	10945
A24-25	148	3.90	1.22	2	0.898	11114
A24-25	148	4.20	1.34	2	0.938	8684
A24-25	148	4.49	1.34	2	0.938	9692
A24-25	148	4.76	1.34	2	0.938	9836
A24-25	148	5.05	1.34	2	0.938	9916
A24-25	148	5.31	1.22	2	0.898	9713
A24-25	148	5.64	1.34	2	0.938	9857
A24-25	148	5.97	1.22	2	0.898	9824
A24-25	148	6.30	1.22	2	0.898	10001
A24-25	148	6.63	1.22	2	0.898	10857
A25-26	149	0.30	1.14	2	0.859	10035
A25-26	149	0.62	1.14	2	0.859	9773
A25-26	149	0.95	1.14	2	0.859	10442
A25-26	149	1.28	1.14	2	0.859	11004
A25-26	149	1.61	1.14	2	0.859	10667
A25-26	149	1.61	1.14	2	0.859	11018
A25-26	149	1.90	1.14	2	0.859	11239
A25-26	149	2.23	1.14	2	0.859	11564
A25-26	149	2.56	1.14	2	0.859	9092
A25-26	149	2.89	1.02	2	0.82	11572
A25-26	149	3.18	1.22	2	0.898	11965
A25-26	149	3.51	1.22	2	0.898	11493
A25-26	149	3.87	1.22	2	0.898	11557
A25-26	149	4.20	1.22	2	0.898	11614
A25-26	149	4.49	1.22	2	0.898	11017
A25-26	149	4.86	1.22	2	0.898	11795
A25-26	149	5.18	1.14	2	0.859	11742
A25-26	149	5.48	1.14	2	0.859	11641
A25-26	149	5.77	1.14	2	0.859	11127
A25-26	149	6.10	1.14	2	0.859	11709
A25-26	149	6.43	1.14	2	0.859	11376
A25-26	150	0.30	1.22	4	0.898	12438
A25-26	150	0.62	1.22	4	0.898	12452
A25-26	150	0.95	1.22	4	0.898	12013
A25-26	150	1.25	1.22	4	0.898	12201

A25-26	150	1.57	1.22	4	0.898	11147
A25-26	150	1.90	1.22	4	0.898	12769
A25-26	150	2.23	1.22	4	0.898	10931
A25-26	150	2.53	1.34	4	0.938	11635
A25-26	150	2.85	1.22	4	0.898	11406
A25-26	150	3.38	1.22	4	0.898	10726
A25-26	150	3.67	1.22	4	0.898	10386
A25-26	150	4.00	1.22	4	0.898	10177
A25-26	150	4.30	1.22	4	0.898	9820
A25-26	150	4.63	1.22	4	0.898	10469
A25-26	150	4.63	1.22	4	0.898	10259
A25-26	150	4.92	1.22	4	0.898	9529
A25-26	150	5.25	1.22	4	0.898	9963
A25-26	150	5.61	1.34	4	0.938	9617
A25-26	151	0.20	1.14	2	0.859	11502
A25-26	151	0.52	1.22	6	0.898	11620
A25-26	151	0.85	1.22	6	0.898	11138
A25-26	151	1.18	1.22	6	0.898	11617
A25-26	151	1.51	1.14	6	0.859	10710
A25-26	151	1.84	1.22	6	0.898	12112
A25-26	151	2.17	1.22	6	0.898	11980
A25-26	151	2.49	1.14	6	0.859	11226
A25-26	151	2.82	1.14	6	0.859	11049
A25-26	151	3.12	1.14	6	0.859	11858
A25-26	151	3.48	1.22	6	0.898	12222
A25-26	151	3.81	1.22	6	0.898	12070
A25-26	151	4.13	1.22	6	0.898	12301
A25-26	151	4.43	1.22	6	0.898	9687
A25-26	151	4.76	1.22	6	0.898	10289
A25-26	151	5.12	1.22	6	0.898	11993
A25-26	151	5.41	1.14	6	0.859	9848
A25-26	151	5.74	1.02	6	0.82	9502
A25-26	151	6.07	1.22	6	0.898	11376
A25-26	151	6.43	1.22	6	0.898	11011
B25-26	152	0.33	1.22	2	0.898	11758
B25-26	152	0.66	1.22	2	0.898	10469
B25-26	152	0.98	1.22	2	0.898	11110
B25-26	152	1.31	1.22	2	0.898	12035
B25-26	152	1.64	1.22	2	0.898	12474
B25-26	152	1.97	1.22	2	0.898	12999
B25-26	152	2.30	1.22	2	0.898	12815
B25-26	152	2.59	1.22	2	0.898	12599
B25-26	152	2.85	1.22	2	0.898	13161
B25-26	152	3.12	1.22	2	0.898	13469
B25-26	152	3.54	1.22	2	0.898	12735
B25-26	152	3.90	1.14	2	0.859	11660
B25-26	152	4.17	1.22	2	0.898	12280

B25-26	152	4.43	1.22	2	0.898	11975
B25-26	152	4.69	1.22	2	0.898	12928
B25-26	152	5.05	1.22	2	0.898	11980
B25-26	152	5.35	1.22	2	0.898	11595
B25-26	152	5.64	1.22	2	0.898	11756
B25-26	152	5.91	1.22	2	0.898	11634
B25-26	152	6.17	1.14	2	0.859	11472
B25-26	153	0.10	1.22	4	0.898	12104
B25-26	153	0.36	1.22	4	0.898	9638
B25-26	153	0.69	1.22	4	0.898	12098
B25-26	153	0.98	1.22	4	0.898	12127
B25-26	153	1.31	1.22	4	0.898	12762
B25-26	153	1.57	1.22	4	0.898	12486
B25-26	153	1.80	1.22	4	0.898	12895
B25-26	153	2.10	1.22	4	0.898	12376
B25-26	153	2.43	1.22	4	0.898	12379
B25-26	153	2.43	1.22	4	0.898	12527
B25-26	153	2.76	1.22	4	0.898	11409
B25-26	153	3.08	1.22	4	0.898	11587
B25-26	153	3.41	1.22	4	0.898	12215
B25-26	153	3.71	1.22	4	0.898	11267
B25-26	153	4.04	1.14	4	0.859	11151
B25-26	153	4.36	1.22	4	0.898	12462
B25-26	153	4.69	1.22	4	0.898	11376
B25-26	153	5.02	1.14	4	0.859	11307
B25-26	153	5.35	1.22	4	0.898	12251
B25-26	153	5.68	1.22	4	0.898	11934
B25-26	153	6.07	1.22	4	0.898	12624
B25-26	154	0.07	1.22	6	0.898	11883
B25-26	154	0.33	1.22	6	0.898	12350
B25-26	154	0.62	1.22	6	0.898	11507
B25-26	154	0.89	1.22	6	0.898	12260
B25-26	154	1.12	1.22	6	0.898	12130
B25-26	154	1.28	1.22	6	0.898	12565
B25-26	154	1.57	1.22	6	0.898	12602
B25-26	154	1.90	1.22	6	0.898	11306
B25-26	154	2.20	1.22	6	0.898	12354
B25-26	154	2.56	1.22	6	0.898	13125
B25-26	154	2.89	1.22	6	0.898	12125
B25-26	154	3.22	1.22	6	0.898	12564
B25-26	154	3.51	1.22	6	0.898	12201
B25-26	154	3.87	1.22	6	0.898	12511
B25-26	154	4.17	1.22	6	0.898	12397
B25-26	154	4.49	1.22	6	0.898	12108
B25-26	154	4.82	1.22	6	0.898	11571
B25-26	154	5.15	1.22	6	0.898	11736
B25-26	154	5.48	1.14	6	0.859	12570

B25-26	154	5.81	1.22	6	0.898	12124
B25-26	154	6.14	1.14	6	0.859	12426
B24-25	155	0.13	1.34	6	0.938	10336
B24-25	155	0.46	1.34	6	0.938	9132
B24-25	155	0.82	1.34	6	0.938	10841
B24-25	155	1.15	1.34	6	0.938	10818
B24-25	155	1.48	1.34	6	0.938	10589
B24-25	155	1.77	1.42	6	0.977	10056
B24-25	155	2.10	1.42	6	0.977	9721
B24-25	155	2.43	1.42	6	0.977	9860
B24-25	155	2.76	1.42	6	0.977	10797
B24-25	155	3.08	1.42	6	0.977	10087
B24-25	155	3.41	1.42	6	0.977	10308
B24-25	155	3.74	1.42	6	0.977	11668
B24-25	155	4.07	1.42	6	0.977	12482
B24-25	155	4.40	1.42	6	0.977	12356
B24-25	155	4.72	1.54	6	1.016	12151
B24-25	155	5.05	1.54	6	1.016	12478
B24-25	155	5.38	1.54	6	1.016	12209
B24-25	155	5.71	1.54	6	1.016	12478
B24-25	155	6.07	1.54	6	1.016	11554
B24-25	155	6.36	1.42	6	0.977	12183
B24-25	155	6.69	1.42	6	0.977	12124
B24-25	155	7.02	1.34	6	0.938	12843
B24-25	155	7.35	1.42	6	0.977	12452
B24-25	155	7.68	1.42	6	0.977	12464
B24-25	156	0.26	1.34	4	0.938	12282
B24-25	156	0.56	1.34	4	0.938	11662
B24-25	156	0.89	1.22	4	0.898	11829
B24-25	156	1.21	1.22	4	0.898	11783
B24-25	156	1.54	1.22	4	0.898	10588
B24-25	156	1.87	1.34	4	0.938	12726
B24-25	156	2.20	1.34	4	0.938	13169
B24-25	156	2.56	1.34	4	0.938	12999
B24-25	156	2.85	1.34	4	0.938	12731
B24-25	156	3.18	1.34	4	0.938	12767
B24-25	156	3.51	1.34	4	0.938	13184
B24-25	156	3.84	1.42	4	0.977	13216
B24-25	156	4.17	1.34	4	0.938	13063
B24-25	156	4.49	1.42	4	0.977	13341
B24-25	156	4.79	1.42	4	0.977	12881
B24-25	156	5.12	1.34	4	0.938	12993
B24-25	156	5.45	1.42	4	0.977	11698
B24-25	156	5.91	1.42	4	0.977	12123
B24-25	156	6.23	1.42	4	0.977	12037
B24-25	156	6.50	1.34	4	0.938	12280
B24-25	156	6.82	1.34	4	0.938	13059

B24-25	156	7.12	1.34	4	0.938	11488
B24-25	157	0.30	1.54	2	1.016	7818
B24-25	157	0.62	1.42	2	0.977	10098
B24-25	157	0.95	1.42	2	0.977	11239
B24-25	157	1.28	1.42	2	0.977	11090
B24-25	157	1.61	1.54	2	1.016	11579
B24-25	157	1.94	1.42	2	0.977	11404
B24-25	157	2.17	1.54	2	1.016	10634
B24-25	157	2.40	1.54	2	1.016	10862
B24-25	157	2.76	1.54	2	1.016	9277
B24-25	157	3.05	1.42	2	0.977	10268
B24-25	157	3.38	1.54	2	1.016	9521
B24-25	157	3.67	1.54	2	1.016	9621
B24-25	157	4.00	1.54	2	1.016	9446
B24-25	157	4.33	1.54	2	1.016	10060
B24-25	157	4.66	1.54	2	1.016	11640
B24-25	157	4.95	1.54	2	1.016	12067
B24-25	157	5.28	1.54	2	1.016	12155
B24-25	157	5.58	1.54	2	1.016	11582
B24-23	158	0.39	1.34	6	0.938	11634
B24-23	158	0.72	1.34	6	0.938	10736
B24-23	158	1.05	1.34	6	0.938	10383
B24-23	158	1.38	1.34	6	0.938	11693
B24-23	158	1.71	1.34	6	0.938	10938
B24-23	158	2.00	1.34	6	0.938	9766
B24-23	158	2.33	1.34	6	0.938	10818
B24-23	158	2.62	1.34	6	0.938	12161
B24-23	158	2.95	1.34	6	0.938	12268
B24-23	158	3.28	1.34	6	0.938	12187
B24-23	158	3.61	1.34	6	0.938	11468
B24-23	158	3.90	1.34	6	0.938	10897
B24-23	158	4.20	1.34	6	0.938	11917
B24-23	158	4.49	1.34	6	0.938	11505
B24-23	158	4.79	1.34	6	0.938	12096
B24-23	158	5.15	1.34	6	0.938	11492
B24-23	158	5.48	1.22	6	0.898	11301
B24-23	158	5.77	1.22	6	0.898	10755
B24-23	158	6.07	1.22	6	0.898	9905
B24-23	159	0.16	1.34	4	0.938	7252
B24-23	159	0.46	1.34	4	0.938	10356
B24-23	159	0.79	1.22	4	0.898	10169
B24-23	159	1.12	1.34	4	0.938	11232
B24-23	159	1.48	1.34	4	0.938	11974
B24-23	159	1.74	1.34	4	0.938	12183
B24-23	159	2.07	1.34	4	0.938	12044
B24-23	159	2.40	1.34	4	0.938	11729
B24-23	159	2.72	1.34	4	0.938	12839

B24-23	159	3.05	1.34	4	0.938	12468
B24-23	159	3.35	1.34	4	0.938	10918
B24-23	159	3.38	1.34	4	0.938	11210
B24-23	159	3.71	1.34	4	0.938	12362
B24-23	159	4.04	1.34	4	0.938	12457
B24-23	159	4.33	1.34	4	0.938	11794
B24-23	159	4.66	1.34	4	0.938	11262
B24-23	159	4.66	1.34	4	0.938	11392
B24-23	159	4.99	1.34	4	0.938	11792
B24-23	159	5.31	1.34	4	0.938	10850
B24-23	159	5.64	1.34	4	0.938	10323
B24-23	159	5.94	1.34	4	0.938	10792
B24-23	159	6.27	1.22	4	0.898	10111
B24-23	159	6.59	1.34	4	0.938	9714
B24-23	159	6.92	1.22	4	0.898	11452
B24-23	159	7.28	1.34	4	0.938	12496
B24-23	160	0.23	1.22	2	0.898	9888
B24-23	160	0.52	1.34	2	0.938	11094
B24-23	160	0.85	1.22	2	0.898	10816
B24-23	160	1.18	1.34	2	0.938	10847
B24-23	160	1.44	1.34	2	0.938	10575
B24-23	160	1.71	1.34	2	0.938	11168
B24-23	160	2.00	1.34	2	0.938	11455
B24-23	160	2.33	1.34	2	0.938	11664
B24-23	160	2.66	1.34	2	0.938	12304
B24-23	160	2.99	1.34	2	0.938	11840
B24-23	160	3.28	1.34	2	0.938	11508
B24-23	160	3.64	1.34	2	0.938	11023
B24-23	160	3.97	1.22	2	0.898	12356
B24-23	160	4.27	1.34	2	0.938	11608
B24-23	160	4.56	1.34	2	0.938	12264
B24-23	160	4.89	1.34	2	0.938	12666
B24-23	160	5.25	1.22	2	0.898	12107
B24-23	160	5.54	1.22	2	0.898	12309
B24-23	160	5.87	1.34	2	0.938	12175
B24-23	160	6.23	1.34	2	0.938	12431
B24-23	160	6.53	1.22	2	0.898	12055
B24-23	160	6.89	1.14	2	0.859	10513
B24-23	160	7.19	1.34	2	0.938	13211
B24-23	160	7.48	1.34	2	0.938	11869
B23-22	161	0.13	1.22	2	0.898	10161
B23-22	161	0.46	1.22	2	0.898	8826
B23-22	161	0.79	1.14	2	0.859	10873
B23-22	161	1.12	1.22	2	0.898	8113
B23-22	161	1.44	1.22	2	0.898	10548
B23-22	161	1.77	1.22	2	0.898	11030
B23-22	161	2.10	1.22	2	0.898	11299

B23-22	161	2.43	1.22	2	0.898	10787
B23-22	161	2.76	1.22	2	0.898	11129
B23-22	161	3.05	1.22	2	0.898	11359
B23-22	161	3.28	1.22	2	0.898	11426
B23-22	161	3.81	1.22	2	0.898	11496
B23-22	161	4.13	1.22	2	0.898	12301
B23-22	161	4.46	1.22	2	0.898	11761
B23-22	161	4.76	1.22	2	0.898	11862
B23-22	161	5.12	1.22	2	0.898	11825
B23-22	161	5.41	1.34	2	0.938	12370
B23-22	161	5.74	1.34	2	0.938	11618
B23-22	161	6.07	1.34	2	0.938	11927
B23-22	161	6.40	1.22	2	0.898	12479
B23-22	161	6.69	1.34	2	0.938	11702
B23-22	161	7.02	1.22	2	0.898	11334
B23-22	162	0.30	1.22	4	0.898	9857
B23-22	162	0.59	1.22	4	0.898	8781
B23-22	162	0.92	1.22	4	0.898	8714
B23-22	162	1.25	1.22	4	0.898	9427
B23-22	162	1.57	1.22	4	0.898	10041
B23-22	162	1.87	1.22	4	0.898	9694
B23-22	162	2.17	1.22	4	0.898	10028
B23-22	162	2.53	1.22	4	0.898	10755
B23-22	162	2.89	1.34	4	0.938	10820
B23-22	162	3.35	1.34	4	0.938	11079
B23-22	162	3.61	1.22	4	0.898	9258
B23-22	162	3.94	1.22	4	0.898	9263
B23-22	162	4.27	1.22	4	0.898	9580
B23-22	162	4.59	1.22	4	0.898	10501
B23-22	162	4.89	1.34	4	0.938	9779
B23-22	162	5.22	1.34	4	0.938	10228
B23-22	162	5.54	1.34	4	0.938	10473
B23-22	162	5.87	1.34	4	0.938	10372
B23-22	162	6.23	1.22	4	0.898	10533
B23-22	162	6.56	1.42	4	0.977	11911
B23-22	163	0.20	1.34	6	0.938	7523
B23-22	163	0.52	1.22	6	0.898	8565
B23-22	163	0.85	1.22	6	0.898	10664
B23-22	163	1.15	1.22	6	0.898	11182
B23-22	163	1.51	1.22	6	0.898	11947
B23-22	163	1.84	1.22	6	0.898	11451
B23-22	163	2.17	1.22	6	0.898	12349
B23-22	163	2.49	1.34	6	0.938	11878
B23-22	163	2.82	1.34	6	0.938	12066
B23-22	163	3.12	1.22	6	0.898	12333
B23-22	163	3.44	1.34	6	0.938	11349
B23-22	163	3.77	1.22	6	0.898	10999

B23-22	163	4.10	1.22	6	0.898	11636
B23-22	163	4.43	1.34	6	0.938	11794
B23-22	163	4.72	1.22	6	0.898	10703
B23-22	163	5.09	1.34	6	0.938	11240
B23-22	163	5.41	1.34	6	0.938	11636
B23-22	163	5.71	1.34	6	0.938	11843
B23-22	163	6.04	1.34	6	0.938	11041
B23-22	163	6.40	1.34	6	0.938	11338
B23-22	163	6.69	1.22	6	0.898	10694
B23-22	163	7.02	1.34	6	0.938	10364
B23-22	163	7.38	1.34	6	0.938	12461
C23-22	164	0.20	1.34	6	0.938	10633
C23-22	164	0.52	1.14	6	0.859	9585
C23-22	164	0.85	1.34	6	0.938	10254
C23-22	164	1.18	1.34	6	0.938	11617
C23-22	164	1.51	1.42	6	0.977	12323
C23-22	164	1.84	1.34	6	0.938	11858
C23-22	164	2.13	1.34	6	0.938	11857
C23-22	164	2.49	1.34	6	0.938	12535
C23-22	164	2.82	1.42	6	0.977	11698
C23-22	164	3.12	1.42	6	0.977	11908
C23-22	164	3.44	1.42	6	0.977	11894
C23-22	164	3.81	1.34	6	0.938	12431
C23-22	164	4.10	1.42	6	0.977	10625
C23-22	164	4.43	1.42	6	0.977	11871
C23-22	164	4.76	1.34	6	0.938	10643
C23-22	164	5.12	1.42	6	0.977	9935
C23-22	164	5.41	1.42	6	0.977	10965
C23-22	164	5.74	1.42	6	0.977	10467
C23-22	164	6.04	1.34	6	0.938	11082
C23-22	164	6.40	1.34	6	0.938	12268
C23-22	164	6.73	1.42	6	0.977	11989
C23-22	164	7.05	1.42	6	0.977	12302
C23-22	165	0.03	1.22	4	0.898	10083
C23-22	165	0.43	1.14	4	0.859	9340
C23-22	165	0.72	1.14	4	0.859	8147
C23-22	165	1.02	1.14	4	0.859	9259
C23-22	165	1.44	1.14	4	0.859	10675
C23-22	165	1.74	1.14	4	0.859	10487
C23-22	165	2.07	1.14	4	0.859	10550
C23-22	165	2.40	1.22	4	0.898	12249
C23-22	165	2.40	1.22	4	0.898	12303
C23-22	165	2.72	1.14	4	0.859	12227
C23-22	165	3.05	1.14	4	0.859	12237
C23-22	165	3.35	1.14	4	0.859	12146
C23-22	165	3.67	1.22	4	0.898	12474
C23-22	165	3.97	1.22	4	0.898	11994

C23-22	165	4.27	1.22	4	0.898	11694
C23-22	165	4.53	1.22	4	0.898	12265
C23-22	165	4.82	1.22	4	0.898	12306
C23-22	165	5.15	1.22	4	0.898	11793
C23-22	165	5.45	1.14	4	0.859	11698
C23-22	165	5.71	1.14	4	0.859	11286
C23-22	165	5.94	1.22	4	0.898	11212
C23-22	165	6.23	1.22	4	0.898	11067
C23-22	165	6.53	1.22	4	0.898	8990
C23-22	166	0.43	1.69	2	1.094	7991
C23-22	166	0.89	1.61	2	1.055	8212
C23-22	166	1.21	1.54	2	1.016	8625
C23-22	166	1.54	1.54	2	1.016	9266
C23-22	166	1.87	1.61	2	1.055	11956
C23-22	166	2.20	1.61	2	1.055	11739
C23-22	166	2.53	1.54	2	1.016	11210
C23-22	166	2.82	1.54	2	1.016	10209
C23-22	166	3.15	1.61	2	1.055	11369
C23-22	166	3.48	1.54	2	1.016	10745
C23-22	166	3.81	1.54	2	1.016	11534
C23-22	166	4.13	1.54	2	1.016	12322
C23-22	166	4.43	1.61	2	1.055	12227
C23-22	166	4.72	1.61	2	1.055	11722
C23-22	166	5.09	1.61	2	1.055	10917
C23-22	166	5.38	1.61	2	1.055	11733
C23-22	166	5.71	1.54	2	1.016	11357
C23-22	166	6.04	1.61	2	1.055	11794
C23-22	166	6.33	1.61	2	1.055	12343
C23-22	166	6.69	1.54	2	1.016	11053
C23-22	166	7.02	1.61	2	1.055	10433
C23-22	166	7.35	1.69	2	1.094	10819
C23-22	166	7.68	1.61	2	1.055	8576
C23-24	167	0.16	1.14	6	0.859	10673
C23-24	167	0.49	1.22	6	0.898	11160
C23-24	167	0.82	1.22	6	0.898	11308
C23-24	167	1.15	1.22	6	0.898	11337
C23-24	167	1.48	1.22	6	0.898	11234
C23-24	167	1.77	1.22	6	0.898	11434
C23-24	167	2.07	1.22	6	0.898	13348
C23-24	167	2.40	1.22	6	0.898	12605
C23-24	167	3.18	1.22	6	0.898	13144
C23-24	167	3.48	1.22	6	0.898	11809
C23-24	167	3.81	1.22	6	0.898	10765
C23-24	167	4.13	1.34	6	0.938	12797
C23-24	167	4.46	1.22	6	0.898	11624
C23-24	167	4.76	1.22	6	0.898	11466
C23-24	167	5.12	1.34	6	0.938	12233

C23-24	167	5.45	1.22	6	0.898	11461
C23-24	167	5.77	1.22	6	0.898	11906
C23-24	167	6.07	1.34	6	0.938	10340
C23-24	167	6.40	1.34	6	0.938	9150
C23-24	168	0.07	1.22	4	0.898	8939
C23-24	168	0.43	1.22	4	0.898	8763
C23-24	168	0.72	1.22	4	0.898	10404
C23-24	168	1.02	1.22	4	0.898	9860
C23-24	168	1.35	1.22	4	0.898	9739
C23-24	168	1.67	1.22	4	0.898	11369
C23-24	168	2.00	1.34	4	0.938	11938
C23-24	168	2.33	1.22	4	0.898	12210
C23-24	168	2.66	1.34	4	0.938	12812
C23-24	168	2.99	1.34	4	0.938	12750
C23-24	168	3.28	1.34	4	0.938	12065
C23-24	168	3.58	1.34	4	0.938	11531
C23-24	168	3.90	1.14	4	0.859	11560
C23-24	168	4.23	1.34	4	0.938	12276
C23-24	168	4.27	1.34	4	0.938	11573
C23-24	168	4.53	1.34	4	0.938	11969
C23-24	168	4.79	1.34	4	0.938	12750
C23-24	168	5.09	1.34	4	0.938	12275
C23-24	168	5.41	1.34	4	0.938	12602
C23-24	168	5.71	1.34	4	0.938	12566
C23-24	168	5.94	1.34	4	0.938	12929
C23-24	168	6.10	1.34	4	0.938	13396
C23-24	169	0.36	1.34	2	0.938	7236
C23-24	169	0.66	1.22	2	0.898	9591
C23-24	169	0.98	1.22	2	0.898	8714
C23-24	169	1.31	1.34	2	0.938	9674
C23-24	169	1.64	1.34	2	0.938	11117
C23-24	169	1.94	1.34	2	0.938	12262
C23-24	169	2.26	1.34	2	0.938	12399
C23-24	169	2.59	1.34	2	0.938	12617
C23-24	169	2.92	1.34	2	0.938	12817
C23-24	169	3.22	1.34	2	0.938	12392
C23-24	169	3.51	1.42	2	0.977	11564
C23-24	169	3.77	1.34	2	0.938	12864
C23-24	169	4.04	1.34	2	0.938	11277
C23-24	169	4.27	1.34	2	0.938	11144
C23-24	169	4.53	1.34	2	0.938	10611
C23-24	169	4.86	1.34	2	0.938	12025
C23-24	169	5.18	1.34	2	0.938	12069
C23-24	169	5.51	1.34	2	0.938	12305
C23-24	169	5.84	1.34	2	0.938	12354
C23-24	169	6.17	1.34	2	0.938	11742
C23-24	169	6.46	1.34	2	0.938	11172

C23-24	169	6.79	1.34	2	0.938	11383
C24-25	170	0.20	1.34	6	0.938	9652
C24-25	170	0.49	1.34	6	0.938	10144
C24-25	170	0.82	1.34	6	0.938	12134
C24-25	170	1.15	1.34	6	0.938	10842
C24-25	170	1.41	1.34	6	0.938	11628
C24-25	170	1.74	1.42	6	0.977	11755
C24-25	170	2.07	1.42	6	0.977	11504
C24-25	170	2.46	1.42	6	0.977	12021
C24-25	170	2.69	1.42	6	0.977	11271
C24-25	170	2.95	1.42	6	0.977	12201
C24-25	170	3.28	1.42	6	0.977	12000
C24-25	170	3.58	1.34	6	0.938	11530
C24-25	170	3.90	1.42	6	0.977	12540
C24-25	170	4.23	1.42	6	0.977	12609
C24-25	170	4.56	1.42	6	0.977	12380
C24-25	170	4.89	1.42	6	0.977	12221
C24-25	170	5.15	1.34	6	0.938	11741
C24-25	170	5.48	1.42	6	0.977	12495
C24-25	170	5.81	1.42	6	0.977	12399
C24-25	170	6.14	1.34	6	0.938	12603
C24-25	170	6.46	1.42	6	0.977	12074
C24-25	170	6.76	1.34	6	0.938	11745
C24-25	170	7.09	1.42	6	0.977	12198
C24-25	171	0.16	1.54	4	1.016	10046
C24-25	171	0.46	1.54	4	1.016	9455
C24-25	171	0.79	1.54	4	1.016	10759
C24-25	171	1.12	1.54	4	1.016	9603
C24-25	171	1.48	1.61	4	1.055	11032
C24-25	171	1.80	1.54	4	1.016	11569
C24-25	171	2.13	1.54	4	1.016	11510
C24-25	171	2.46	1.54	4	1.016	10360
C24-25	171	2.79	1.54	4	1.016	10806
C24-25	171	3.12	1.61	4	1.055	11455
C24-25	171	3.44	1.54	4	1.016	11202
C24-25	171	3.77	1.54	4	1.016	9831
C24-25	171	4.10	1.61	4	1.055	11122
C24-25	171	4.43	1.54	4	1.016	11455
C24-25	171	4.76	1.54	4	1.016	8824
C24-25	171	5.05	1.54	4	1.016	8664
C24-25	171	5.41	1.54	4	1.016	10602
C24-25	171	5.71	1.54	4	1.016	11781
C24-25	171	6.00	1.54	4	1.016	10490
C24-25	171	6.36	1.54	4	1.016	9777
C24-25	171	6.66	1.54	4	1.016	9825
C24-25	171	6.99	1.54	4	1.016	10414
C24-25	171	7.35	1.54	4	1.016	10709

C24-25	172	0.33	1.22	2	0.898	9190
C24-25	172	0.62	1.34	2	0.938	9935
C24-25	172	0.95	1.34	2	0.938	11199
C24-25	172	1.31	1.42	2	0.977	12926
C24-25	172	1.61	1.42	2	0.977	12054
C24-25	172	1.90	1.42	2	0.977	11370
C24-25	172	2.20	1.42	2	0.977	11921
C24-25	172	2.53	1.34	2	0.938	10596
C24-25	172	2.85	1.42	2	0.977	9838
C24-25	172	3.15	1.42	2	0.977	11035
C24-25	172	3.48	1.42	2	0.977	11348
C24-25	172	3.84	1.34	2	0.938	9869
C24-25	172	4.13	1.34	2	0.938	11117
C24-25	172	4.46	1.34	2	0.938	11024
C24-25	172	4.79	1.42	2	0.977	11164
C24-25	172	5.12	1.34	2	0.938	12039
C24-25	172	5.45	1.34	2	0.938	10627
C24-25	172	5.77	1.34	2	0.938	11268
C25-26	173	0.10	1.22	2	0.898	12442
C25-26	173	0.36	1.34	2	0.938	12253
C25-26	173	0.62	1.34	2	0.938	12135
C25-26	173	0.92	1.34	2	0.938	12530
C25-26	173	1.25	1.34	2	0.938	12280
C25-26	173	1.48	1.34	2	0.938	12879
C25-26	173	1.74	1.22	2	0.898	10012
C25-26	173	2.00	1.22	2	0.898	10373
C25-26	173	2.33	1.14	2	0.859	10870
C25-26	173	2.66	1.22	2	0.898	7000
C25-26	173	2.95	1.22	2	0.898	6977
C25-26	173	3.28	1.22	2	0.898	8834
C25-26	173	3.61	1.22	2	0.898	10370
C25-26	173	3.94	1.22	2	0.898	9510
C25-26	173	4.27	1.22	2	0.898	7953
C25-26	173	4.56	1.22	2	0.898	9699
C25-26	173	4.82	1.22	2	0.898	9232
C25-26	173	5.15	1.22	2	0.898	7117
C25-26	173	5.48	1.34	2	0.938	9078
C25-26	173	5.81	1.42	2	0.977	9886
C25-26	174	0.20	1.22	4	0.898	11657
C25-26	174	0.59	1.22	4	0.898	11862
C25-26	174	0.89	1.22	4	0.898	10607
C25-26	174	1.18	1.22	4	0.898	9021
C25-26	174	1.54	1.22	4	0.898	10489
C25-26	174	1.87	1.14	4	0.859	12296
C25-26	174	2.20	1.22	4	0.898	12907
C25-26	174	2.53	1.14	4	0.859	11216
C25-26	174	2.85	1.22	4	0.898	12128

C25-26	174	2.85	1.22	4	0.898	12209
C25-26	174	3.15	1.14	4	0.859	13086
C25-26	174	3.48	1.14	4	0.859	11869
C25-26	174	3.84	1.14	4	0.859	11022
C25-26	174	4.17	1.14	4	0.859	11915
C25-26	174	4.46	1.14	4	0.859	10152
C25-26	174	4.79	1.14	4	0.859	9681
C25-26	174	5.12	1.14	4	0.859	8786
C25-26	174	5.41	1.14	4	0.859	8230
C25-26	174	5.74	1.22	4	0.898	9125
C25-26	175	0.30	1.22	6	0.898	11689
C25-26	175	0.59	1.22	6	0.898	10765
C25-26	175	0.92	1.22	6	0.898	10492
C25-26	175	1.25	1.22	6	0.898	11488
C25-26	175	1.57	1.14	6	0.859	9398
C25-26	175	1.90	1.22	6	0.898	10545
C25-26	175	2.23	1.22	6	0.898	10760
C25-26	175	2.56	1.22	6	0.898	12670
C25-26	175	2.89	1.02	6	0.82	11582
C25-26	175	3.22	1.14	6	0.859	11819
C25-26	175	3.54	1.14	6	0.859	11599
C25-26	175	3.87	1.14	6	0.859	11484
C25-26	175	4.17	1.14	6	0.859	11365
C25-26	175	4.53	1.14	6	0.859	11302
C25-26	175	4.82	1.14	6	0.859	11072
C25-26	175	5.18	1.14	6	0.859	9650
C25-26	175	5.51	1.14	6	0.859	10566
C25-26	175	5.81	1.02	6	0.82	11399
C25-26	175	6.14	1.22	6	0.898	9981
C25-26	175	6.56	1.34	6	0.938	8081
D25-26	176	0.13	1.14	2	0.859	11490
D25-26	176	0.43	1.14	2	0.859	10138
D25-26	176	0.75	1.14	2	0.859	9418
D25-26	176	1.08	1.14	2	0.859	12512
D25-26	176	1.41	1.22	2	0.898	12362
D25-26	176	1.84	1.22	2	0.898	12669
D25-26	176	2.17	1.14	2	0.859	12307
D25-26	176	2.49	1.14	2	0.859	12118
D25-26	176	2.82	1.14	2	0.859	11641
D25-26	176	3.12	1.14	2	0.859	10758
D25-26	176	3.44	1.14	2	0.859	11720
D25-26	176	3.77	1.22	2	0.898	12112
D25-26	176	4.04	1.14	2	0.859	11478
D25-26	176	4.36	1.22	2	0.898	12180
D25-26	176	4.66	1.22	2	0.898	12983
D25-26	176	4.99	1.22	2	0.898	11745
D25-26	176	5.31	1.22	2	0.898	11855

D25-26	176	5.61	1.22	2	0.898	8541
D25-26	176	5.94	1.34	2	0.938	6324
D25-26	176	6.23	1.34	2	0.938	5385
D25-26	177	0.07	1.34	4	0.938	12796
D25-26	177	0.36	1.34	4	0.938	12062
D25-26	177	0.69	1.22	4	0.898	10914
D25-26	177	1.02	1.34	4	0.938	12686
D25-26	177	1.38	1.34	4	0.938	12289
D25-26	177	1.64	1.34	4	0.938	12337
D25-26	177	2.00	1.34	4	0.938	12648
D25-26	177	2.30	1.34	4	0.938	13105
D25-26	177	2.62	1.34	4	0.938	12977
D25-26	177	2.95	1.34	4	0.938	12738
D25-26	177	3.25	1.34	4	0.938	12614
D25-26	177	3.58	1.34	4	0.938	10431
D25-26	177	3.90	1.34	4	0.938	11415
D25-26	177	4.23	1.22	4	0.898	10474
D25-26	177	4.56	1.34	4	0.938	9229
D25-26	177	4.86	1.34	4	0.938	8612
D25-26	177	5.18	1.34	4	0.938	8896
D25-26	177	5.48	1.34	4	0.938	7615
D25-26	177	5.81	1.54	4	1.016	5975
D25-26	177	6.10	1.61	4	1.055	6159
D25-26	178	0.13	1.22	6	0.898	11611
D25-26	178	0.46	1.22	6	0.898	10039
D25-26	178	0.46	1.22	6	0.898	9113
D25-26	178	0.79	1.22	6	0.898	11926
D25-26	178	1.12	1.22	6	0.898	11764
D25-26	178	1.44	1.22	6	0.898	13028
D25-26	178	1.77	1.22	6	0.898	12406
D25-26	178	2.10	1.22	6	0.898	12871
D25-26	178	2.43	1.22	6	0.898	12405
D25-26	178	2.76	1.14	6	0.859	12179
D25-26	178	3.08	1.22	6	0.898	11098
D25-26	178	3.38	1.14	6	0.859	11751
D25-26	178	3.71	1.22	6	0.898	11367
D25-26	178	4.04	1.22	6	0.898	10981
D25-26	178	4.33	1.22	6	0.898	9825
D25-26	178	4.33	1.22	6	0.898	10211
D25-26	178	4.63	1.22	6	0.898	9366
D25-26	178	4.95	1.22	6	0.898	10426
D25-26	178	5.25	1.22	6	0.898	9097
D25-26	178	5.54	1.22	6	0.898	8688
D25-26	178	5.87	1.14	6	0.859	9220
D25-26	178	6.17	1.34	6	0.938	7915
D25-26	178	6.50	1.42	6	0.977	8079
D24-25	179	0.26	1.42	6	0.977	7014

D24-25	179	0.59	1.34	6	0.938	9156
D24-25	179	0.92	1.34	6	0.938	10914
D24-25	179	1.25	1.34	6	0.938	10233
D24-25	179	1.94	1.22	6	0.898	9216
D24-25	179	2.20	1.34	6	0.938	11224
D24-25	179	2.56	1.34	6	0.938	11285
D24-25	179	2.89	1.34	6	0.938	10279
D24-25	179	3.18	1.22	6	0.898	12433
D24-25	179	3.48	1.34	6	0.938	10783
D24-25	179	3.77	1.34	6	0.938	8006
D24-25	179	4.00	1.42	6	0.977	9270
D24-25	179	4.33	1.42	6	0.977	4892
D24-25	179	4.63	1.42	6	0.977	7347
D24-25	179	4.92	1.34	6	0.938	7048
D24-25	179	5.22	1.34	6	0.938	7135
D24-25	179	5.51	1.34	6	0.938	7372
D24-25	179	5.77	1.42	6	0.977	5277
D24-25	179	6.10	1.22	6	0.898	4304
D24-25	179	6.40	1.42	6	0.977	4428
D24-25	179	6.66	1.54	6	1.016	5792
D24-25	180	0.16	1.34	4	0.938	8879
D24-25	180	0.46	1.34	4	0.938	8378
D24-25	180	0.75	1.22	4	0.898	9583
D24-25	180	1.08	1.14	4	0.859	11159
D24-25	180	1.44	1.14	4	0.859	9789
D24-25	180	1.74	1.22	4	0.898	9565
D24-25	180	2.03	1.14	4	0.859	9142
D24-25	180	2.30	1.22	4	0.898	9779
D24-25	180	2.56	1.14	4	0.859	8855
D24-25	180	2.89	1.22	4	0.898	8813
D24-25	180	3.18	1.14	4	0.859	8875
D24-25	180	3.51	1.14	4	0.859	7726
D24-25	180	3.81	1.22	4	0.898	8419
D24-25	180	4.10	1.22	4	0.898	8655
D24-25	180	4.40	1.22	4	0.898	7592
D24-25	180	4.43	1.22	4	0.898	7464
D24-25	180	4.72	1.22	4	0.898	8963
D24-25	180	5.05	1.22	4	0.898	7689
D24-25	180	5.35	1.22	4	0.898	7197
D24-25	180	5.64	1.22	4	0.898	9854
D24-25	180	5.64	1.22	4	0.898	9235
D24-25	180	5.97	1.22	4	0.898	6492
D24-25	180	6.30	1.22	4	0.898	6799
D24-25	180	6.59	1.14	4	0.859	8665
D24-25	180	6.92	1.34	4	0.938	7706
D24-25	181	0.36	1.22	2	0.898	9313
D24-25	181	0.66	1.14	2	0.859	9486

D24-25	181	0.95	1.14	2	0.859	8582
D24-25	181	1.21	1.14	2	0.859	9071
D24-25	181	1.54	1.14	2	0.859	8228
D24-25	181	1.87	1.14	2	0.859	8367
D24-25	181	2.13	1.14	2	0.859	8158
D24-25	181	2.46	1.14	2	0.859	8994
D24-25	181	2.95	1.14	2	0.859	9907
D24-25	181	3.25	1.14	2	0.859	8451
D24-25	181	3.54	1.14	2	0.859	9925
D24-25	181	3.84	1.14	2	0.859	8055
D24-25	181	4.20	1.22	2	0.898	9928
D24-25	181	4.53	1.22	2	0.898	10979
D24-25	181	4.82	1.22	2	0.898	10713
D24-25	181	5.18	1.22	2	0.898	11168
D24-25	181	5.48	1.22	2	0.898	11054
D24-25	181	5.81	1.22	2	0.898	9006
D24-25	181	6.10	1.22	2	0.898	9418
D24-25	181	6.43	1.14	2	0.859	9150
D24-23	182	0.39	1.54	2	1.016	8705
D24-23	182	0.72	1.54	2	1.016	11128
D24-23	182	1.02	1.61	2	1.055	9585
D24-23	182	1.38	1.54	2	1.016	10109
D24-23	182	1.67	1.54	2	1.016	11621
D24-23	182	2.00	1.54	2	1.016	11439
D24-23	182	2.30	1.54	2	1.016	10884
D24-23	182	2.66	1.54	2	1.016	12517
D24-23	182	2.99	1.54	2	1.016	12619
D24-23	182	3.28	1.54	2	1.016	12309
D24-23	182	3.61	1.54	2	1.016	11885
D24-23	182	3.84	1.54	2	1.016	11607
D24-23	182	4.13	1.54	2	1.016	12926
D24-23	182	4.46	1.54	2	1.016	11288
D24-23	182	4.79	1.54	2	1.016	11046
D24-23	182	5.12	1.54	2	1.016	11125
D24-23	182	5.12	1.54	2	1.016	11763
D24-23	182	5.45	1.42	2	0.977	10667
D24-23	182	5.74	1.54	2	1.016	10664
D24-23	182	6.07	1.42	2	0.977	12248
D24-23	182	6.40	1.54	2	1.016	9299
D24-23	182	6.73	1.61	2	1.055	9072
D24-23	183	1.02	1.69	4	1.094	5289
D24-23	183	1.35	1.61	4	1.055	12802
D24-23	183	1.61	1.61	4	1.055	10585
D24-23	183	1.97	1.69	4	1.094	12382
D24-23	183	2.30	1.69	4	1.094	13641
D24-23	183	2.66	1.69	4	1.094	12914
D24-23	183	2.95	1.69	4	1.094	12483

D24-23	183	3.28	1.61	4	1.055	12935
D24-23	183	3.61	1.69	4	1.094	12256
D24-23	183	3.94	1.61	4	1.055	12067
D24-23	183	4.27	1.61	4	1.055	12243
D24-23	183	4.59	1.61	4	1.055	10033
D24-23	183	4.89	1.61	4	1.055	10843
D24-23	183	5.15	1.61	4	1.055	11283
D24-23	183	5.48	1.61	4	1.055	9949
D24-23	183	5.77	1.61	4	1.055	10541
D24-23	183	6.10	1.61	4	1.055	8812
D24-23	183	6.43	1.61	4	1.055	7515
D24-23	183	6.73	1.42	4	0.977	8111
D24-23	183	7.05	1.69	4	1.094	5617
D24-23	183	7.35	1.69	4	1.094	8214
D24-23	184	1.21	1.54	6	1.016	13438
D24-23	184	1.51	1.54	6	1.016	12737
D24-23	184	1.84	1.54	6	1.016	13188
D24-23	184	2.13	1.54	6	1.016	11619
D24-23	184	2.49	1.54	6	1.016	11318
D24-23	184	2.79	1.54	6	1.016	12030
D24-23	184	3.08	1.22	6	0.898	9529
D24-23	184	3.48	1.42	6	0.977	12924
D24-23	184	3.77	1.42	6	0.977	10507
D24-23	184	4.10	1.42	6	0.977	9818
D24-23	184	4.43	1.42	6	0.977	9085
D24-23	184	4.79	1.42	6	0.977	10287
D24-23	184	5.12	1.42	6	0.977	10847
D24-23	184	5.45	1.42	6	0.977	10046
D24-23	184	5.74	1.42	6	0.977	10333
D24-23	184	6.07	1.34	6	0.938	10189
D24-23	184	6.40	1.54	6	1.016	7497
D24-23	184	6.73	1.61	6	1.055	7486
D22-23	185	0.39	1.69	2	1.094	9125
D22-23	185	0.75	1.54	2	1.016	7421
D22-23	185	1.12	1.54	2	1.016	8354
D22-23	185	1.44	1.54	2	1.016	10042
D22-23	185	1.77	1.54	2	1.016	11738
D22-23	185	2.10	1.54	2	1.016	11766
D22-23	185	2.40	1.54	2	1.016	11749
D22-23	185	2.72	1.54	2	1.016	11626
D22-23	185	3.05	1.54	2	1.016	10912
D22-23	185	3.31	1.54	2	1.016	11725
D22-23	185	3.64	1.61	2	1.055	12418
D22-23	185	3.97	1.54	2	1.016	12086
D22-23	185	4.27	1.61	2	1.055	11931
D22-23	185	4.59	1.61	2	1.055	12885
D22-23	185	4.92	1.61	2	1.055	12268

D22-23	185	5.25	1.61	2	1.055	12523
D22-23	185	5.58	1.61	2	1.055	12759
D22-23	185	5.87	1.54	2	1.016	11846
D22-23	185	6.23	1.54	2	1.016	11501
D22-23	185	6.56	1.54	2	1.016	12907
D22-23	185	6.92	1.34	2	0.938	9113
D22-23	186	0.39	1.42	4	0.977	10077
D22-23	186	0.98	1.54	4	1.016	8327
D22-23	186	1.31	1.54	4	1.016	9683
D22-23	186	1.61	1.54	4	1.016	11903
D22-23	186	1.94	1.54	4	1.016	11259
D22-23	186	2.26	1.54	4	1.016	12251
D22-23	186	2.59	1.54	4	1.016	10019
D22-23	186	2.92	1.54	4	1.016	10588
D22-23	186	3.22	1.54	4	1.016	9903
D22-23	186	3.54	1.54	4	1.016	11162
D22-23	186	3.84	1.54	4	1.016	10298
D22-23	186	4.10	1.54	4	1.016	8890
D22-23	186	4.43	1.54	4	1.016	8491
D22-23	186	4.72	1.54	4	1.016	9117
D22-23	186	5.05	1.61	4	1.055	5922
D22-23	186	5.38	1.54	4	1.016	8607
D22-23	186	5.64	1.61	4	1.055	8422
D22-23	186	5.64	1.61	4	1.055	8273
D22-23	186	5.94	1.61	4	1.055	6233
D22-23	186	6.30	1.54	4	1.016	7447
D22-23	186	6.59	1.54	4	1.016	6915
D22-23	186	6.89	1.69	4	1.094	8490
D22-23	187	0.33	1.54	6	1.016	8762
D22-23	187	0.59	1.42	6	0.977	9702
D22-23	187	0.98	1.54	6	1.016	8452
D22-23	187	1.31	1.54	6	1.016	9448
D22-23	187	1.64	1.54	6	1.016	10567
D22-23	187	1.97	1.54	6	1.016	10406
D22-23	187	2.26	1.42	6	0.977	10031
D22-23	187	2.59	1.54	6	1.016	8792
D22-23	187	2.89	1.54	6	1.016	10860
D22-23	187	3.18	1.54	6	1.016	9491
D22-23	187	3.51	1.54	6	1.016	9227
D22-23	187	3.81	1.42	6	0.977	10514
D22-23	187	4.10	1.54	6	1.016	7623
D22-23	187	4.36	1.61	6	1.055	8095
D22-23	187	4.59	1.54	6	1.016	8317
D22-23	187	4.86	1.61	6	1.055	6518
D22-23	187	5.15	1.61	6	1.055	6400
D22-23	187	5.38	1.61	6	1.055	7270
D22-23	187	5.68	1.61	6	1.055	5883

D22-23	187	6.17	1.42	6	0.977	7192
A11-12	188	0.07	1.13	2	0.859	16439
A11-12	188	0.37	1.13	2	0.859	14463
A11-12	188	0.70	0.79	2	0.742	9847
A11-12	188	1.05	1.13	2	0.859	16748
A11-12	188	1.35	1.13	2	0.859	14867
A11-12	188	1.66	1.13	2	0.859	15643
A11-12	188	1.99	1.13	2	0.859	14624
A11-12	188	2.32	1.13	2	0.859	14869
A11-12	188	2.66	1.13	2	0.859	15538
A11-12	188	2.99	1.13	2	0.859	15398
A11-12	188	3.30	1.13	2	0.859	14949
A11-12	188	3.62	1.13	2	0.859	15354
A11-12	188	3.94	1.03	2	0.82	15691
A11-12	188	4.30	1.23	2	0.898	15236
A11-12	188	4.62	1.23	2	0.898	13535
A11-12	189	0.02	0.91	4	0.781	13135
A11-12	189	0.30	1.13	4	0.859	15807
A11-12	189	0.61	1.13	4	0.859	14701
A11-12	189	0.95	1.13	4	0.859	14744
A11-12	189	1.28	1.13	4	0.859	14697
A11-12	189	1.61	1.13	4	0.859	14834
A11-12	189	1.92	1.13	4	0.859	13758
A11-12	189	2.26	1.13	4	0.859	15114
A11-12	189	2.59	1.13	4	0.859	15042
A11-12	189	2.89	1.13	4	0.859	14318
A11-12	189	3.14	0.91	4	0.781	15494
A11-12	189	3.47	1.23	4	0.898	14233
A11-12	189	3.80	1.23	4	0.898	11993
A11-12	190	0.15	1.03	6	0.82	14589
A11-12	190	0.45	1.03	6	0.82	14299
A11-12	190	0.78	1.03	6	0.82	14253
A11-12	190	1.10	1.03	6	0.82	14223
A11-12	190	1.43	1.03	6	0.82	14038
A11-12	190	1.74	1.03	6	0.82	12673
A11-12	190	2.06	1.03	6	0.82	12275
A11-12	190	2.39	1.03	6	0.82	12405
A11-12	190	2.69	1.03	6	0.82	13408
A11-12	190	3.00	0.91	6	0.781	11222
A11-12	190	3.35	1.03	6	0.82	13717
A11-12	190	3.70	1.03	6	0.82	14078
A12-13	191	0.27	1.43	2	0.977	12888
A12-13	191	0.63	1.23	2	0.898	14507
A12-13	191	0.95	1.33	2	0.938	12338
A12-13	191	1.25	1.23	2	0.898	10916
A12-13	191	1.58	1.33	2	0.938	12158
A12-13	191	1.89	1.23	2	0.898	10966

A12-13	191	2.19	1.23	2	0.898	10938
A12-13	191	2.53	1.23	2	0.898	12603
A12-13	191	2.83	1.13	2	0.859	14035
A12-13	191	3.11	1.33	2	0.938	12775
A12-13	191	3.37	1.23	2	0.898	11557
A12-13	191	3.67	1.23	2	0.898	10865
A12-13	191	4.02	1.33	2	0.938	12078
A12-13	191	4.34	1.23	2	0.898	10815
A12-13	191	4.67	1.23	2	0.898	11454
A12-13	191	4.95	1.23	2	0.898	13568
A12-13	191	5.33	1.33	2	0.938	12800
A12-13	191	5.63	1.33	2	0.938	11514
A12-13	192	0.10	1.61	4	1.055	5380
A12-13	192	0.40	1.52	4	1.016	12097
A12-13	192	0.76	1.43	4	0.977	14727
A12-13	192	1.33	1.43	4	0.977	12779
A12-13	192	1.64	1.43	4	0.977	12670
A12-13	192	1.98	1.43	4	0.977	13427
A12-13	192	2.29	1.43	4	0.977	12794
A12-13	192	2.54	1.43	4	0.977	11872
A12-13	192	2.84	1.43	4	0.977	13094
A12-13	192	3.16	1.43	4	0.977	12463
A12-13	192	3.49	1.43	4	0.977	12198
A12-13	192	3.82	1.43	4	0.977	13045
A12-13	192	4.14	1.43	4	0.977	12334
A12-13	192	4.44	1.43	4	0.977	12893
A12-13	192	4.77	1.33	4	0.938	13529
A12-13	192	5.10	1.52	4	1.016	13752
A12-13	193	0.23	1.43	6	0.977	12604
A12-13	193	0.60	1.33	6	0.938	12467
A12-13	193	0.91	1.33	6	0.938	12524
A12-13	193	1.21	1.33	6	0.938	13602
A12-13	193	1.55	1.33	6	0.938	13526
A12-13	193	1.88	1.33	6	0.938	13371
A12-13	193	2.19	1.33	6	0.938	13558
A12-13	193	2.51	1.43	6	0.977	13857
A12-13	193	2.82	1.33	6	0.938	13141
A12-13	193	3.12	1.33	6	0.938	13411
A12-13	193	3.47	1.43	6	0.977	13714
A12-13	193	3.79	1.43	6	0.977	13441
A12-13	193	4.12	1.43	6	0.977	13940
A12-13	193	4.45	1.33	6	0.938	12971
A12-13	193	4.77	1.43	6	0.977	13369
A12-13	193	5.08	1.33	6	0.938	12561
A13-14	194	0.07	1.23	6	0.898	13422
A13-14	194	0.40	1.23	6	0.898	13639
A13-14	194	0.72	1.23	6	0.898	13632

A13-14	194	1.08	1.23	6	0.898	12646
A13-14	194	1.36	1.23	6	0.898	12955
A13-14	194	1.70	1.13	6	0.859	12254
A13-14	194	2.01	1.13	6	0.859	11237
A13-14	194	2.36	1.23	6	0.898	12421
A13-14	194	2.68	1.13	6	0.859	12628
A13-14	194	2.99	1.23	6	0.898	12368
A13-14	194	3.34	0.91	6	0.781	10068
A13-14	194	3.66	1.13	6	0.859	11308
A13-14	194	3.97	1.13	6	0.859	12236
A13-14	194	4.29	1.13	6	0.859	11553
A13-14	194	4.62	1.13	6	0.859	12383
A13-14	194	4.94	1.13	6	0.859	12045
A13-14	194	5.27	1.23	6	0.898	11578
A13-14	194	5.59	1.13	6	0.859	10815
A13-14	194	5.92	1.13	6	0.859	11159
A13-14	194	6.24	1.13	6	0.859	10139
A13-14	194	6.53	0.91	6	0.781	8108
A13-14	194	6.88	1.13	6	0.859	9873
A13-14	195	0.07	1.33	4	0.938	12700
A13-14	195	0.42	1.33	4	0.938	9466
A13-14	195	0.75	1.23	4	0.898	11771
A13-14	195	1.06	1.23	4	0.898	12540
A13-14	195	1.40	1.23	4	0.898	10796
A13-14	195	1.73	1.33	4	0.938	12484
A13-14	195	2.06	1.23	4	0.898	11029
A13-14	195	2.39	1.23	4	0.898	12510
A13-14	195	2.73	1.23	4	0.898	12523
A13-14	195	3.04	1.23	4	0.898	11925
A13-14	195	3.38	1.23	4	0.898	11907
A13-14	195	3.67	1.23	4	0.898	10979
A13-14	195	4.01	1.23	4	0.898	12904
A13-14	195	4.34	1.23	4	0.898	12162
A13-14	195	4.66	1.23	4	0.898	12015
A13-14	195	4.97	1.23	4	0.898	12196
A13-14	195	5.29	1.23	4	0.898	11212
A13-14	195	5.64	1.23	4	0.898	11210
A13-14	195	5.97	1.23	4	0.898	12050
A13-14	195	6.30	1.23	4	0.898	12606
A13-14	195	6.57	1.23	4	0.898	10895
A13-14	196	0.25	1.33	2	0.938	12957
A13-14	196	0.57	1.03	2	0.82	9854
A13-14	196	0.91	1.23	2	0.898	12866
A13-14	196	1.23	1.23	2	0.898	11938
A13-14	196	1.50	1.23	2	0.898	11767
A13-14	196	1.78	1.23	2	0.898	12564
A13-14	196	2.06	1.23	2	0.898	12268

A13-14	196	2.34	1.23	2	0.898	12465
A13-14	196	2.66	1.03	2	0.82	11109
A13-14	196	2.98	1.23	2	0.898	11969
A13-14	196	3.31	1.23	2	0.898	12595
A13-14	196	3.62	1.23	2	0.898	12079
A13-14	196	3.96	1.23	2	0.898	12037
A13-14	196	4.27	1.23	2	0.898	12097
A13-14	196	4.61	1.23	2	0.898	12020
A13-14	196	4.92	1.13	2	0.859	10600
A13-14	196	5.25	1.13	2	0.859	10626
A13-14	196	5.55	1.13	2	0.859	10458
A13-14	196	5.89	0.79	2	0.742	7910
A13-14	196	6.22	1.13	2	0.859	9639
A13-14	196	6.57	1.13	2	0.859	9003
A14-15	197	0.22	1.13	6	0.859	10490
A14-15	197	0.55	1.23	6	0.898	11670
A14-15	197	0.86	1.03	6	0.82	11477
A14-15	197	1.20	1.13	6	0.859	11622
A14-15	197	1.53	1.23	6	0.898	11662
A14-15	197	1.83	1.23	6	0.898	12045
A14-15	197	2.14	1.13	6	0.859	11548
A14-15	197	2.47	1.13	6	0.859	11700
A14-15	197	2.79	1.13	6	0.859	10888
A14-15	197	3.12	1.13	6	0.859	11226
A14-15	197	3.45	1.13	6	0.859	11232
A14-15	197	3.79	0.79	6	0.742	7511
A14-15	197	4.10	1.13	6	0.859	10988
A14-15	198	0.35	1.33	4	0.938	11144
A14-15	198	0.68	1.23	4	0.898	10385
A14-15	198	1.00	1.23	4	0.898	9636
A14-15	198	1.33	1.23	4	0.898	10924
A14-15	198	1.64	1.23	4	0.898	9456
A14-15	198	1.96	1.23	4	0.898	8889
A14-15	198	2.31	1.13	4	0.859	9591
A14-15	198	2.62	1.13	4	0.859	9776
A14-15	198	2.94	1.23	4	0.898	10703
A14-15	198	3.27	1.13	4	0.859	9456
A14-15	198	3.60	1.13	4	0.859	10067
A14-15	198	3.92	1.13	4	0.859	9412
A14-15	198	4.23	1.13	4	0.859	8700
A14-15	199	0.08	1.13	2	0.859	10234
A14-15	199	0.42	1.23	2	0.898	9759
A14-15	199	0.76	1.03	2	0.82	9403
A14-15	199	1.08	1.23	2	0.898	9377
A14-15	199	1.38	1.13	2	0.859	9077
A14-15	199	1.71	1.23	2	0.898	9597
A14-15	199	2.01	1.13	2	0.859	9399

A14-15	199	2.34	1.13	2	0.859	9211
A14-15	199	2.64	1.13	2	0.859	9292
A14-15	199	2.97	1.13	2	0.859	10504
A14-15	199	3.29	1.13	2	0.859	10672
A14-15	199	3.62	0.91	2	0.781	9896
A14-15	199	3.94	1.13	2	0.859	10335
A14-15	199	4.24	1.13	2	0.859	10057
A14-15	199	4.53	1.23	2	0.898	10298
A15-16	200	0.18	0.91	6	0.781	12398
A15-16	200	0.48	1.03	6	0.82	10607
A15-16	200	0.80	1.03	6	0.82	10463
A15-16	200	1.11	1.03	6	0.82	11893
A15-16	200	1.45	1.03	6	0.82	11065
A15-16	200	1.78	1.03	6	0.82	12048
A15-16	200	2.11	1.03	6	0.82	11195
A15-16	200	2.43	1.03	6	0.82	10735
A15-16	200	2.76	1.03	6	0.82	11243
A15-16	200	3.11	0.65	6	0.703	8857
A15-16	200	3.43	1.03	6	0.82	11105
A15-16	200	3.72	1.03	6	0.82	11663
A15-16	200	3.99	1.03	6	0.82	11023
A15-16	200	4.29	1.03	6	0.82	11654
A15-16	200	4.71	1.03	6	0.82	9816
A15-16	200	4.99	1.03	6	0.82	11496
A15-16	200	5.29	1.03	6	0.82	10763
A15-16	200	5.60	1.03	6	0.82	11056
A15-16	200	5.92	1.03	6	0.82	11104
A15-16	200	6.22	0.79	6	0.742	9660
A15-16	200	6.55	1.03	6	0.82	11684
A15-16	200	6.88	1.03	6	0.82	10944
A15-16	201	0.17	1.03	4	0.82	12469
A15-16	201	0.47	1.13	4	0.859	12089
A15-16	201	0.78	1.13	4	0.859	11620
A15-16	201	1.11	1.13	4	0.859	11984
A15-16	201	1.41	1.23	4	0.898	9616
A15-16	201	1.70	1.13	4	0.859	10692
A15-16	201	2.01	1.13	4	0.859	11471
A15-16	201	2.34	1.13	4	0.859	11486
A15-16	201	2.64	1.13	4	0.859	11719
A15-16	201	3.03	0.91	4	0.781	10184
A15-16	201	3.33	1.13	4	0.859	12694
A15-16	201	3.66	1.13	4	0.859	11872
A15-16	201	3.97	1.13	4	0.859	11918
A15-16	201	4.29	1.13	4	0.859	11692
A15-16	201	4.62	1.13	4	0.859	11860
A15-16	201	4.95	1.13	4	0.859	11135
A15-16	201	5.27	1.13	4	0.859	10517

A15-16	201	5.60	1.13	4	0.859	11709
A15-16	201	5.92	1.13	4	0.859	11664
A15-16	201	6.23	1.03	4	0.82	11488
A15-16	201	6.57	1.13	4	0.859	11560
A15-16	201	6.87	1.13	4	0.859	9282
A15-16	202	0.27	1.03	2	0.82	11923
A15-16	202	0.57	1.13	2	0.859	9815
A15-16	202	0.90	1.13	2	0.859	10725
A15-16	202	1.25	1.13	2	0.859	11988
A15-16	202	1.56	1.23	2	0.898	12080
A15-16	202	1.90	1.13	2	0.859	10945
A15-16	202	2.23	1.13	2	0.859	12437
A15-16	202	2.54	1.23	2	0.898	12108
A15-16	202	2.86	1.13	2	0.859	11299
A15-16	202	3.18	0.79	2	0.742	9438
A15-16	202	3.49	1.23	2	0.898	12488
A15-16	202	3.79	1.13	2	0.859	11682
A15-16	202	4.12	1.23	2	0.898	11815
A15-16	202	4.46	1.23	2	0.898	12061
A15-16	202	4.77	1.13	2	0.859	11220
A15-16	202	5.10	1.13	2	0.859	12266
A15-16	202	5.42	1.13	2	0.859	11949
A15-16	202	5.77	1.13	2	0.859	11533
A15-16	202	6.09	1.13	2	0.859	10615
A15-16	202	6.40	1.03	2	0.82	12971
A15-16	202	6.75	1.23	2	0.898	11656
B15-16	203	0.05	1.43	6	0.977	7458
B15-16	203	0.38	1.43	6	0.977	8751
B15-16	203	0.71	1.33	6	0.938	8360
B15-16	203	0.98	1.33	6	0.938	10853
B15-16	203	1.26	1.33	6	0.938	9354
B15-16	203	1.58	1.33	6	0.938	9912
B15-16	203	1.91	1.33	6	0.938	10358
B15-16	203	2.24	1.33	6	0.938	11466
B15-16	203	2.56	1.33	6	0.938	11807
B15-16	203	2.88	1.33	6	0.938	11150
B15-16	203	3.21	1.33	6	0.938	12567
B15-16	203	3.94	1.33	6	0.938	11563
B15-16	203	4.24	1.43	6	0.977	12423
B15-16	203	4.74	1.43	6	0.977	5222
B15-16	203	5.09	1.33	6	0.938	4895
B15-16	203	5.37	1.33	6	0.938	9362
B15-16	203	5.70	1.33	6	0.938	6935
B15-16	203	6.00	1.23	6	0.898	7484
B15-16	203	6.32	1.33	6	0.938	8579
B15-16	203	6.62	1.23	6	0.898	7621
B15-16	204	0.22	1.13	4	0.859	8142

B15-16	204	0.50	1.13	4	0.859	9890
B15-16	204	0.86	1.13	4	0.859	10792
B15-16	204	1.25	1.13	4	0.859	10262
B15-16	204	1.53	1.23	4	0.898	9099
B15-16	204	1.85	1.13	4	0.859	9330
B15-16	204	2.16	1.13	4	0.859	8163
B15-16	204	2.48	1.23	4	0.898	9202
B15-16	204	2.81	1.13	4	0.859	8667
B15-16	204	3.14	1.13	4	0.859	6460
B15-16	204	3.39	1.13	4	0.859	9325
B15-16	204	3.71	1.23	4	0.898	4714
B15-16	204	4.04	1.13	4	0.859	7413
B15-16	204	4.36	1.13	4	0.859	9848
B15-16	204	4.67	1.13	4	0.859	8807
B15-16	204	4.99	1.13	4	0.859	10129
B15-16	204	5.30	1.13	4	0.859	9996
B15-16	204	5.62	1.13	4	0.859	8665
B15-16	204	5.94	1.23	4	0.898	6711
B15-16	204	6.25	1.13	4	0.859	7277
B15-16	204	6.58	1.13	4	0.859	9391
B15-16	204	6.90	1.13	4	0.859	9257
B15-16	204	7.22	1.13	4	0.859	7928
B15-16	205	0.18	1.13	2	0.859	8687
B15-16	205	0.53	1.03	2	0.82	9185
B15-16	205	0.85	1.23	2	0.898	8375
B15-16	205	1.15	1.23	2	0.898	7165
B15-16	205	1.46	1.23	2	0.898	8802
B15-16	205	1.80	1.23	2	0.898	6792
B15-16	205	2.11	1.13	2	0.859	5920
B15-16	205	2.43	1.13	2	0.859	8221
B15-16	205	2.76	1.13	2	0.859	3798
B15-16	205	3.08	1.23	2	0.898	4200
B15-16	205	3.39	0.79	2	0.742	4498
B15-16	205	3.71	1.23	2	0.898	5504
B15-16	205	4.01	1.13	2	0.859	8764
B15-16	205	4.34	1.13	2	0.859	8581
B15-16	205	4.66	1.23	2	0.898	7433
B15-16	205	4.97	1.23	2	0.898	5802
B15-16	205	5.30	1.23	2	0.898	5089
B15-16	205	5.62	1.23	2	0.898	5767
B15-16	205	5.94	1.23	2	0.898	6994
B15-16	205	6.24	1.23	2	0.898	6993
B15-16	205	6.57	0.91	2	0.781	9971
B15-16	205	6.88	1.13	2	0.859	7591
B15-16	205	7.23	1.13	2	0.859	8014
B14-13	206	0.18	1.13	6	0.859	10497
B14-13	206	0.48	1.23	6	0.898	10057

B14-13	206	0.83	1.13	6	0.859	10325
B14-13	206	1.13	1.23	6	0.898	10322
B14-13	206	1.45	1.23	6	0.898	8490
B14-13	206	1.76	1.13	6	0.859	10016
B14-13	206	2.08	1.23	6	0.898	9867
B14-13	206	2.38	1.23	6	0.898	10301
B14-13	206	2.68	1.23	6	0.898	10798
B14-13	206	2.99	1.13	6	0.859	10969
B14-13	206	3.29	1.13	6	0.859	10668
B14-13	206	3.61	1.13	6	0.859	10029
B14-13	206	3.94	1.13	6	0.859	10442
B14-13	206	4.26	1.13	6	0.859	10397
B14-13	206	4.59	1.13	6	0.859	11109
B14-13	206	4.92	1.13	6	0.859	12030
B14-13	206	5.25	1.13	6	0.859	9511
B14-13	206	5.57	1.13	6	0.859	10998
B14-13	206	5.87	1.13	6	0.859	11483
B14-13	206	6.17	1.13	6	0.859	11110
B14-13	206	6.49	1.13	6	0.859	10839
B14-13	206	6.82	1.13	6	0.859	11480
B14-13	206	7.17	1.23	6	0.898	9035
B14-13	207	0.08	1.13	4	0.859	11715
B14-13	207	0.40	1.13	4	0.859	10307
B14-13	207	0.76	0.91	4	0.781	10096
B14-13	207	1.06	1.03	4	0.82	10861
B14-13	207	1.38	1.13	4	0.859	10804
B14-13	207	1.70	1.13	4	0.859	11523
B14-13	207	2.03	1.13	4	0.859	12494
B14-13	207	2.34	1.13	4	0.859	11475
B14-13	207	2.86	1.13	4	0.859	11467
B14-13	207	3.18	1.03	4	0.82	11282
B14-13	207	3.49	1.13	4	0.859	11366
B14-13	207	3.79	0.91	4	0.781	11807
B14-13	207	4.04	1.03	4	0.82	10900
B14-13	207	4.37	1.03	4	0.82	11815
B14-13	207	4.69	1.03	4	0.82	12101
B14-13	207	5.01	1.03	4	0.82	11042
B14-13	207	5.34	1.03	4	0.82	11887
B14-13	207	5.64	1.03	4	0.82	11921
B14-13	207	5.95	1.03	4	0.82	10974
B14-13	207	6.27	1.03	4	0.82	10754
B14-13	207	6.58	0.91	4	0.781	12036
B14-13	207	6.90	1.03	4	0.82	10556
B14-13	207	7.20	1.03	4	0.82	10085
B14-13	208	0.05	1.13	2	0.859	11665
B14-13	208	0.42	1.13	2	0.859	11894
B14-13	208	0.75	0.91	2	0.781	7842

B14-13	208	1.05	1.13	2	0.859	9135
B14-13	208	1.35	1.13	2	0.859	9491
B14-13	208	1.68	1.13	2	0.859	10294
B14-13	208	2.00	1.13	2	0.859	9753
B14-13	208	2.31	1.13	2	0.859	10176
B14-13	208	2.61	1.13	2	0.859	9118
B14-13	208	2.93	1.23	2	0.898	4680
B14-13	208	3.28	1.13	2	0.859	9978
B14-13	208	3.61	1.13	2	0.859	7302
B14-13	208	3.91	1.03	2	0.82	9116
B14-13	208	4.22	1.13	2	0.859	8899
B14-13	208	4.56	1.13	2	0.859	7168
B14-13	208	4.86	1.13	2	0.859	9905
B14-13	208	5.16	1.13	2	0.859	8612
B14-13	208	5.50	1.13	2	0.859	7039
B14-13	208	5.80	1.13	2	0.859	10313
B14-13	208	6.14	1.13	2	0.859	8169
B14-13	208	6.44	1.13	2	0.859	7744
B14-13	208	6.75	1.03	2	0.82	11580
B14-13	208	7.08	1.13	2	0.859	8603
B14-13	208	7.37	1.13	2	0.859	9939
B13-12	209	0.32	1.23	6	0.898	15949
B13-12	209	0.65	1.13	6	0.859	15872
B13-12	209	0.98	1.13	6	0.859	14422
B13-12	209	1.31	1.13	6	0.859	14931
B13-12	209	1.63	1.13	6	0.859	14471
B13-12	209	1.96	1.13	6	0.859	13790
B13-12	209	2.31	1.13	6	0.859	15362
B13-12	209	2.63	1.13	6	0.859	15065
B13-12	209	2.94	1.13	6	0.859	15934
B13-12	209	3.26	1.13	6	0.859	12444
B13-12	209	3.59	1.23	6	0.898	9694
B13-12	209	3.91	1.13	6	0.859	12848
B13-12	209	4.24	1.23	6	0.898	13042
B13-12	209	4.57	1.23	6	0.898	15664
B13-12	209	4.87	1.23	6	0.898	14309
B13-12	209	5.22	1.23	6	0.898	14386
B13-12	209	5.53	1.33	6	0.938	17321
B13-12	209	5.83	1.23	6	0.898	16630
B13-12	210	0.40	1.61	4	1.055	11227
B13-12	210	0.70	1.52	4	1.016	10218
B13-12	210	1.05	1.52	4	1.016	11671
B13-12	210	1.34	1.52	4	1.016	11597
B13-12	210	1.68	1.52	4	1.016	11646
B13-12	210	2.04	1.61	4	1.055	9565
B13-12	210	2.52	1.61	4	1.055	8468
B13-12	210	2.82	1.61	4	1.055	8109

B13-12	210	3.14	1.61	4	1.055	8690
B13-12	210	3.45	1.52	4	1.016	8733
B13-12	210	3.74	1.61	4	1.055	7221
B13-12	210	3.97	1.61	4	1.055	8645
B13-12	211	0.12	1.33	2	0.938	9108
B13-12	211	0.52	1.43	2	0.977	9335
B13-12	211	0.78	1.43	2	0.977	10748
B13-12	211	1.03	1.43	2	0.977	7123
B13-12	211	1.28	1.43	2	0.977	6498
B13-12	211	1.59	1.43	2	0.977	7457
B13-12	211	1.86	1.43	2	0.977	9797
B13-12	211	2.13	1.43	2	0.977	8873
B13-12	211	2.44	1.43	2	0.977	9730
B13-12	211	2.89	1.43	2	0.977	9103
B13-12	211	3.21	1.43	2	0.977	7316
B13-12	211	3.51	1.43	2	0.977	5359
B13-12	211	3.82	1.43	2	0.977	7177
B13-12	211	4.14	1.43	2	0.977	4576
B13-12	211	4.40	1.52	2	1.016	10501
B13-12	211	4.65	1.43	2	0.977	9251
B13-12	211	4.95	1.33	2	0.938	6368
C13-12	212	0.37	1.43	2	0.977	4581
C13-12	212	0.61	1.52	2	1.016	6647
C13-12	212	0.86	1.52	2	1.016	7288
C13-12	212	1.16	1.52	2	1.016	6994
C13-12	212	1.40	1.52	2	1.016	6811
C13-12	212	1.63	1.52	2	1.016	6398
C13-12	212	1.96	1.52	2	1.016	7528
C13-12	212	2.23	1.43	2	0.977	8171
C13-12	212	2.46	1.61	2	1.055	7541
C13-12	212	2.72	1.61	2	1.055	6162
C13-12	212	3.04	1.61	2	1.055	7661
C13-12	212	3.34	1.61	2	1.055	7687
C13-12	212	3.67	1.61	2	1.055	5975
C13-12	212	4.27	1.61	2	1.055	7200
C13-12	212	4.57	1.61	2	1.055	6672
C13-12	212	4.75	1.43	2	0.977	6467
C13-12	213	0.03	1.61	4	1.055	4054
C13-12	213	0.40	1.52	4	1.016	3787
C13-12	213	0.73	1.52	4	1.016	3767
C13-12	213	1.03	1.52	4	1.016	4435
C13-12	213	1.33	1.61	4	1.055	3005
C13-12	213	1.65	1.52	4	1.016	8401
C13-12	213	1.98	1.52	4	1.016	9373
C13-12	213	2.28	1.52	4	1.016	8752
C13-12	213	2.64	1.52	4	1.016	8622
C13-12	213	2.94	1.52	4	1.016	9385

C13-12	213	3.26	1.52	4	1.016	8623
C13-12	213	3.59	1.52	4	1.016	8856
C13-12	213	3.92	1.61	4	1.055	8686
C13-12	213	4.22	1.61	4	1.055	6386
C13-12	213	4.54	1.61	4	1.055	6151
C13-12	213	4.84	1.61	4	1.055	3646
C13-12	213	5.19	1.70	4	1.094	3986
C13-12	213	5.45	1.61	4	1.055	7284
C13-12	213	5.77	1.43	4	0.977	6053
C13-12	214	0.28	1.43	6	0.977	8851
C13-12	214	0.56	1.52	6	1.016	6788
C13-12	214	0.86	1.52	6	1.016	8489
C13-12	214	1.10	1.52	6	1.016	9013
C13-12	214	1.35	1.43	6	0.977	7393
C13-12	214	1.65	1.43	6	0.977	7632
C13-12	214	1.93	1.52	6	1.016	8429
C13-12	214	2.21	1.52	6	1.016	9104
C13-12	214	2.56	1.43	6	0.977	9873
C13-12	214	2.92	1.43	6	0.977	11050
C13-12	214	3.21	1.43	6	0.977	9170
C13-12	214	3.59	1.52	6	1.016	8973
C13-12	214	3.87	1.52	6	1.016	7258
C13-12	214	4.19	1.52	6	1.016	9109
C13-12	214	4.44	1.43	6	0.977	9957
C13-12	214	4.74	1.52	6	1.016	6358
C13-12	214	5.07	1.43	6	0.977	5652
C13-12	214	5.35	1.52	6	1.016	4002
C13-14	215	0.38	1.43	2	0.977	4262
C13-14	215	0.66	1.61	2	1.055	3022
C13-14	215	0.86	1.52	2	1.016	2987
C13-14	215	1.18	1.61	2	1.055	2812
C13-14	215	1.48	1.61	2	1.055	3451
C13-14	215	1.73	1.52	2	1.016	6838
C13-14	215	1.99	1.52	2	1.016	7267
C13-14	215	2.33	1.52	2	1.016	7797
C13-14	215	2.63	1.52	2	1.016	7741
C13-14	215	2.92	1.52	2	1.016	7676
C13-14	215	3.19	1.33	2	0.938	7587
C13-14	215	3.46	1.52	2	1.016	7791
C13-14	215	3.77	1.52	2	1.016	7272
C13-14	215	4.02	1.52	2	1.016	6437
C13-14	215	4.25	1.52	2	1.016	6363
C13-14	215	4.47	1.52	2	1.016	6007
C13-14	215	4.89	1.52	2	1.016	5133
C13-14	216	0.27	1.23	4	0.898	6166
C13-14	216	0.58	1.43	4	0.977	6219
C13-14	216	0.81	1.43	4	0.977	7889

C13-14	216	1.08	1.43	4	0.977	5589
C13-14	216	1.38	1.43	4	0.977	5242
C13-14	216	1.70	1.43	4	0.977	5895
C13-14	216	2.01	1.43	4	0.977	5313
C13-14	216	2.33	1.43	4	0.977	4563
C13-14	216	2.63	1.43	4	0.977	6758
C13-14	216	2.92	1.43	4	0.977	5171
C13-14	216	3.24	1.23	4	0.898	7010
C13-14	216	3.56	1.43	4	0.977	6874
C13-14	216	3.86	1.43	4	0.977	6817
C13-14	216	4.15	1.43	4	0.977	6552
C13-14	216	4.42	1.43	4	0.977	6583
C13-14	216	4.74	1.43	4	0.977	5223
C13-14	216	5.00	1.43	4	0.977	6085
C13-14	216	5.23	1.43	4	0.977	5620
C13-14	216	5.53	1.33	4	0.938	5048
C13-14	217	1.75	1.52	6	1.016	4192
C13-14	217	2.01	1.52	6	1.016	7190
C13-14	217	2.28	1.52	6	1.016	5218
C13-14	217	2.63	1.52	6	1.016	6966
C13-14	217	2.93	1.52	6	1.016	6576
C13-14	217	3.28	1.52	6	1.016	5927
C13-14	217	3.63	1.43	6	0.977	6819
C13-14	217	3.96	1.52	6	1.016	4862
C13-14	217	4.27	1.52	6	1.016	6021
C13-14	217	4.56	1.52	6	1.016	6186
C13-14	217	4.92	1.52	6	1.016	3355
C13-14	217	5.20	1.52	6	1.016	4716
C13-14	217	5.54	1.52	6	1.016	4040
C13-14	217	5.89	1.61	6	1.055	2115
C13-14	217	6.19	1.52	6	1.016	5920
C13-14	217	6.44	1.43	6	0.977	4869
C13-14	217	6.72	1.52	6	1.016	3522
C13-14	217	7.07	1.52	6	1.016	2524
C15-16	218	0.18	1.43	2	0.977	3083
C15-16	218	0.81	1.52	2	1.016	4098
C15-16	218	1.11	1.61	2	1.055	4904
C15-16	218	1.38	1.52	2	1.016	5479
C15-16	218	1.61	1.52	2	1.016	4310
C15-16	218	2.23	1.43	2	0.977	8601
C15-16	218	2.49	1.52	2	1.016	10258
C15-16	218	2.79	1.52	2	1.016	9869
C15-16	218	3.02	1.52	2	1.016	9606
C15-16	218	3.34	1.52	2	1.016	9396
C15-16	218	3.66	1.52	2	1.016	7513
C15-16	218	3.91	1.52	2	1.016	8680
C15-16	218	4.24	1.52	2	1.016	8380

C15-16	218	4.55	1.52	2	1.016	8121
C15-16	218	5.04	1.43	2	0.977	9120
C15-16	218	5.37	1.61	2	1.055	6089
C15-16	218	5.70	1.43	2	0.977	7674
C15-16	219	0.15	1.61	4	1.055	3757
C15-16	219	0.43	1.70	4	1.094	3172
C15-16	219	0.68	1.61	4	1.055	5420
C15-16	219	0.88	1.70	4	1.094	3897
C15-16	219	1.11	1.61	4	1.055	4046
C15-16	219	1.66	1.61	4	1.055	5114
C15-16	219	1.99	1.61	4	1.055	5409
C15-16	219	2.29	1.61	4	1.055	6820
C15-16	219	2.59	1.61	4	1.055	6055
C15-16	219	2.93	1.61	4	1.055	6228
C15-16	219	3.19	1.61	4	1.055	7190
C15-16	219	3.46	1.61	4	1.055	6430
C15-16	219	3.77	1.61	4	1.055	6341
C15-16	219	4.11	1.61	4	1.055	5565
C15-16	219	4.42	1.61	4	1.055	5130
C15-16	219	4.72	1.70	4	1.094	2825
C15-16	219	5.04	1.70	4	1.094	2416
C15-16	219	5.37	1.87	4	1.172	1609
C15-16	219	5.70	1.87	4	1.172	1991
C15-16	220	0.40	2.37	6	1.406	2702
C15-16	220	1.75	2.29	6	1.367	1796
C15-16	220	2.33	2.29	6	1.367	2128
C15-16	220	2.74	1.96	6	1.211	1430
C15-16	220	3.66	1.78	6	1.133	1676
C15-16	220	3.99	1.78	6	1.133	1405
C15-16	220	4.27	1.70	6	1.094	2941
C15-16	220	4.61	1.78	6	1.133	1374
C15-16	220	5.24	1.87	6	1.172	1563
C15-16	220	5.85	1.87	6	1.172	1730
C15-16	220	6.15	2.12	6	1.289	1320
C15-16	220	6.40	2.29	6	1.367	1987
D15-16	221	0.37	1.43	6	0.977	3094
D15-16	221	0.68	1.43	6	0.977	2550
D15-16	221	0.98	1.52	6	1.016	1977
D15-16	221	1.33	1.52	6	1.016	3873
D15-16	221	1.63	1.43	6	0.977	3026
D15-16	221	1.88	1.52	6	1.016	2819
D15-16	221	2.11	1.43	6	0.977	3936
D15-16	221	2.46	1.43	6	0.977	4541
D15-16	221	2.78	1.43	6	0.977	5066
D15-16	221	3.09	1.43	6	0.977	4945
D15-16	221	3.38	1.23	6	0.898	4026
D15-16	221	3.66	1.43	6	0.977	5082

D15-16	221	3.97	1.43	6	0.977	4601
D15-16	221	4.24	1.43	6	0.977	5235
D15-16	221	4.52	1.43	6	0.977	4310
D15-16	221	4.84	1.43	6	0.977	4504
D15-16	221	5.10	1.43	6	0.977	5409
D15-16	221	5.42	1.43	6	0.977	3809
D15-16	221	5.77	1.52	6	1.016	4008
D15-16	221	6.02	1.33	6	0.938	4143
D15-16	221	6.43	1.52	6	1.016	2404
D15-16	222	0.28	1.03	4	0.82	3967
D15-16	222	0.63	1.23	4	0.898	3442
D15-16	222	0.91	1.23	4	0.898	3977
D15-16	222	1.20	1.23	4	0.898	4184
D15-16	222	1.41	1.23	4	0.898	4221
D15-16	222	1.71	1.23	4	0.898	3668
D15-16	222	1.96	1.23	4	0.898	4988
D15-16	222	2.31	1.23	4	0.898	3574
D15-16	222	2.58	1.33	4	0.938	2211
D15-16	222	2.79	1.03	4	0.82	4596
D15-16	222	3.08	1.13	4	0.859	5159
D15-16	222	3.41	1.23	4	0.898	5777
D15-16	222	3.72	1.23	4	0.898	4416
D15-16	222	4.06	1.23	4	0.898	3985
D15-16	222	4.36	1.23	4	0.898	3957
D15-16	222	4.69	1.23	4	0.898	3110
D15-16	222	5.00	1.23	4	0.898	2223
D15-16	222	5.02	1.23	4	0.898	2078
D15-16	222	5.29	1.13	4	0.859	4281
D15-16	222	5.65	1.03	4	0.82	2307
D15-16	222	6.22	1.13	4	0.859	4160
D15-16	223	0.23	1.43	2	0.977	1997
D15-16	223	2.81	1.43	2	0.977	2041
D15-16	223	3.09	1.43	2	0.977	5012
D15-16	223	3.39	1.33	2	0.938	4353
D15-16	223	3.74	1.43	2	0.977	4734
D15-16	223	4.06	1.43	2	0.977	5237
D15-16	223	4.37	1.43	2	0.977	3991
D15-16	223	4.39	1.43	2	0.977	3927
D15-16	223	4.69	1.43	2	0.977	3651
D15-16	223	4.90	1.43	2	0.977	2932
D15-16	223	5.17	1.43	2	0.977	2523
D15-16	223	5.50	1.43	2	0.977	2357
D15-16	223	5.82	1.43	2	0.977	3560
D15-16	223	6.15	1.43	2	0.977	2978
D15-16	223	6.45	1.43	2	0.977	2588
D15-16	223	6.75	1.43	2	0.977	2228
D13-14	224	0.35	1.33	2	0.938	3892

D13-14	224	0.63	1.52	2	1.016	2741
D13-14	224	0.88	1.52	2	1.016	3257
D13-14	224	1.51	1.52	2	1.016	4315
D13-14	224	1.83	1.52	2	1.016	4374
D13-14	224	2.13	1.52	2	1.016	4595
D13-14	224	2.51	1.52	2	1.016	5058
D13-14	224	2.84	1.33	2	0.938	4088
D13-14	224	3.14	1.52	2	1.016	3169
D13-14	224	3.44	1.52	2	1.016	3940
D13-14	224	3.74	1.43	2	0.977	6125
D13-14	224	4.09	1.43	2	0.977	5635
D13-14	224	4.39	1.43	2	0.977	7131
D13-14	224	4.69	1.43	2	0.977	6610
D13-14	224	4.95	1.43	2	0.977	5805
D13-14	224	5.25	1.52	2	1.016	4789
D13-14	224	5.55	1.52	2	1.016	5000
D13-14	224	5.89	1.33	2	0.938	5096
D13-14	224	6.22	1.52	2	1.016	3800
D13-14	224	6.52	1.52	2	1.016	4492
D13-14	225	0.91	1.70	4	1.094	3792
D13-14	225	1.21	1.61	4	1.055	3667
D13-14	225	1.51	1.61	4	1.055	5089
D13-14	225	1.83	1.52	4	1.016	5846
D13-14	225	2.14	1.52	4	1.016	5551
D13-14	225	2.44	1.52	4	1.016	5260
D13-14	225	2.79	1.43	4	0.977	4307
D13-14	225	3.11	1.61	4	1.055	3619
D13-14	225	3.41	1.52	4	1.016	4059
D13-14	225	3.72	1.61	4	1.055	3875
D13-14	225	4.02	1.52	4	1.016	3723
D13-14	225	4.37	1.52	4	1.016	4283
D13-14	225	4.67	1.61	4	1.055	4102
D13-14	225	5.00	1.61	4	1.055	3407
D13-14	225	5.30	1.61	4	1.055	3756
D13-14	225	5.62	1.61	4	1.055	3526
D13-14	225	5.94	1.52	4	1.016	3928
D13-14	225	6.25	1.61	4	1.055	2892
D13-14	225	6.58	1.61	4	1.055	2523
D13-14	226	0.07	1.33	6	0.938	7765
D13-14	226	0.38	1.23	6	0.898	6452
D13-14	226	0.71	1.33	6	0.938	7162
D13-14	226	1.03	1.33	6	0.938	8023
D13-14	226	1.35	1.33	6	0.938	6224
D13-14	226	1.68	1.33	6	0.938	5043
D13-14	226	2.01	1.33	6	0.938	6587
D13-14	226	2.28	1.33	6	0.938	5671
D13-14	226	2.53	1.33	6	0.938	5133

D13-14	226	2.84	1.23	6	0.898	4935
D13-14	226	3.16	1.13	6	0.859	6157
D13-14	226	3.44	1.23	6	0.898	5131
D13-14	226	3.77	1.23	6	0.898	3821
D13-14	226	4.07	1.33	6	0.938	3654
D13-14	226	4.37	1.23	6	0.898	3757
D13-14	226	4.69	1.23	6	0.898	5426
D13-14	226	4.97	1.23	6	0.898	5800
D13-14	226	5.30	1.33	6	0.938	4838
D13-14	226	5.64	1.33	6	0.938	4986
D13-14	226	5.92	1.33	6	0.938	4122
D13-14	226	6.24	1.03	6	0.82	3217
D13-14	226	6.58	1.33	6	0.938	3778
D13-14	226	6.90	1.33	6	0.938	3548
D13-12	227	0.25	1.52	6	1.016	3146
D13-12	227	0.58	1.52	6	1.016	4003
D13-12	227	0.90	1.52	6	1.016	5129
D13-12	227	1.25	1.43	6	0.977	3654
D13-12	227	1.56	1.43	6	0.977	4717
D13-12	227	1.84	1.52	6	1.016	8293
D13-12	227	2.13	1.43	6	0.977	7849
D13-12	227	2.44	1.43	6	0.977	6503
D13-12	227	2.79	1.43	6	0.977	6556
D13-12	227	3.14	1.43	6	0.977	4731
D13-12	227	3.44	1.52	6	1.016	3140
D13-12	227	3.77	1.52	6	1.016	7824
D13-12	227	4.07	1.52	6	1.016	4326
D13-12	227	4.37	1.52	6	1.016	3304
D13-12	227	4.73	1.70	6	1.094	2387
D13-12	228	0.30	1.23	4	0.898	5104
D13-12	228	0.56	1.33	4	0.938	4522
D13-12	228	0.88	1.33	4	0.938	4948
D13-12	228	1.21	1.33	4	0.938	4679
D13-12	228	1.53	1.33	4	0.938	3065
D13-12	228	1.86	1.33	4	0.938	2768
D13-12	228	2.19	1.33	4	0.938	3610
D13-12	228	2.51	1.33	4	0.938	5190
D13-12	228	2.81	1.33	4	0.938	6446
D13-12	228	3.11	1.33	4	0.938	7062
D13-12	228	3.44	1.23	4	0.898	6894
D13-12	228	3.74	1.33	4	0.938	5954
D13-12	228	4.05	1.33	4	0.938	4723
D13-12	228	4.35	1.33	4	0.938	4761
D13-12	228	4.65	1.33	4	0.938	4951
D13-12	228	4.98	1.43	4	0.977	4630
D13-12	229	0.52	1.61	2	1.055	2852
D13-12	229	0.95	1.43	2	0.977	2261

D13-12	229	1.55	1.52	2	1.016	4762
D13-12	229	1.85	1.52	2	1.016	4529
D13-12	229	2.16	1.52	2	1.016	5145
D13-12	229	2.49	1.52	2	1.016	5030
D13-12	229	2.81	1.52	2	1.016	5960
D13-12	229	3.12	1.33	2	0.938	5021
D13-12	229	3.46	1.52	2	1.016	4462
D13-12	229	3.79	1.52	2	1.016	4418
D13-12	229	4.11	1.52	2	1.016	4635
D13-12	229	4.42	1.61	2	1.055	3330
D13-12	229	4.70	1.61	2	1.055	4633
D13-12	229	4.97	1.61	2	1.055	3702
D13-12	229	5.29	1.52	2	1.016	3625
D13-12	229	5.57	1.61	2	1.055	5042
D13-12	229	5.87	1.61	2	1.055	3940
D13-12	229	6.15	1.52	2	1.016	4205

File Number	Distance X (ft)	Depth (in)	Distance Y (ft)	Time (ns)	Amplitude (dB)
2	1.09	3.454	0	1.945	9481
2	2.29	3.592	0	2.016	9764
2	3.6	3.822	0	2.133	9749
2	4.74	3.959	0	2.203	10415
2	6.06	4.095	0	2.273	8949
2	7.31	4.004	0	2.227	9337
2	8.54	3.959	0	2.203	11015
2	9.79	3.867	0	2.156	10265
2	11.02	3.867	0	2.156	9396
2	12.29	3.822	0	2.133	10976
2	13.52	3.822	0	2.133	10623
2	13.53	3.822	0	2.133	10757
2	14.76	3.684	0	2.063	9462
2	16	3.638	0	2.039	9756
2	17.18	3.684	0	2.063	9482
2	18.47	3.592	0	2.016	10254
2	19.78	3.959	0	2.203	8267
2	20.97	3.684	0	2.063	9891
2	22.23	3.73	0	2.086	10292
2	23.48	3.684	0	2.063	9676
2	24.76	3.73	0	2.086	10285
2	26.04	3.638	0	2.039	9939
2	27.26	3.592	0	2.016	10002
2	28.43	3.638	0	2.039	9429
2	29.64	3.592	0	2.016	9601
2	30.91	3.73	0	2.086	8929
2	32.18	3.867	0	2.156	9711
2	33.4	3.959	0	2.203	8355
2	34.62	4.095	0	2.273	7542
2	35.89	3.822	0	2.133	8445
2	37.11	3.73	0	2.086	7347
2	38.4	3.867	0	2.156	5828
3	1.11	3.408	2	1.922	7802
3	2.44	3.5	2	1.969	8723
3	3.67	3.638	2	2.039	8657
3	4.85	3.959	2	2.203	9460
3	6.1	3.913	2	2.18	10665
3	7.35	3.959	2	2.203	10268
3	8.6	3.822	2	2.133	9521
3	9.86	3.776	2	2.109	10727
3	11.06	3.73	2	2.086	9541
3	12.35	3.776	2	2.109	9758
3	13.56	3.776	2	2.109	9828
3	14.87	3.867	2	2.156	9537
3	16.15	3.684	2	2.063	9602
3	17.47	3.684	2	2.063	9827

3	18.67	3.684	2	2.063	9287
3	19.87	3.73	2	2.086	8022
3	21.19	3.592	2	2.016	9485
3	22.52	3.546	2	1.992	9465
3	23.64	3.5	2	1.969	8743
3	24.88	3.546	2	1.992	9842
3	26.1	3.546	2	1.992	9476
3	27.29	3.408	2	1.922	9270
3	28.59	3.546	2	1.992	8812
3	29.79	3.546	2	1.992	9182
3	31.02	3.684	2	2.063	9269
3	32.3	3.822	2	2.133	8340
3	33.55	3.913	2	2.18	7306
3	34.83	3.913	2	2.18	8130
3	36.01	3.959	2	2.203	7704
3	37.32	3.546	2	1.992	8310
3	38.54	3.638	2	2.039	8038
4	1.11	3.408	4	1.922	8735
4	2.33	3.684	4	2.063	8160
4	3.64	3.776	4	2.109	7779
4	4.85	3.73	4	2.086	8514
4	6.08	3.867	4	2.156	9104
4	7.31	3.73	4	2.086	8291
4	8.56	3.684	4	2.063	8259
4	9.82	3.592	4	2.016	9354
4	11.02	3.638	4	2.039	9510
4	12.36	3.73	4	2.086	9287
4	13.54	3.776	4	2.109	8616
4	14.8	3.73	4	2.086	8396
4	14.81	3.73	4	2.086	8308
4	16.07	3.684	4	2.063	9578
4	17.15	3.592	4	2.016	9239
4	18.49	3.546	4	1.992	9200
4	19.81	3.638	4	2.039	8296
4	21.02	3.546	4	1.992	8226
4	22.23	3.5	4	1.969	8293
4	23.53	3.408	4	1.922	8903
4	24.8	3.454	4	1.945	7858
4	26.06	3.362	4	1.898	8726
4	27.24	3.362	4	1.898	8454
4	28.53	3.408	4	1.922	9195
4	29.72	3.5	4	1.969	8613
4	31	3.592	4	2.016	8627
4	32.24	3.73	4	2.086	8333
4	33.46	3.776	4	2.109	8179
4	34.76	3.822	4	2.133	8525
4	35.96	3.684	4	2.063	8043

4	37.16	3.73	4	2.086	7983
4	38.47	3.5	4	1.969	6791
5	1.11	3.5	6	1.969	7070
5	2.4	3.684	6	2.063	6573
5	3.62	3.822	6	2.133	7375
5	4.85	3.867	6	2.156	7801
5	6.08	3.867	6	2.156	7931
5	7.35	3.822	6	2.133	8817
5	8.59	3.73	6	2.086	9027
5	9.85	3.638	6	2.039	9078
5	11.05	3.638	6	2.039	8177
5	12.35	3.684	6	2.063	7864
5	13.57	3.822	6	2.133	8845
5	14.82	3.73	6	2.086	8195
5	16.1	3.684	6	2.063	8574
5	17.42	3.638	6	2.039	8744
5	18.63	3.546	6	1.992	8658
5	19.86	3.592	6	2.016	8054
5	21.17	3.546	6	1.992	8380
5	22.49	3.362	6	1.898	7722
5	23.57	3.408	6	1.922	7810
5	24.84	3.454	6	1.945	8027
5	26.07	3.5	6	1.969	8489
5	27.21	3.408	6	1.922	8240
5	28.61	3.546	6	1.992	7698
5	29.78	3.73	6	2.086	7183
5	31.02	4.004	6	2.227	7015
5	32.27	4.095	6	2.273	6580
5	33.5	4.095	6	2.273	5763
5	34.78	4.004	6	2.227	5718
5	36.02	3.913	6	2.18	6398
5	37.28	3.776	6	2.109	6377
5	38.57	3.684	6	2.063	5826
6	1.1	3.592	8	2.016	6329
6	2.33	3.73	8	2.086	5706
6	3.58	3.913	8	2.18	6873
6	4.77	3.913	8	2.18	7114
6	6.08	3.867	8	2.156	6707
6	7.29	3.867	8	2.156	7482
6	8.49	3.867	8	2.156	6535
6	9.76	3.73	8	2.086	7167
6	11	4.05	8	2.25	5746
6	12.39	4.05	8	2.25	5790
6	13.52	4.004	8	2.227	5938
6	14.77	4.004	8	2.227	6541
6	16.1	3.822	8	2.133	6211
6	17.21	3.822	8	2.133	5698

6	18.49	3.73	8	2.086	6615
6	19.76	3.592	8	2.016	7361
6	20.99	3.408	8	1.922	7456
6	22.2	3.362	8	1.898	7818
6	23.49	3.315	8	1.875	7313
6	24.74	3.315	8	1.875	7977
6	25.98	3.315	8	1.875	7850
6	27.2	3.315	8	1.875	8048
6	28.45	3.362	8	1.898	8633
6	29.7	3.408	8	1.922	8267
6	30.95	3.592	8	2.016	8966
6	32.12	3.638	8	2.039	8096
6	33.37	3.822	8	2.133	5517
6	34.62	3.73	8	2.086	6836
6	35.86	3.73	8	2.086	7618
6	37.11	3.5	8	1.969	6933
6	38.41	3.592	8	2.016	6508
7	1.14	3.454	10	1.945	6934
7	2.43	3.592	10	2.016	7653
7	3.67	3.776	10	2.109	8138
7	4.9	3.73	10	2.086	7567
7	6.11	3.73	10	2.086	8171
7	7.38	3.73	10	2.086	7678
7	8.6	3.592	10	2.016	7835
7	9.82	3.5	10	1.969	8272
7	11.1	3.362	10	1.898	7417
7	12.34	3.408	10	1.922	7984
7	13.55	3.454	10	1.945	8271
7	14.81	3.592	10	2.016	7545
7	16.04	3.454	10	1.945	8205
7	17.34	3.454	10	1.945	7547
7	18.55	3.408	10	1.922	8613
7	19.83	3.454	10	1.945	7118
7	21.09	3.315	10	1.875	7763
7	22.36	3.269	10	1.852	8160
7	23.53	3.269	10	1.852	7466
7	24.83	3.315	10	1.875	7851
7	26.1	3.269	10	1.852	7117
7	27.19	3.269	10	1.852	7814
7	28.59	3.315	10	1.875	8065
7	29.8	3.362	10	1.898	7925
7	31.06	3.454	10	1.945	8250
7	32.25	3.592	10	2.016	8467
7	33.52	3.684	10	2.063	7146
7	34.79	3.73	10	2.086	7354
7	36.02	3.592	10	2.016	7805
7	37.24	3.684	10	2.063	6630

7	38.48	3.638	10	2.039	6723
8	1.12	3.546	12	1.992	6206
8	2.37	3.638	12	2.039	7572
8	3.6	3.638	12	2.039	6897
8	4.84	3.638	12	2.039	7331
8	6.08	3.592	12	2.016	7613
8	7.32	3.638	12	2.039	7279
8	8.5	3.408	12	1.922	7683
8	9.73	3.362	12	1.898	7353
8	11.02	3.269	12	1.852	7562
8	12.39	3.408	12	1.922	4789
8	13.48	3.5	12	1.969	8272
8	14.75	3.638	12	2.039	7138
8	16.06	3.454	12	1.945	7738
8	17.28	3.362	12	1.898	8094
8	18.54	3.362	12	1.898	7334
8	19.78	3.454	12	1.945	7137
8	21.04	3.362	12	1.898	7512
8	22.27	3.269	12	1.852	7402
8	23.57	3.269	12	1.852	7581
8	24.77	3.269	12	1.852	7086
8	26.01	3.176	12	1.805	7517
8	27.2	3.176	12	1.805	7492
8	28.45	3.222	12	1.828	7627
8	29.74	3.269	12	1.852	7055
8	30.99	3.454	12	1.945	7904
8	32.14	3.454	12	1.945	7592
8	33.43	3.592	12	2.016	6757
8	34.62	3.592	12	2.016	5852
8	35.9	3.5	12	1.969	6208
8	37.13	3.546	12	1.992	6401
8	38.41	3.408	12	1.922	6899
9	1.13	3.5	14	1.969	6026
9	2.37	3.638	14	2.039	6177
9	3.62	3.73	14	2.086	6964
9	4.87	3.592	14	2.016	7004
9	6.06	3.5	14	1.969	7446
9	7.38	3.454	14	1.945	7614
9	8.55	3.362	14	1.898	7080
9	9.8	3.362	14	1.898	7954
9	11.06	3.454	14	1.945	7908
9	12.35	3.546	14	1.992	7497
9	13.54	3.592	14	2.016	6806
9	14.77	3.454	14	1.945	7847
9	15.96	3.408	14	1.922	7454
9	17.3	3.454	14	1.945	8868
9	18.55	3.5	14	1.969	7048

9	19.81	3.408	14	1.922	7405
9	21.05	3.269	14	1.852	7382
9	22.29	3.315	14	1.875	7476
9	23.54	3.315	14	1.875	7524
9	24.78	3.269	14	1.852	7314
9	26.08	3.222	14	1.828	7860
9	27.24	3.269	14	1.852	6926
9	28.49	3.454	14	1.945	6788
9	29.77	3.638	14	2.039	6697
9	31	3.638	14	2.039	7042
9	32.21	3.776	14	2.109	4915
9	33.46	3.776	14	2.109	5912
9	34.76	3.684	14	2.063	6443
9	35.97	3.638	14	2.039	6626
9	37.23	3.592	14	2.016	5690
10	1.1	3.592	16	2.016	5869
10	2.29	3.638	16	2.039	6101
10	3.6	3.73	16	2.086	5428
10	4.79	3.73	16	2.086	5683
10	6.08	3.73	16	2.086	6300
10	7.31	3.638	16	2.039	6225
10	8.5	3.638	16	2.039	6867
10	9.74	3.5	16	1.969	6368
10	11.02	3.776	16	2.109	6032
10	12.25	3.913	16	2.18	5689
10	13.44	4.05	16	2.25	4988
10	14.76	4.095	16	2.273	5378
10	14.77	4.095	16	2.273	5385
10	15.98	3.959	16	2.203	5209
10	17.25	3.822	16	2.133	5212
10	18.51	3.913	16	2.18	5804
10	19.77	3.867	16	2.156	6287
10	21.02	3.638	16	2.039	7071
10	22.25	3.362	16	1.898	7064
10	23.59	3.454	16	1.945	8105
10	24.75	3.408	16	1.922	7645
10	25.95	3.315	16	1.875	7436
10	27.16	3.362	16	1.898	7716
10	28.45	3.269	16	1.852	6570
10	29.68	3.408	16	1.922	7465
10	30.96	3.454	16	1.945	7435
10	32.12	3.546	16	1.992	6601
10	33.38	3.776	16	2.109	5200
10	34.63	3.822	16	2.133	5832
10	35.86	3.546	16	1.992	7170
10	37.17	3.638	16	2.039	5888
10	38.39	3.5	16	1.969	6644

11	1.16	3.408	18	1.922	6322
11	2.35	3.454	18	1.945	7031
11	3.63	3.546	18	1.992	5192
11	4.85	3.546	18	1.992	7013
11	6.09	3.408	18	1.922	7000
11	7.35	3.362	18	1.898	6985
11	8.55	3.362	18	1.898	7569
11	9.81	3.408	18	1.922	7273
11	11.09	3.546	18	1.992	7530
11	12.35	3.546	18	1.992	7837
11	13.57	3.638	18	2.039	7691
11	14.77	3.638	18	2.039	7356
11	15.94	3.546	18	1.992	6843
11	17.33	3.408	18	1.922	6688
11	18.55	3.546	18	1.992	7370
11	19.84	3.546	18	1.992	6612
11	21.09	3.408	18	1.922	7502
11	22.37	3.269	18	1.852	6865
11	23.6	3.362	18	1.898	6560
11	24.82	3.269	18	1.852	6742
11	26.11	3.222	18	1.828	7286
11	27.36	3.222	18	1.828	7243
11	28.55	3.176	18	1.805	6886
11	29.81	3.315	18	1.875	6874
11	31.06	3.408	18	1.922	7458
11	32.25	3.454	18	1.945	7078
11	33.47	3.684	18	2.063	5719
11	34.76	3.684	18	2.063	5732
11	35.95	3.592	18	2.016	6706
11	37.24	3.638	18	2.039	6359
11	38.47	3.546	18	1.992	4630
12	1.09	3.5	20	1.969	6076
12	2.28	3.408	20	1.922	6804
12	3.58	3.5	20	1.969	6989
12	4.77	3.362	20	1.898	7266
12	6.06	3.362	20	1.898	6561
12	7.29	3.362	20	1.898	7127
12	8.49	3.408	20	1.922	7530
12	9.72	3.408	20	1.922	7280
12	10.97	3.362	20	1.898	7560
12	12.21	3.5	20	1.969	7579
12	13.48	3.638	20	2.039	7560
12	14.78	3.592	20	2.016	7277
12	16.02	3.546	20	1.992	7023
12	17.24	3.5	20	1.969	7404
12	18.49	3.362	20	1.898	6928
12	19.79	3.5	20	1.969	6142

12	21.09	3.315	20	1.875	5952
12	22.29	3.083	20	1.758	6400
12	23.63	3.222	20	1.828	6657
12	24.74	3.315	20	1.875	7061
12	25.94	3.222	20	1.828	6881
12	27.15	3.222	20	1.828	6864
12	28.43	3.222	20	1.828	6532
12	29.7	3.269	20	1.852	7069
12	30.92	3.362	20	1.898	7185
12	32.15	3.454	20	1.945	7157
12	33.42	3.5	20	1.969	6708
12	34.66	3.638	20	2.039	6051
12	35.88	3.592	20	2.016	6801
12	37.18	3.546	20	1.992	6743
12	38.39	3.546	20	1.992	6414
13	1.13	3.638	22	2.039	6381
13	2.32	3.5	22	1.969	6556
13	3.61	3.546	22	1.992	6923
13	4.87	3.546	22	1.992	6835
13	6.12	3.454	22	1.945	6952
13	7.34	3.5	22	1.969	6976
13	7.35	3.5	22	1.969	6985
13	8.56	3.408	22	1.922	7215
13	9.8	3.362	22	1.898	6907
13	11.05	3.454	22	1.945	7250
13	12.36	3.684	22	2.063	7127
13	13.57	3.638	22	2.039	7000
13	14.78	3.638	22	2.039	7120
13	15.94	3.5	22	1.969	6045
13	17.35	3.5	22	1.969	7614
13	18.59	3.5	22	1.969	6594
13	19.89	3.592	22	2.016	6953
13	21.14	3.408	22	1.922	7268
13	22.44	3.315	22	1.875	6661
13	23.66	3.362	22	1.898	6373
13	24.87	3.362	22	1.898	6554
13	24.88	3.362	22	1.898	6729
13	26.14	3.362	22	1.898	6867
13	27.39	3.362	22	1.898	6797
13	28.58	3.454	22	1.945	6644
13	29.81	3.592	22	2.016	6650
13	31.04	3.638	22	2.039	5745
13	32.22	3.638	22	2.039	5674
13	33.47	3.684	22	2.063	5760
13	34.77	3.73	22	2.086	5910
13	35.98	3.776	22	2.109	6454
13	37.3	3.73	22	2.086	5589

13	38.49	3.592	22	2.016	5522
14	1.1	3.638	24	2.039	6215
14	2.3	3.638	24	2.039	6362
14	3.6	3.592	24	2.016	6327
14	4.8	3.546	24	1.992	7295
14	6.1	3.5	24	1.969	6707
14	7.34	3.362	24	1.898	6368
14	8.55	3.362	24	1.898	6325
14	9.74	3.362	24	1.898	6594
14	10.99	3.638	24	2.039	6108
14	12.23	3.684	24	2.063	5793
14	13.55	3.73	24	2.086	5416
14	14.76	3.776	24	2.109	6087
14	16.03	3.73	24	2.086	5090
14	17.23	3.776	24	2.109	5791
14	18.51	3.776	24	2.109	6350
14	19.78	3.684	24	2.063	4892
14	21.04	3.362	24	1.898	6188
14	22.23	3.315	24	1.875	7337
14	23.58	3.315	24	1.875	6430
14	24.73	3.315	24	1.875	6877
14	25.97	3.222	24	1.828	7087
14	27.15	3.176	24	1.805	6680
14	28.43	3.083	24	1.758	5818
14	29.67	3.129	24	1.781	6144
14	30.92	3.269	24	1.852	6597
14	32.15	3.315	24	1.875	6525
14	33.38	3.454	24	1.945	5996
14	34.61	3.592	24	2.016	5278
14	35.85	3.546	24	1.992	5687
14	37.14	3.5	24	1.969	6560
14	38.44	3.5	24	1.969	5793
15	1.17	3.684	26	2.063	5978
15	2.43	3.592	26	2.016	5808
15	3.72	3.5	26	1.969	6665
15	4.92	3.408	26	1.922	6927
15	6.15	3.408	26	1.922	6424
15	7.42	3.362	26	1.898	6338
15	8.64	3.222	26	1.828	6977
15	9.9	3.176	26	1.805	5582
15	11.12	3.176	26	1.805	5966
15	12.41	3.269	26	1.852	6376
15	13.64	3.362	26	1.898	7043
15	14.87	3.5	26	1.969	5712
15	16.04	3.362	26	1.898	6519
15	17.38	3.408	26	1.922	6895
15	18.59	3.408	26	1.922	6904

15	19.89	3.454	26	1.945	6317
15	21.15	3.362	26	1.898	6098
15	22.39	3.315	26	1.875	6516
15	23.58	3.315	26	1.875	6725
15	24.85	3.269	26	1.852	6743
15	26.05	3.176	26	1.805	6690
15	27.33	3.129	26	1.781	6621
15	28.56	3.083	26	1.758	6082
15	29.8	3.129	26	1.781	5871
15	31	3.222	26	1.828	6354
15	32.24	3.315	26	1.875	6240
15	33.47	3.5	26	1.969	6341
15	34.76	3.592	26	2.016	4980
15	35.97	3.638	26	2.039	6030
15	37.27	3.546	26	1.992	6221
15	38.51	3.684	26	2.063	5848
16	1.09	3.638	28	2.039	6226
16	2.28	3.5	28	1.969	6021
16	3.58	3.222	28	1.828	6362
16	4.79	3.222	28	1.828	6222
16	6.08	3.176	28	1.805	6434
16	7.28	3.083	28	1.758	6462
16	8.52	3.036	28	1.734	6571
16	9.73	3.036	28	1.734	6000
16	10.99	2.895	28	1.664	6291
16	12.21	3.036	28	1.734	5921
16	13.47	3.129	28	1.781	6811
16	14.72	3.083	28	1.758	6264
16	16.02	3.036	28	1.734	6157
16	17.24	3.083	28	1.758	6419
16	18.44	3.036	28	1.734	5827
16	19.69	3.176	28	1.805	5951
16	20.98	3.129	28	1.781	6603
16	20.99	3.129	28	1.781	6503
16	22.17	3.083	28	1.758	6393
16	23.48	3.083	28	1.758	6516
16	24.68	2.989	28	1.711	6199
16	25.94	2.942	28	1.688	6560
16	27.13	2.895	28	1.664	6352
16	28.44	2.8	28	1.617	5690
16	29.67	2.848	28	1.641	5766
16	30.94	2.989	28	1.711	6321
16	32.14	3.129	28	1.781	6426
16	33.43	3.222	28	1.828	5479
16	34.67	3.362	28	1.898	5225
16	35.87	3.362	28	1.898	6002
16	35.88	3.362	28	1.898	5941

16	37.14	3.362	28	1.898	5998
16	38.4	3.5	28	1.969	5544
17	1.22	3.362	30	1.898	6413
17	2.43	3.222	30	1.828	6529
17	3.71	3.222	30	1.828	6556
17	4.92	3.315	30	1.875	6687
17	6.14	3.129	30	1.781	6224
17	7.41	3.129	30	1.781	6118
17	8.65	2.989	30	1.711	5981
17	9.91	3.036	30	1.734	6439
17	11.13	3.036	30	1.734	6192
17	12.45	3.129	30	1.781	6370
17	13.64	3.129	30	1.781	6052
17	14.91	3.083	30	1.758	6791
17	16.14	3.036	30	1.734	6446
17	17.45	2.989	30	1.711	6232
17	18.62	2.989	30	1.711	6053
17	19.93	3.176	30	1.805	5930
17	19.94	3.176	30	1.805	5845
17	21.22	3.036	30	1.734	5864
17	22.42	2.989	30	1.711	5971
17	23.59	2.989	30	1.711	6359
17	24.88	2.942	30	1.688	6251
17	26.09	2.942	30	1.688	5099
17	27.35	2.848	30	1.641	6116
17	28.55	2.895	30	1.664	5415
17	29.8	2.989	30	1.711	5693
17	31.04	3.129	30	1.781	5906
17	32.26	3.315	30	1.875	5830
17	33.48	3.5	30	1.969	4713
17	34.82	3.5	30	1.969	4854
17	36.02	3.592	30	2.016	5219
17	36.03	3.638	30	2.039	5812
17	37.33	3.592	30	2.016	5390
18	1.09	3.638	32	2.039	5479
18	2.27	3.454	32	1.945	6006
18	3.54	3.362	32	1.898	6148
18	4.77	3.315	32	1.875	6487
18	6.06	3.222	32	1.828	5978
18	7.31	3.222	32	1.828	5875
18	8.46	3.083	32	1.758	5577
18	9.75	3.129	32	1.781	5123
18	10.99	3.408	32	1.922	4998
18	12.26	3.454	32	1.945	5376
18	13.51	3.5	32	1.969	5418
18	14.75	3.454	32	1.945	5303
18	16.05	3.408	32	1.922	5841

18	17.23	3.454	32	1.945	5450
18	18.42	3.408	32	1.922	4854
18	19.68	3.408	32	1.922	5295
18	20.99	3.083	32	1.758	6078
18	22.16	2.942	32	1.688	5163
18	23.43	2.942	32	1.688	5499
18	24.66	2.848	32	1.641	6196
18	25.96	2.753	32	1.594	6627
18	27.17	2.753	32	1.594	7958
18	28.45	2.848	32	1.641	6727
18	29.67	2.848	32	1.641	8307
18	30.92	2.989	32	1.711	8485
18	32.19	3.083	32	1.758	8558
18	33.43	3.362	32	1.898	8044
18	34.67	3.362	32	1.898	7942
18	35.88	3.362	32	1.898	8564
18	37.16	3.315	32	1.875	8824
18	38.39	3.454	32	1.945	8098
19	1.21	3.454	34	1.945	8825
19	2.41	3.362	34	1.898	8721
19	3.69	3.222	34	1.828	8275
19	4.92	3.315	34	1.875	8572
19	6.14	3.129	34	1.781	9415
19	7.41	3.083	34	1.758	9032
19	8.63	3.036	34	1.734	8634
19	9.9	3.036	34	1.734	8697
19	11.12	2.989	34	1.711	8751
19	12.37	3.036	34	1.734	8811
19	13.64	3.129	34	1.781	8584
19	14.94	3.129	34	1.781	8759
19	16.16	3.129	34	1.781	8930
19	17.46	3.036	34	1.734	9134
19	18.63	3.036	34	1.734	8657
19	19.92	3.083	34	1.758	8836
19	21.19	2.895	34	1.664	8625
19	22.4	2.848	34	1.641	7929
19	23.59	2.8	34	1.617	7182
19	24.88	2.658	34	1.547	7888
19	26.1	2.658	34	1.547	7450
19	27.33	2.753	34	1.594	6070
19	28.6	2.658	34	1.547	7385
19	29.8	2.8	34	1.617	7746
19	31.07	2.942	34	1.688	7422
19	32.28	3.036	34	1.734	7610
19	33.5	3.269	34	1.852	6278
19	34.81	3.546	34	1.992	5599
19	36.03	3.454	34	1.945	6417

19	37.32	3.408	34	1.922	6327
19	38.56	3.592	34	2.016	5959
20	1.01	3.408	36	1.922	8440
20	1.02	3.408	36	1.922	8298
20	2.22	3.269	36	1.852	7459
20	3.53	3.222	36	1.828	6437
20	4.78	3.222	36	1.828	6663
20	6.01	3.269	36	1.852	6710
20	7.23	3.129	36	1.781	6404
20	8.45	3.036	36	1.734	6087
20	9.7	2.989	36	1.711	5800
20	10.94	2.942	36	1.688	5873
20	12.21	3.036	36	1.734	6114
20	13.45	3.129	36	1.781	5402
20	14.72	3.222	36	1.828	6441
20	16	3.176	36	1.805	7033
20	17.18	3.129	36	1.781	6586
20	18.39	3.036	36	1.734	6524
20	19.69	3.083	36	1.758	5774
20	20.96	2.942	36	1.688	6228
20	22.15	2.848	36	1.641	6203
20	23.39	2.8	36	1.617	4991
20	24.63	2.753	36	1.594	5373
20	25.88	2.706	36	1.57	5721
20	27.13	2.61	36	1.523	5906
20	28.4	2.706	36	1.57	5643
20	29.61	2.848	36	1.641	5885
20	30.88	2.989	36	1.711	6089
20	32.08	3.129	36	1.781	6510
20	33.4	3.362	36	1.898	5196
20	33.41	3.362	36	1.898	5128
20	34.6	3.546	36	1.992	5544
20	35.8	3.546	36	1.992	7059
20	37.06	3.5	36	1.969	6184
20	38.38	3.5	36	1.969	6133
21	1.19	3.454	38	1.945	5846
21	2.43	3.362	38	1.898	4981
21	3.72	3.269	38	1.852	6042
21	4.97	3.315	38	1.875	6204
21	6.14	3.222	38	1.828	5801
21	7.48	3.129	38	1.781	5866
21	8.66	3.036	38	1.734	5698
21	9.95	2.989	38	1.711	5612
21	11.15	2.942	38	1.688	5817
21	12.44	2.989	38	1.711	5600
21	13.66	3.083	38	1.758	6095
21	14.91	3.176	38	1.805	6160

21	16.18	3.129	38	1.781	6249
21	17.42	3.176	38	1.805	6654
21	18.63	3.083	38	1.758	5125
21	19.87	3.176	38	1.805	6009
21	21.23	3.083	38	1.758	5745
21	22.46	2.942	38	1.688	5711
21	23.65	2.942	38	1.688	6051
21	24.9	2.848	38	1.641	5258
21	26.11	2.753	38	1.594	5118
21	27.33	2.753	38	1.594	5638
21	28.6	2.8	38	1.617	4538
21	29.81	2.989	38	1.711	5450
21	31.09	3.176	38	1.805	5746
21	32.29	3.362	38	1.898	5693
21	33.56	3.546	38	1.992	6321
21	34.81	3.684	38	2.063	4590
21	36.06	3.638	38	2.039	5858
21	37.34	3.776	38	2.109	5299
21	38.53	3.592	38	2.016	6289
22	1	3.5	40	1.969	5740
22	2.24	3.408	40	1.922	5894
22	3.52	3.408	40	1.922	5443
22	4.77	3.315	40	1.875	6121
22	5.95	3.362	40	1.898	4818
22	7.24	3.176	40	1.805	6007
22	8.42	3.129	40	1.781	6105
22	9.67	3.176	40	1.805	5813
22	10.92	3.315	40	1.875	5693
22	12.2	3.362	40	1.898	4483
22	13.41	3.269	40	1.852	4871
22	14.67	3.315	40	1.875	5671
22	15.94	3.315	40	1.875	5620
22	17.14	3.315	40	1.875	4981
22	18.41	3.315	40	1.875	5120
22	19.75	3.408	40	1.922	4972
22	21.01	3.269	40	1.852	5889
22	22.2	3.083	40	1.758	6014
22	23.45	3.036	40	1.734	6056
22	24.7	2.989	40	1.711	5025
22	25.94	2.989	40	1.711	5958
22	27.14	2.942	40	1.688	6068
22	28.43	2.942	40	1.688	5456
22	29.62	2.989	40	1.711	5584
22	30.91	3.222	40	1.828	6557
22	32.09	3.269	40	1.852	5398
22	33.42	3.454	40	1.945	5614
22	34.59	3.592	40	2.016	5534

22	35.82	3.638	40	2.039	6059
22	35.83	3.638	40	2.039	6059
22	37.1	3.638	40	2.039	6303
22	38.38	3.822	40	2.133	5293
23	1.21	3.362	42	1.898	5683
23	2.51	3.315	42	1.875	5794
23	3.73	3.269	42	1.852	5546
23	4.97	3.315	42	1.875	6639
23	6.15	3.222	42	1.828	6320
23	7.46	3.129	42	1.781	6003
23	8.65	3.083	42	1.758	6105
23	9.92	2.989	42	1.711	5939
23	11.14	3.036	42	1.734	6239
23	12.43	3.036	42	1.734	5888
23	13.67	3.036	42	1.734	5913
23	14.9	3.083	42	1.758	5882
23	16.17	3.083	42	1.758	6508
23	17.38	3.129	42	1.781	5236
23	18.62	3.036	42	1.734	6278
23	19.85	3.222	42	1.828	4665
23	21.17	3.036	42	1.734	5261
23	22.45	3.083	42	1.758	5687
23	23.64	3.036	42	1.734	5792
23	24.87	2.989	42	1.711	6044
23	26.14	2.989	42	1.711	5578
23	27.35	2.848	42	1.641	5469
23	28.58	2.942	42	1.688	5246
23	29.81	3.036	42	1.734	5677
23	31.08	3.176	42	1.805	6791
23	32.28	3.315	42	1.875	5616
23	33.59	3.5	42	1.969	5929
23	34.79	3.592	42	2.016	5828
23	36.01	3.638	42	2.039	5546
23	37.31	3.684	42	2.063	5897
23	38.54	3.592	42	2.016	5439
24	1.01	3.454	44	1.945	5631
24	2.23	3.129	44	1.781	6156
24	3.58	3.222	44	1.828	5696
24	4.79	3.083	44	1.758	6472
24	5.98	3.129	44	1.781	5929
24	7.26	2.989	44	1.711	5851
24	8.44	2.895	44	1.664	5488
24	9.71	2.942	44	1.688	6202
24	10.96	2.942	44	1.688	6143
24	12.2	2.989	44	1.711	5975
24	13.42	2.989	44	1.711	5938
24	14.7	3.036	44	1.734	5926

24	15.93	2.989	44	1.711	5777
24	17.12	2.895	44	1.664	5663
24	18.38	2.942	44	1.688	5668
24	19.67	3.083	44	1.758	5905
24	20.93	2.989	44	1.711	6105
24	22.18	2.989	44	1.711	5707
24	23.39	2.989	44	1.711	5728
24	24.67	2.895	44	1.664	5900
24	25.88	2.753	44	1.594	5462
24	27.1	2.753	44	1.594	5727
24	28.38	2.8	44	1.617	5439
24	29.62	2.942	44	1.688	5987
24	30.88	3.036	44	1.734	6184
24	32.08	3.176	44	1.805	6065
24	33.36	3.269	44	1.852	6006
24	34.56	3.5	44	1.969	5087
24	35.79	3.546	44	1.992	5166
24	37.01	3.592	44	2.016	5969
24	38.33	3.546	44	1.992	6027
25	0.01	3.269	46	1.852	5984
25	1.2	3.222	46	1.828	5943
25	2.49	3.269	46	1.852	6205
25	3.67	3.176	46	1.805	6287
25	4.93	3.129	46	1.781	5978
25	6.21	3.083	46	1.758	6301
25	7.45	3.036	46	1.734	5007
25	8.66	3.036	46	1.734	5662
25	9.91	3.083	46	1.758	5488
25	11.14	3.083	46	1.758	5820
25	12.43	3.083	46	1.758	5828
25	13.65	2.989	46	1.711	5704
25	14.86	3.036	46	1.734	6198
25	16.16	3.129	46	1.781	6227
25	17.35	3.269	46	1.852	5499
25	18.65	3.129	46	1.781	5313
25	19.91	3.176	46	1.805	6236
25	21.18	3.083	46	1.758	6300
25	22.44	3.083	46	1.758	6280
25	23.63	2.989	46	1.711	5400
25	24.87	2.942	46	1.688	5723
25	26.14	2.942	46	1.688	5579
25	27.36	3.129	46	1.781	5305
25	28.59	3.176	46	1.805	5917
25	29.84	3.315	46	1.875	5493
25	31.08	3.408	46	1.922	5090
25	32.26	3.5	46	1.969	4732
25	33.55	3.638	46	2.039	5188

25	34.76	3.546	46	1.992	5736
25	35.99	3.592	46	2.016	4669
25	37.32	3.592	46	2.016	4304
26	1	3.408	48	1.922	5690
26	2.19	3.315	48	1.875	5194
26	3.54	3.269	48	1.852	5852
26	4.75	3.222	48	1.828	5218
26	5.99	3.222	48	1.828	5347
26	7.25	3.176	48	1.805	5694
26	8.43	3.129	48	1.781	5707
26	9.67	3.176	48	1.805	5535
26	10.94	3.176	48	1.805	4169
26	12.17	3.222	48	1.828	5021
26	13.41	3.269	48	1.852	4677
26	14.64	3.269	48	1.852	4738
26	15.9	3.315	48	1.875	5441
26	17.11	3.362	48	1.898	4948
26	18.36	3.454	48	1.945	4601
26	19.65	3.454	48	1.945	5313
26	20.91	3.176	48	1.805	6029
26	22.22	3.222	48	1.828	6662
26	23.4	3.176	48	1.805	5812
26	24.72	3.222	48	1.828	5560
26	25.88	3.129	48	1.781	5391
26	27.11	2.989	48	1.711	5743
26	28.37	2.895	48	1.664	5022
26	29.61	2.848	48	1.641	5688
26	30.87	2.895	48	1.664	5897
26	32.09	2.989	48	1.711	5140
26	33.29	3.176	48	1.805	5617
26	34.55	3.269	48	1.852	3584
26	35.86	3.454	48	1.945	4217
26	37.03	3.315	48	1.875	6163
26	38.27	3.454	48	1.945	5332
27	0.04	3.269	50	1.852	5998
27	1.29	3.222	50	1.828	6304
27	1.3	3.315	50	1.875	6055
27	2.48	3.269	50	1.852	5877
27	3.72	3.129	50	1.781	5814
27	4.93	3.036	50	1.734	5656
27	6.24	2.942	50	1.688	5713
27	7.48	2.8	50	1.617	5761
27	8.7	2.753	50	1.594	6219
27	9.96	2.753	50	1.594	5601
27	11.17	2.895	50	1.664	5498
27	12.49	2.942	50	1.688	5252
27	13.7	2.989	50	1.711	5331

27	14.85	3.083	50	1.758	5976
27	16.2	3.269	50	1.852	5557
27	17.38	3.129	50	1.781	6386
27	18.72	3.129	50	1.781	6373
27	19.94	3.083	50	1.758	5915
27	21.24	2.989	50	1.711	5497
27	22.48	2.989	50	1.711	5212
27	23.69	2.848	50	1.641	5726
27	24.97	2.8	50	1.617	5233
27	26.19	2.706	50	1.57	5549
27	27.44	2.753	50	1.594	5669
27	28.65	2.895	50	1.664	5735
27	29.89	3.036	50	1.734	5771
27	31.17	3.083	50	1.758	4931
27	32.35	3.269	50	1.852	5493
27	33.6	3.362	50	1.898	5960
27	34.89	3.454	50	1.945	5162
27	36.06	3.454	50	1.945	5280
27	37.4	3.5	50	1.969	4857
28	1.02	3.269	52	1.852	5635
28	2.24	3.176	52	1.805	5657
28	3.54	3.222	52	1.828	5658
28	4.73	3.269	52	1.852	6189
28	5.99	3.083	52	1.758	4459
28	7.23	3.083	52	1.758	6138
28	8.41	2.895	52	1.664	5175
28	9.71	2.848	52	1.641	5691
28	10.95	2.8	52	1.617	5629
28	12.17	2.753	52	1.594	5319
28	13.4	2.753	52	1.594	4803
28	14.66	2.8	52	1.617	5336
28	15.93	2.848	52	1.641	5214
28	17.15	2.895	52	1.664	5354
28	18.38	2.989	52	1.711	5935
28	19.69	3.129	52	1.781	5878
28	20.95	3.036	52	1.734	6061
28	22.26	3.036	52	1.734	5406
28	23.44	2.989	52	1.711	5943
28	24.79	2.942	52	1.688	5558
28	25.89	2.895	52	1.664	5691
28	27.11	2.8	52	1.617	5740
28	28.39	2.8	52	1.617	4511
28	29.6	2.706	52	1.57	5763
28	30.87	2.706	52	1.57	6039
28	32.09	2.895	52	1.664	6307
28	33.3	2.942	52	1.688	5811
28	34.6	3.129	52	1.781	4100

28	35.81	3.269	52	1.852	5863
28	37.1	3.315	52	1.875	6053
28	38.27	3.269	52	1.852	5147
29	1.32	3.315	54	1.875	5484
29	2.5	3.269	54	1.852	5919
29	3.78	3.269	54	1.852	6206
29	4.95	3.222	54	1.828	5705
29	6.25	3.222	54	1.828	5424
29	7.46	3.036	54	1.734	5417
29	8.74	2.989	54	1.711	5580
29	9.97	2.942	54	1.688	5724
29	11.2	2.942	54	1.688	5499
29	12.49	2.942	54	1.688	5374
29	13.68	3.036	54	1.734	5569
29	14.8	3.083	54	1.758	5553
29	16.17	3.036	54	1.734	5535
29	17.38	3.083	54	1.758	5519
29	18.67	3.269	54	1.852	5699
29	19.93	3.083	54	1.758	5914
29	21.22	3.083	54	1.758	4986
29	22.46	3.083	54	1.758	5404
29	23.68	3.083	54	1.758	5991
29	24.94	2.989	54	1.711	5366
29	26.19	2.989	54	1.711	5664
29	27.43	2.942	54	1.688	5392
29	28.63	2.895	54	1.664	4735
29	29.9	2.989	54	1.711	5199
29	31.16	3.036	54	1.734	5501
29	32.35	3.129	54	1.781	5394
29	33.61	3.222	54	1.828	4150
29	34.89	3.315	54	1.875	4461
29	36.07	3.5	54	1.969	4635
29	37.37	3.454	54	1.945	4462
30	1.03	3.362	56	1.898	6102
30	2.24	3.222	56	1.828	5684
30	3.54	3.269	56	1.852	5490
30	4.7	3.269	56	1.852	5187
30	5.98	3.222	56	1.828	5638
30	7.25	3.083	56	1.758	5424
30	8.46	2.942	56	1.688	5367
30	9.67	2.989	56	1.711	5563
30	10.95	3.222	56	1.828	4747
30	12.15	3.222	56	1.828	5143
30	13.41	3.269	56	1.852	5025
30	14.7	3.222	56	1.828	5268
30	15.92	3.222	56	1.828	4299
30	17.13	3.269	56	1.852	4301

30	18.43	3.362	56	1.898	5165
30	19.66	3.315	56	1.875	5049
30	20.95	3.129	56	1.781	6379
30	22.19	3.083	56	1.758	6224
30	23.37	3.083	56	1.758	5875
30	24.74	3.083	56	1.758	6221
30	25.86	2.989	56	1.711	5672
30	27.06	2.848	56	1.641	5194
30	28.36	2.753	56	1.594	4953
30	29.52	2.8	56	1.617	5331
30	30.78	2.848	56	1.641	5503
30	32.07	2.942	56	1.688	5206
30	33.27	2.942	56	1.688	5642
30	34.57	3.269	56	1.852	3324
30	35.76	3.222	56	1.828	4861
30	37.03	3.222	56	1.828	5348
30	38.2	3.362	56	1.898	5065
31	1.29	3.269	58	1.852	5626
31	2.47	3.269	58	1.852	5927
31	3.78	3.222	58	1.828	5557
31	4.94	3.176	58	1.805	5819
31	6.29	3.129	58	1.781	5471
31	7.44	3.036	58	1.734	5802
31	8.75	2.942	58	1.688	5809
31	10.03	2.848	58	1.641	5471
31	11.2	2.8	58	1.617	5708
31	12.49	2.753	58	1.594	5381
31	13.66	2.848	58	1.641	5657
31	14.82	2.8	58	1.617	5520
31	16.18	2.848	58	1.641	5861
31	17.42	2.895	58	1.664	5567
31	18.63	3.129	58	1.781	5327
31	19.94	3.083	58	1.758	6159
31	21.18	3.129	58	1.781	5400
31	22.47	3.129	58	1.781	5349
31	23.7	3.129	58	1.781	5726
31	24.9	2.989	58	1.711	5584
31	26.16	2.895	58	1.664	5240
31	27.41	2.8	58	1.617	4989
31	28.61	2.753	58	1.594	5382
31	29.89	2.848	58	1.641	5514
31	31.11	2.942	58	1.688	5397
31	32.31	3.222	58	1.828	6063
31	33.59	3.269	58	1.852	4165
31	34.88	3.454	58	1.945	4948
31	36.08	3.362	58	1.898	4563
31	37.33	3.5	58	1.969	4395

32	1.02	3.362	60	1.898	5409
32	2.21	3.269	60	1.852	5799
32	3.47	3.269	60	1.852	5813
32	4.69	3.176	60	1.805	5329
32	5.91	3.269	60	1.852	5877
32	7.23	3.222	60	1.828	6019
32	8.4	3.083	60	1.758	5690
32	9.62	2.989	60	1.711	5549
32	10.89	2.989	60	1.711	5676
32	12.11	2.848	60	1.641	5795
32	13.39	2.848	60	1.641	4784
32	14.63	2.848	60	1.641	5724
32	15.84	2.8	60	1.617	5478
32	17.08	2.895	60	1.664	5319
32	18.34	2.989	60	1.711	5496
32	19.58	3.176	60	1.805	5559
32	20.88	3.176	60	1.805	6187
32	22.07	3.176	60	1.805	5835
32	23.3	3.176	60	1.805	6023
32	24.65	3.176	60	1.805	5531
32	25.85	3.129	60	1.781	5649
32	27.01	2.895	60	1.664	5240
32	28.3	2.848	60	1.641	5475
32	29.47	2.848	60	1.641	4785
32	30.71	2.848	60	1.641	5429
32	32.07	2.942	60	1.688	5672
32	33.17	3.083	60	1.758	5874
32	34.53	3.176	60	1.805	4747
32	35.72	3.269	60	1.852	5238
32	37.03	3.269	60	1.852	5252
32	38.23	3.408	60	1.922	4752
33	1.3	3.454	62	1.945	5743
33	2.49	3.315	62	1.875	6103
33	3.77	3.269	62	1.852	6022
33	4.98	3.362	62	1.898	5904
33	6.3	3.269	62	1.852	5710
33	7.43	3.222	62	1.828	6081
33	8.78	3.129	62	1.781	5813
33	10.04	3.083	62	1.758	6148
33	11.22	2.989	62	1.711	5373
33	12.51	2.895	62	1.664	6420
33	13.67	2.942	62	1.688	5639
33	14.92	2.942	62	1.688	5986
33	16.24	2.895	62	1.664	5679
33	17.48	2.895	62	1.664	5522
33	18.69	2.989	62	1.711	5090
33	19.99	3.176	62	1.805	5352

33	21.25	3.222	62	1.828	5163
33	22.48	3.222	62	1.828	5485
33	23.7	3.269	62	1.852	5736
33	24.92	3.129	62	1.781	5809
33	26.15	3.083	62	1.758	5027
33	27.41	3.036	62	1.734	5408
33	28.65	2.895	62	1.664	5265
33	29.86	3.036	62	1.734	4827
33	31.09	3.036	62	1.734	4983
33	32.29	3.129	62	1.781	4650
33	33.61	3.269	62	1.852	4893
33	34.85	3.315	62	1.875	4160
33	36.1	3.362	62	1.898	4647
33	37.36	3.408	62	1.922	5184
33	38.54	3.546	62	1.992	4568
34	1.08	3.5	64	1.969	5401
34	1.09	3.5	64	1.969	5411
34	2.29	3.408	64	1.922	5597
34	3.53	3.362	64	1.898	4899
34	4.8	3.454	64	1.945	5500
34	6.03	3.362	64	1.898	5656
34	7.33	3.269	64	1.852	5113
34	8.52	3.176	64	1.805	5376
34	9.73	3.269	64	1.852	5425
34	10.99	3.362	64	1.898	4705
34	12.24	3.269	64	1.852	4206
34	13.51	3.269	64	1.852	4198
34	14.71	3.222	64	1.828	5286
34	15.96	3.315	64	1.875	4516
34	17.18	3.269	64	1.852	4997
34	18.44	3.408	64	1.922	4509
34	19.68	3.408	64	1.922	4494
34	19.69	3.408	64	1.922	4505
34	20.95	3.222	64	1.828	5037
34	22.18	3.129	64	1.781	6238
34	23.43	3.176	64	1.805	5866
34	24.66	3.036	64	1.734	6032
34	25.93	3.036	64	1.734	5928
34	27.09	2.989	64	1.711	5792
34	28.38	2.8	64	1.617	5106
34	29.57	2.8	64	1.617	5697
34	30.82	2.753	64	1.594	5614
34	32.12	2.895	64	1.664	5424
34	33.3	3.036	64	1.734	5293
34	34.6	3.269	64	1.852	4341
34	35.82	3.315	64	1.875	5074
34	37.11	3.408	64	1.922	4463

34	38.33	3.638	64	2.039	4082
35	0.02	3.362	66	1.898	5787
35	1.31	3.408	66	1.922	3892
35	2.54	3.408	66	1.922	5226
35	3.75	3.408	66	1.922	6007
35	5.01	3.408	66	1.922	5994
35	6.24	3.269	66	1.852	5532
35	7.43	3.315	66	1.875	5713
35	8.73	3.129	66	1.781	5724
35	9.96	3.083	66	1.758	5508
35	11.19	3.036	66	1.734	6208
35	12.46	2.942	66	1.688	5534
35	13.64	2.989	66	1.711	5609
35	14.92	3.083	66	1.758	5757
35	16.16	3.083	66	1.758	6085
35	17.38	3.083	66	1.758	5959
35	18.69	3.129	66	1.781	6245
35	19.94	3.269	66	1.852	5932
35	21.18	3.129	66	1.781	5427
35	22.43	3.129	66	1.781	5624
35	23.63	3.083	66	1.758	5299
35	24.87	3.036	66	1.734	5829
35	26.08	2.989	66	1.711	5010
35	27.37	2.942	66	1.688	5304
35	28.59	2.895	66	1.664	5192
35	29.84	2.8	66	1.617	5608
35	31.05	2.8	66	1.617	5558
35	32.28	2.942	66	1.688	5539
35	33.56	2.989	66	1.711	5222
35	34.8	3.315	66	1.875	4256
35	34.81	3.222	66	1.828	5440
35	36.08	3.408	66	1.922	5393
35	37.33	3.546	66	1.992	4650
35	38.56	3.73	66	2.086	4544
36	0.02	3.73	68	2.086	4544
36	1.01	3.222	68	1.828	4933
36	2.27	3.222	68	1.828	5322
36	3.53	3.222	68	1.828	5119
36	4.79	3.269	68	1.852	5816
36	6.08	3.222	68	1.828	5841
36	7.29	3.083	68	1.758	5536
36	8.54	3.036	68	1.734	5584
36	9.39	3.362	68	1.898	2510
36	9.75	3.036	68	1.734	5699
36	11	2.989	68	1.711	5835
36	12.21	2.895	68	1.664	5994
36	13.47	2.895	68	1.664	5019

36	14.68	2.942	68	1.688	5832
36	15.94	3.036	68	1.734	6308
36	17.15	3.036	68	1.734	5577
36	18.39	2.942	68	1.688	7033
36	19.66	3.083	68	1.758	6537
36	20.85	2.989	68	1.711	7366
36	22.18	2.895	68	1.664	7378
36	23.43	2.989	68	1.711	7861
36	24.66	2.895	68	1.664	7362
36	25.93	2.753	68	1.594	7180
36	27.09	2.753	68	1.594	7588
36	28.4	2.658	68	1.547	7137
36	29.65	2.61	68	1.523	8687
36	30.91	2.658	68	1.547	8154
36	32.18	2.848	68	1.641	7193
36	33.38	2.942	68	1.688	7406
36	34.66	3.129	68	1.781	5755
36	35.9	3.269	68	1.852	6222
36	37.11	3.176	68	1.805	6249
36	38.37	3.362	68	1.898	6373
37	0.02	3.176	70	1.805	7209
37	1.16	3.083	70	1.758	5592
37	2.49	3.083	70	1.758	7168
37	3.62	3.129	70	1.781	7515
37	4.92	3.036	70	1.734	7287
37	4.93	2.989	70	1.711	6985
37	6.18	2.895	70	1.664	7124
37	7.38	2.942	70	1.688	7054
37	8.59	2.848	70	1.641	7559
37	9.86	2.895	70	1.664	7965
37	11.11	2.895	70	1.664	7063
37	12.37	2.942	70	1.688	5684
37	13.53	3.036	70	1.734	6072
37	14.84	2.989	70	1.711	5610
37	16.11	3.083	70	1.758	5760
37	17.35	3.176	70	1.805	5230
37	18.67	2.989	70	1.711	5306
37	19.86	2.942	70	1.688	5233
37	21.15	2.989	70	1.711	5663
37	22.42	2.989	70	1.711	5379
37	23.6	2.895	70	1.664	5152
37	24.86	2.8	70	1.617	4909
37	26.1	2.848	70	1.641	4708
37	27.35	2.848	70	1.641	4683
37	28.53	2.895	70	1.664	5096
37	29.78	3.083	70	1.758	5221
37	30.98	3.222	70	1.828	4561

37	32.29	3.362	70	1.898	4210
37	33.5	3.362	70	1.898	4212
37	34.76	3.408	70	1.922	3654
37	36.01	3.5	70	1.969	5098
37	37.26	3.5	70	1.969	4271
37	38.53	3.73	70	2.086	4544
38	1.16	3.315	72	1.875	4449
38	2.42	3.222	72	1.828	5273
38	3.69	3.269	72	1.852	4645
38	4.88	3.176	72	1.805	4809
38	6.16	3.129	72	1.781	5131
38	7.41	3.083	72	1.758	5222
38	8.69	3.083	72	1.758	5118
38	9.84	3.222	72	1.828	4726
38	11.17	3.362	72	1.898	4377
38	12.32	3.315	72	1.875	4394
38	13.57	3.408	72	1.922	3947
38	14.83	3.454	72	1.945	4460
38	16.02	3.454	72	1.945	4458
38	17.21	3.362	72	1.898	4311
38	18.49	3.408	72	1.922	3827
38	18.51	3.408	72	1.922	3761
38	19.76	3.362	72	1.898	4197
38	20.97	2.989	72	1.711	5387
38	22.27	2.895	72	1.664	5499
38	23.52	2.895	72	1.664	5375
38	24.76	2.895	72	1.664	5309
38	26.05	2.848	72	1.641	5586
38	27.24	2.753	72	1.594	5595
38	28.46	2.8	72	1.617	5485
38	29.7	2.8	72	1.617	5368
38	30.98	2.895	72	1.664	5287
38	32.19	2.989	72	1.711	5722
38	33.45	3.083	72	1.758	5646
38	34.66	3.315	72	1.875	4629
38	35.98	3.362	72	1.898	4758
38	37.13	3.362	72	1.898	4965
38	38.46	3.546	72	1.992	4174
39	1.11	3.454	74	1.945	5101
39	2.37	3.315	74	1.875	5597
39	3.54	3.315	74	1.875	5480
39	4.9	3.176	74	1.805	5201
39	6.08	3.083	74	1.758	5307
39	7.35	3.083	74	1.758	5047
39	8.59	3.083	74	1.758	5564
39	9.86	2.989	74	1.711	5358
39	11.15	2.989	74	1.711	5611

39	12.36	3.036	74	1.734	5533
39	13.56	3.036	74	1.734	5410
39	14.86	3.083	74	1.758	4782
39	16.13	3.129	74	1.781	5613
39	17.35	2.989	74	1.711	5503
39	18.71	2.942	74	1.688	5163
39	19.88	3.129	74	1.781	5515
39	21.17	2.989	74	1.711	5704
39	22.48	2.989	74	1.711	5200
39	23.66	2.942	74	1.688	5393
39	24.84	2.895	74	1.664	5295
39	26.06	2.895	74	1.664	5577
39	27.29	2.895	74	1.664	5366
39	28.43	2.848	74	1.641	5162
39	29.77	2.848	74	1.641	5224
39	30.94	2.989	74	1.711	5202
39	32.22	3.083	74	1.758	5366
39	33.48	3.129	74	1.781	5600
39	34.75	3.315	74	1.875	5055
39	35.98	3.315	74	1.875	3537
39	37.22	3.408	74	1.922	3692
39	38.47	3.362	74	1.898	4501
40	1.16	3.454	76	1.945	5166
40	2.4	3.408	76	1.922	5416
40	3.64	3.222	76	1.828	5075
40	4.83	3.315	76	1.875	5290
40	5.77	3.5	76	1.969	2033
40	6.1	3.222	76	1.828	5718
40	7.38	3.083	76	1.758	4943
40	8.65	3.083	76	1.758	5530
40	9.84	2.942	76	1.688	5326
40	11.17	2.942	76	1.688	5542
40	12.3	2.989	76	1.711	5673
40	13.55	2.989	76	1.711	5331
40	14.78	2.942	76	1.688	5144
40	16	2.989	76	1.711	5622
40	17.13	2.989	76	1.711	5170
40	18.46	2.895	76	1.664	5080
40	20.91	2.989	76	1.711	5402
40	22.27	2.942	76	1.688	5027
40	23.46	2.895	76	1.664	5621
40	24.73	2.895	76	1.664	5017
40	26	2.895	76	1.664	5746
40	27.19	2.8	76	1.617	5594
40	28.41	2.8	76	1.617	4873
40	29.68	2.848	76	1.641	5250
40	30.97	2.942	76	1.688	5255

40	32.19	3.129	76	1.781	5684
40	33.45	3.176	76	1.805	5728
40	34.66	3.222	76	1.828	4744
40	35.98	3.362	76	1.898	4660
40	37.14	3.315	76	1.875	4883
40	38.43	3.546	76	1.992	4265
41	0.02	3.408	78	1.922	5438
41	1.16	3.315	78	1.875	5562
41	2.42	3.222	78	1.828	4991
41	3.6	3.269	78	1.852	5333
41	4.91	3.176	78	1.805	5574
41	6.12	3.083	78	1.758	5580
41	7.35	2.989	78	1.711	5536
41	8.61	2.942	78	1.688	5307
41	9.86	2.942	78	1.688	5324
41	11.12	2.895	78	1.664	5461
41	12.36	2.989	78	1.711	5225
41	13.58	2.942	78	1.688	5243
41	14.85	2.895	78	1.664	5312
41	16.12	2.753	78	1.594	5216
41	17.31	2.942	78	1.688	4991
41	18.68	3.129	78	1.781	4752
41	19.84	3.036	78	1.734	5684
41	21.14	2.989	78	1.711	5008
41	22.44	2.942	78	1.688	5188
41	23.56	2.895	78	1.664	5031
41	24.82	2.8	78	1.617	5165
41	26.04	2.8	78	1.617	5270
41	27.29	2.8	78	1.617	4518
41	28.46	2.942	78	1.688	4765
41	29.74	3.129	78	1.781	3958
41	30.98	3.269	78	1.852	4733
41	32.24	3.408	78	1.922	4749
41	33.5	3.454	78	1.945	3666
41	34.77	3.454	78	1.945	4502
41	35.98	3.454	78	1.945	5039
41	37.23	3.5	78	1.969	4412
41	38.47	3.638	78	2.039	5033
42	1.12	3.592	80	2.016	4686
42	2.35	3.408	80	1.922	5002
42	3.63	3.362	80	1.898	4800
42	4.8	3.269	80	1.852	4863
42	6.08	3.315	80	1.875	5099
42	7.31	3.176	80	1.805	5158
42	8.53	3.176	80	1.805	5207
42	9.81	3.315	80	1.875	4683
42	11.12	3.315	80	1.875	2926

42	12.27	3.454	80	1.945	4568
42	13.51	3.454	80	1.945	5031
42	14.73	3.408	80	1.922	4523
42	16.01	3.176	80	1.805	4589
42	17.16	3.083	80	1.758	4425
42	18.46	3.362	80	1.898	4609
42	19.76	3.315	80	1.875	4796
42	20.93	3.083	80	1.758	5224
42	22.29	2.942	80	1.688	5437
42	23.5	2.942	80	1.688	5144
42	24.76	2.942	80	1.688	5351
42	26.01	2.895	80	1.664	5136
42	27.21	2.848	80	1.641	5460
42	28.47	2.848	80	1.641	4623
42	29.74	2.848	80	1.641	5504
42	30.98	2.942	80	1.688	5403
42	32.19	3.083	80	1.758	5159
42	33.43	3.269	80	1.852	4928
42	34.67	3.362	80	1.898	5071
42	35.98	3.362	80	1.898	5168
42	37.17	3.315	80	1.875	5465
42	38.44	3.408	80	1.922	5023
43	1.17	3.5	82	1.969	4987
43	2.43	3.362	82	1.898	5253
43	3.63	3.362	82	1.898	5582
43	4.88	3.408	82	1.922	5291
43	6.13	3.315	82	1.875	5283
43	7.36	3.269	82	1.852	5525
43	8.63	3.222	82	1.828	6122
43	9.85	3.083	82	1.758	5634
43	11.09	3.083	82	1.758	5256
43	12.33	3.129	82	1.781	5555
43	13.58	3.222	82	1.828	5219
43	14.84	3.222	82	1.828	5376
43	16.11	3.129	82	1.781	5551
43	17.31	2.989	82	1.711	5655
43	18.63	3.083	82	1.758	5620
43	19.83	3.129	82	1.781	5304
43	21.13	2.942	82	1.688	5330
43	22.43	2.989	82	1.711	5253
43	23.55	2.942	82	1.688	4848
43	24.85	2.942	82	1.688	5301
43	26.06	2.895	82	1.664	5515
43	27.29	2.848	82	1.641	5520
43	28.5	2.8	82	1.617	5268
43	29.74	2.753	82	1.594	5490
43	31.07	2.895	82	1.664	4802

43	32.34	3.129	82	1.781	4749
43	33.58	3.176	82	1.805	5798
43	34.82	3.129	82	1.781	4811
43	36	3.176	82	1.805	4961
43	37.31	3.176	82	1.805	5963
43	38.58	3.362	82	1.898	4570
44	1.14	3.454	84	1.945	6098
44	2.34	3.315	84	1.875	5682
44	3.64	3.269	84	1.852	5718
44	4.84	3.222	84	1.828	5869
44	4.85	3.222	84	1.828	5786
44	6.08	3.222	84	1.828	5666
44	7.32	3.176	84	1.805	5632
44	8.55	3.083	84	1.758	5820
44	9.85	3.036	84	1.734	6056
44	11.06	3.036	84	1.734	5844
44	12.31	3.083	84	1.758	5585
44	13.55	3.129	84	1.781	5635
44	14.75	3.083	84	1.758	5178
44	16.04	2.989	84	1.711	4968
44	17.21	2.989	84	1.711	5533
44	18.48	2.989	84	1.711	5446
44	19.79	3.129	84	1.781	4192
44	21.02	2.942	84	1.688	4934
44	22.32	2.942	84	1.688	5194
44	23.54	2.848	84	1.641	5096
44	24.79	2.895	84	1.664	5432
44	26.01	2.8	84	1.617	5378
44	27.26	2.753	84	1.594	5304
44	28.49	2.706	84	1.57	5518
44	29.75	2.658	84	1.547	5604
44	30.96	2.706	84	1.57	4797
44	32.2	2.848	84	1.641	5666
44	33.48	2.942	84	1.688	5703
44	34.7	2.989	84	1.711	4552
44	35.98	2.895	84	1.664	4530
44	37.18	3.036	84	1.734	4910
44	38.46	3.315	84	1.875	4915
45	1.24	3.408	86	1.922	5164
45	2.49	3.362	86	1.898	4629
45	3.69	3.362	86	1.898	5468
45	4.9	3.269	86	1.852	5659
45	6.12	3.176	86	1.805	5085
45	7.4	3.269	86	1.852	6150
45	8.64	3.129	86	1.781	5789
45	9.85	3.083	86	1.758	6167
45	11.14	3.083	86	1.758	5847

45	12.34	3.036	86	1.734	5671
45	13.64	3.083	86	1.758	5251
45	14.83	3.129	86	1.781	5083
45	16.11	3.129	86	1.781	5459
45	17.32	2.989	86	1.711	5552
45	18.57	3.083	86	1.758	5275
45	19.85	3.176	86	1.805	4925
45	21.15	2.989	86	1.711	5135
45	22.42	3.036	86	1.734	5301
45	23.58	2.942	86	1.688	4937
45	24.87	2.848	86	1.641	5187
45	26.06	2.753	86	1.594	5782
45	27.33	2.658	86	1.547	5463
45	28.56	2.61	86	1.523	5028
45	29.76	2.61	86	1.523	5322
45	31.07	2.753	86	1.594	5171
45	32.31	2.895	86	1.664	4947
45	33.57	3.036	86	1.734	3991
45	34.78	3.036	86	1.734	3846
45	36	3.036	86	1.734	3398
45	37.29	3.176	86	1.805	4196
45	38.52	3.315	86	1.875	4758
46	1.1	3.546	88	1.992	5026
46	2.3	3.362	88	1.898	5290
46	3.6	3.269	88	1.852	4455
46	4.81	3.362	88	1.898	3374
46	6.02	3.222	88	1.828	4869
46	7.29	3.083	88	1.758	5073
46	8.54	3.129	88	1.781	5190
46	9.8	3.129	88	1.781	4959
46	11.03	3.362	88	1.898	4059
46	12.27	3.362	88	1.898	4259
46	13.52	3.362	88	1.898	3866
46	14.75	3.454	88	1.945	3867
46	16.02	3.315	88	1.875	4308
46	17.22	3.362	88	1.898	4378
46	18.45	3.362	88	1.898	3963
46	19.75	3.408	88	1.922	4243
46	21.06	3.036	88	1.734	5396
46	22.29	2.942	88	1.688	5409
46	23.47	2.848	88	1.641	5220
46	24.77	2.753	88	1.594	5840
46	25.96	2.658	88	1.547	6062
46	27.21	2.466	88	1.453	6286
46	28.43	2.466	88	1.453	6666
46	29.71	2.466	88	1.453	6520
46	30.9	2.466	88	1.453	5951

46	32.18	2.706	88	1.57	5824
46	33.45	2.753	88	1.594	5029
46	34.65	2.8	88	1.617	5209
46	35.86	2.8	88	1.617	4773
46	37.08	2.989	88	1.711	4887
46	38.34	2.895	88	1.664	3896
47	0.39	3.222	90	1.828	5347
47	0.87	3.222	90	1.828	5095
47	1.28	3.129	90	1.781	5153
47	1.71	3.083	90	1.758	5759
47	2.13	2.895	90	1.664	4844
47	2.52	2.895	90	1.664	5965
47	2.53	2.706	90	1.57	5763
47	2.85	2.658	90	1.547	6070
47	3.27	2.658	90	1.547	6082
47	3.73	2.658	90	1.547	5961
47	4.1	2.753	90	1.594	4977
47	4.5	2.848	90	1.641	5377
47	4.94	2.848	90	1.641	5414
47	5.37	2.848	90	1.641	5010
47	5.75	2.848	90	1.641	5368
47	6.15	2.848	90	1.641	5350
47	6.6	2.8	90	1.617	5564
47	6.98	2.989	90	1.711	4453
47	7.41	2.61	90	1.523	3918
47	7.8	2.8	90	1.617	5557
47	8.23	2.8	90	1.617	5696
47	8.69	2.562	90	1.5	3147
47	9.09	2.61	90	1.523	6573
47	9.5	2.753	90	1.594	5226
47	9.9	2.658	90	1.547	6600
47	10.34	2.61	90	1.523	6718
47	10.71	2.706	90	1.57	5383
47	11.19	2.514	90	1.477	6032
47	11.55	2.61	90	1.523	6135
47	12	2.61	90	1.523	5886
47	12.41	2.466	90	1.453	6553
47	12.77	2.418	90	1.43	6930
47	13.22	2.418	90	1.43	6520
47	13.66	2.222	90	1.336	7557
47	14.02	2.222	90	1.336	7887
47	14.44	2.32	90	1.383	6856
47	14.85	2.073	90	1.266	8043
47	15.28	2.123	90	1.289	8745
47	15.76	2.271	90	1.359	7185
47	16.16	2.073	90	1.266	8206
47	16.56	2.123	90	1.289	7603

47	17.05	2.271	90	1.359	6895
47	17.41	2.123	90	1.289	8060
47	17.86	2.173	90	1.313	7927
47	18.21	2.32	90	1.383	5911
47	18.62	2.271	90	1.359	7516
47	18.63	2.271	90	1.359	7604
47	19.05	2.418	90	1.43	5807
47	19.95	2.369	90	1.406	6801
47	21.22	2.466	90	1.453	6199
47	22.43	2.658	90	1.547	5593
47	23.69	2.562	90	1.5	6040
47	24.93	2.562	90	1.5	5571
47	26.14	2.706	90	1.57	5447
47	26.15	2.562	90	1.5	5752
47	27.4	2.562	90	1.5	5160
47	28.64	2.8	90	1.617	4854
47	28.65	2.753	90	1.594	5374
47	29.86	2.61	90	1.523	5392
47	31.11	2.848	90	1.641	4692
47	32.36	2.848	90	1.641	4653
47	33.66	2.706	90	1.57	5338
47	34.83	2.753	90	1.594	5188
47	36.07	2.848	90	1.641	4298
47	37.37	2.895	90	1.664	4824
47	38.57	2.942	90	1.688	4897
48	0.22	2.848	92	1.641	4855
48	0.61	2.8	92	1.617	4678
48	0.62	2.8	92	1.617	4650
48	1.06	2.895	92	1.664	4488
48	1.52	2.658	92	1.547	5208
48	1.87	2.706	92	1.57	4674
48	2.32	2.753	92	1.594	5053
48	2.73	2.706	92	1.57	4819
48	3.17	2.706	92	1.57	5282
48	3.54	2.848	92	1.641	4941
48	3.97	2.658	92	1.547	5632
48	4.45	2.706	92	1.57	5017
48	4.78	2.753	92	1.594	5206
48	5.19	2.706	92	1.57	5368
48	5.65	2.658	92	1.547	4777
48	5.96	2.8	92	1.617	4533
48	6.46	2.706	92	1.57	5183
48	6.85	2.562	92	1.5	5831
48	7.22	2.61	92	1.523	5328
48	7.7	2.514	92	1.477	5798
48	8.11	2.514	92	1.477	5936
48	8.48	2.562	92	1.5	5890

48	8.9	2.369	92	1.406	6279
48	9.31	2.418	92	1.43	6278
48	9.72	2.466	92	1.453	6004
48	10.16	2.418	92	1.43	5669
48	10.56	2.418	92	1.43	5832
48	10.95	2.514	92	1.477	5676
48	11.39	2.418	92	1.43	6001
48	11.77	2.466	92	1.453	5723
48	12.19	2.61	92	1.523	5483
48	12.59	2.514	92	1.477	5885
48	13.04	2.514	92	1.477	5732
48	13.45	2.706	92	1.57	5160
48	13.88	2.658	92	1.547	5862
48	14.25	2.61	92	1.523	5750
48	14.72	2.706	92	1.57	5151
48	15.14	2.61	92	1.523	5749
48	15.51	2.61	92	1.523	5838
48	15.93	2.658	92	1.547	5485
48	16.32	2.61	92	1.523	5514
48	16.74	2.562	92	1.5	6150
48	17.22	2.61	92	1.523	5309
48	17.62	2.562	92	1.5	6086
48	18.03	2.562	92	1.5	5731
48	18.42	2.658	92	1.547	5374
48	18.85	2.562	92	1.5	5926
48	19.28	2.706	92	1.57	5044
48	19.66	2.895	92	1.664	4601
48	20.15	2.706	92	1.57	4960
48	20.57	2.61	92	1.523	5713
48	21.01	2.658	92	1.547	4904
48	21.39	2.514	92	1.477	5845
48	21.78	2.562	92	1.5	5414
48	22.19	2.706	92	1.57	5410
48	22.58	2.514	92	1.477	6153
48	23.07	2.514	92	1.477	6165
48	23.44	2.61	92	1.523	5352
48	23.83	2.418	92	1.43	5634
48	24.28	2.514	92	1.477	5959
48	24.7	2.562	92	1.5	5238
48	25.11	2.369	92	1.406	6189
48	25.53	2.32	92	1.383	6587
48	25.91	2.369	92	1.406	5909
48	26.35	2.123	92	1.289	7501
48	26.78	2.123	92	1.289	7138
48	27.16	2.222	92	1.336	6986
48	27.59	2.023	92	1.242	8329
48	28	1.973	92	1.219	8885

48	28.37	2.073	92	1.266	7061
48	28.83	1.871	92	1.172	9029
48	29.21	1.871	92	1.172	9632
48	29.62	1.973	92	1.219	8500
48	30.04	1.922	92	1.195	8460
48	30.44	1.973	92	1.219	8251
48	30.86	2.123	92	1.289	6844
48	31.3	2.123	92	1.289	7795
48	31.7	2.222	92	1.336	7535
48	32.14	2.369	92	1.406	6159
48	32.54	2.271	92	1.359	6728
48	32.93	2.32	92	1.383	6557
48	33.37	2.514	92	1.477	5157
48	33.81	2.466	92	1.453	5396
48	34.18	2.418	92	1.43	5284
48	34.59	2.61	92	1.523	5043
48	35	2.466	92	1.453	5869
48	35.4	2.562	92	1.5	5058
48	35.82	2.706	92	1.57	4953
48	36.27	2.61	92	1.523	4988
48	36.68	2.61	92	1.523	5303
48	37.04	2.8	92	1.617	4177
48	37.43	2.753	92	1.594	4804
48	37.86	2.753	92	1.594	4569
48	37.87	2.753	92	1.594	4438
48	38.27	2.989	92	1.711	4218
49	0.33	3.129	94	1.781	4844
49	0.74	2.895	94	1.664	4812
49	1.21	2.8	94	1.617	5367
49	1.64	2.895	94	1.664	5426
49	2.09	2.706	94	1.57	4984
49	2.44	2.8	94	1.617	5454
49	2.83	2.895	94	1.664	4849
49	3.22	2.658	94	1.547	5675
49	3.68	2.8	94	1.617	4755
49	4.11	2.8	94	1.617	4816
49	4.52	2.658	94	1.547	5304
49	4.92	2.706	94	1.57	4904
49	5.33	2.8	94	1.617	4720
49	5.7	2.562	94	1.5	5473
49	6.13	2.562	94	1.5	5618
49	6.56	2.658	94	1.547	5312
49	6.99	2.514	94	1.477	6133
49	7.36	2.514	94	1.477	6139
49	7.85	2.562	94	1.5	5733
49	8.21	2.418	94	1.43	6088
49	8.65	2.466	94	1.453	6669

49	9.08	2.562	94	1.5	6022
49	9.5	2.418	94	1.43	6456
49	9.92	2.418	94	1.43	5734
49	10.34	2.61	94	1.523	5241
49	10.74	2.514	94	1.477	5572
49	11.17	2.562	94	1.5	5627
49	11.56	2.706	94	1.57	5047
49	11.99	2.61	94	1.523	5475
49	12.42	2.61	94	1.523	5558
49	12.81	2.8	94	1.617	5119
49	13.23	2.658	94	1.547	4996
49	13.67	2.706	94	1.57	5125
49	14.07	2.8	94	1.617	4852
49	14.48	2.706	94	1.57	4788
49	14.9	2.658	94	1.547	5224
49	15.32	2.848	94	1.641	4666
49	15.76	2.753	94	1.594	5068
49	16.18	2.753	94	1.594	5136
49	16.55	2.8	94	1.617	4823
49	17.02	2.753	94	1.594	3968
49	17.45	2.8	94	1.617	4691
49	17.83	2.942	94	1.688	4392
49	18.23	2.8	94	1.617	4657
49	18.66	2.848	94	1.641	4079
49	19.07	2.942	94	1.688	4312
49	19.51	2.942	94	1.688	4206
49	19.95	2.8	94	1.617	5319
49	19.96	2.753	94	1.594	5095
49	20.37	2.8	94	1.617	4941
49	20.78	2.658	94	1.547	5410
49	21.22	2.658	94	1.547	5739
49	21.58	2.753	94	1.594	4927
49	22	2.61	94	1.523	5546
49	22.39	2.562	94	1.5	5959
49	22.87	2.706	94	1.57	5101
49	23.29	2.514	94	1.477	5909
49	23.69	2.562	94	1.5	5989
49	24.1	2.658	94	1.547	5495
49	24.46	2.514	94	1.477	6053
49	24.89	2.466	94	1.453	6515
49	25.35	2.466	94	1.453	5518
49	25.71	2.369	94	1.406	7068
49	26.14	2.369	94	1.406	7144
49	26.51	2.418	94	1.43	6494
49	26.97	2.222	94	1.336	7398
49	27.38	2.173	94	1.313	7858
49	27.76	2.32	94	1.383	6481

49	28.18	2.123	94	1.289	8122
49	28.61	2.123	94	1.289	7857
49	29.02	2.222	94	1.336	6873
49	29.45	2.123	94	1.289	8124
49	29.85	2.173	94	1.313	7880
49	30.26	2.32	94	1.383	6391
49	30.67	2.222	94	1.336	6920
49	31.09	2.271	94	1.359	6967
49	31.5	2.466	94	1.453	6158
49	31.89	2.271	94	1.359	6660
49	32.35	2.369	94	1.406	6401
49	32.72	2.562	94	1.5	5833
49	33.12	2.418	94	1.43	5569
49	33.62	2.514	94	1.477	5528
49	33.92	2.658	94	1.547	4670
49	34.39	2.514	94	1.477	5158
49	34.85	2.61	94	1.523	5355
49	35.18	2.753	94	1.594	4738
49	35.6	2.61	94	1.523	4893
49	36.07	2.61	94	1.523	5592
49	36.42	2.8	94	1.617	4484
49	36.89	2.848	94	1.641	4576
49	37.31	2.753	94	1.594	4790
49	37.72	3.036	94	1.734	4420
49	38.1	2.989	94	1.711	4347
49	38.52	3.129	94	1.781	4521
50	0.14	3.362	96	1.898	4262
50	0.58	3.222	96	1.828	4993
50	0.97	3.269	96	1.852	4981
50	1.37	3.129	96	1.781	4801
50	1.78	2.942	96	1.688	4904
50	2.21	3.036	96	1.734	5161
50	2.62	2.8	96	1.617	5216
50	3.05	2.753	96	1.594	5203
50	3.45	2.8	96	1.617	4863
50	3.9	2.753	96	1.594	5203
50	4.31	2.753	96	1.594	5572
50	4.69	2.753	96	1.594	5067
50	5.12	2.706	96	1.57	5399
50	5.62	2.61	96	1.523	5523
50	5.93	2.706	96	1.57	4644
50	6.36	2.514	96	1.477	5797
50	6.78	2.562	96	1.5	6001
50	7.19	2.658	96	1.547	5614
50	7.6	2.418	96	1.43	6452
50	7.99	2.514	96	1.477	6125
50	8.41	2.514	96	1.477	6017

50	8.82	2.369	96	1.406	6622
50	9.23	2.369	96	1.406	6637
50	9.67	2.514	96	1.477	5740
50	10.07	2.369	96	1.406	6949
50	10.47	2.418	96	1.43	6579
50	10.9	2.562	96	1.5	5801
50	11.33	2.466	96	1.453	6152
50	11.8	2.466	96	1.453	6276
50	12.16	2.658	96	1.547	5352
50	12.6	2.562	96	1.5	5938
50	13.01	2.61	96	1.523	5813
50	13.41	2.753	96	1.594	5234
50	13.82	2.658	96	1.547	5876
50	14.21	2.61	96	1.523	5692
50	14.65	2.8	96	1.617	4885
50	15.11	2.706	96	1.57	5263
50	15.48	2.658	96	1.547	5431
50	15.88	2.8	96	1.617	5870
50	16.27	2.658	96	1.547	5616
50	16.7	2.706	96	1.57	6043
50	17.17	2.8	96	1.617	5538
50	17.55	2.658	96	1.547	5975
50	17.96	2.658	96	1.547	5709
50	18.37	2.8	96	1.617	5339
50	18.77	2.706	96	1.57	5421
50	19.17	2.8	96	1.617	5218
50	19.61	2.989	96	1.711	4875
50	20.05	2.8	96	1.617	5210
50	20.48	2.706	96	1.57	5536
50	20.88	2.8	96	1.617	5498
50	21.3	2.658	96	1.547	5577
50	21.73	2.658	96	1.547	5968
50	22.14	2.848	96	1.641	5239
50	22.54	2.658	96	1.547	5534
50	23.02	2.61	96	1.523	5752
50	23.38	2.753	96	1.594	5289
50	23.76	2.562	96	1.5	5716
50	24.22	2.61	96	1.523	6035
50	24.63	2.706	96	1.57	5373
50	25.04	2.562	96	1.5	6012
50	25.44	2.562	96	1.5	6291
50	25.84	2.562	96	1.5	5958
50	26.27	2.418	96	1.43	6602
50	26.68	2.369	96	1.406	6689
50	27.07	2.514	96	1.477	5870
50	27.51	2.32	96	1.383	6770
50	27.93	2.369	96	1.406	6860

50	28.33	2.514	96	1.477	6197
50	28.74	2.271	96	1.359	6958
50	29.12	2.32	96	1.383	6904
50	29.55	2.369	96	1.406	5890
50	29.98	2.222	96	1.336	7740
50	30.38	2.271	96	1.359	7210
50	30.8	2.418	96	1.43	6163
50	31.24	2.369	96	1.406	6846
50	31.59	2.123	96	1.289	8015
50	32.07	2.562	96	1.5	6122
50	32.45	2.418	96	1.43	6406
50	32.88	2.466	96	1.453	6268
50	33.3	2.514	96	1.477	5981
50	33.72	2.514	96	1.477	6176
50	34.1	2.514	96	1.477	5902
50	34.51	2.658	96	1.547	5228
50	34.88	2.466	96	1.453	5824
50	35.33	2.514	96	1.477	5908
50	35.77	2.706	96	1.57	5212
50	36.2	2.61	96	1.523	5061
50	36.6	2.658	96	1.547	5267
50	37	2.848	96	1.641	4700
50	37.37	2.895	96	1.664	4410
50	37.83	2.895	96	1.664	4551
50	38.26	3.176	96	1.805	3984
51	0.31	3.269	98	1.852	4662
51	0.76	3.129	98	1.781	5353
51	1.21	3.036	98	1.734	5132
51	1.63	3.036	98	1.734	4886
51	2.08	2.895	98	1.664	5298
51	2.44	2.8	98	1.617	5120
51	2.83	2.562	98	1.5	5473
51	3.23	2.848	98	1.641	5007
51	3.62	2.706	98	1.57	5213
51	4.09	2.848	98	1.641	5206
51	4.54	2.706	98	1.57	5624
51	4.92	2.61	98	1.523	5893
51	5.32	2.8	98	1.617	5154
51	5.71	2.562	98	1.5	5679
51	6.14	2.61	98	1.523	6090
51	6.54	2.61	98	1.523	5767
51	7	2.271	98	1.359	7236
51	7.4	2.418	98	1.43	6678
51	7.89	2.514	98	1.477	6111
51	8.23	2.418	98	1.43	6881
51	8.64	2.466	98	1.453	6993
51	9.09	2.514	98	1.477	6202

51	9.5	2.369	98	1.406	6606
51	9.92	2.418	98	1.43	6425
51	10.33	2.562	98	1.5	6041
51	10.73	2.514	98	1.477	5909
51	11.14	2.562	98	1.5	6336
51	11.53	2.706	98	1.57	5425
51	11.94	2.61	98	1.523	5603
51	12.41	2.61	98	1.523	5917
51	12.81	2.848	98	1.641	5225
51	13.23	2.753	98	1.594	5582
51	13.65	2.706	98	1.57	5078
51	14.06	2.8	98	1.617	5300
51	14.48	2.706	98	1.57	5876
51	14.86	2.753	98	1.594	5618
51	15.31	2.848	98	1.641	5545
51	15.73	2.706	98	1.57	5745
51	16.12	2.753	98	1.594	5901
51	16.48	2.895	98	1.664	5843
51	16.93	2.706	98	1.57	5813
51	17.35	2.8	98	1.617	6141
51	17.77	2.895	98	1.664	5453
51	18.22	2.8	98	1.617	5572
51	18.67	2.895	98	1.664	5237
51	19.06	3.083	98	1.758	4902
51	19.51	2.895	98	1.664	4750
51	19.96	2.848	98	1.641	5305
51	20.41	2.895	98	1.664	5506
51	20.78	2.706	98	1.57	6007
51	21.18	2.706	98	1.57	5650
51	21.58	2.848	98	1.641	5452
51	22.05	2.706	98	1.57	5626
51	22.44	2.706	98	1.57	5495
51	22.86	2.895	98	1.664	5012
51	23.3	2.706	98	1.57	5462
51	23.68	2.658	98	1.547	6007
51	24.06	2.8	98	1.617	5641
51	24.46	2.658	98	1.547	5581
51	24.95	2.658	98	1.547	6263
51	25.34	2.706	98	1.57	5395
51	25.76	2.562	98	1.5	6348
51	26.18	2.562	98	1.5	6333
51	26.56	2.61	98	1.523	5547
51	26.95	2.466	98	1.453	6583
51	27.37	2.418	98	1.43	6504
51	27.74	2.562	98	1.5	5857
51	28.21	2.418	98	1.43	6822
51	28.63	2.369	98	1.406	6638

51	29.05	2.418	98	1.43	6189
51	29.44	2.32	98	1.383	7122
51	29.81	2.32	98	1.383	7341
51	30.26	2.466	98	1.453	6234
51	30.68	2.32	98	1.383	6752
51	31.08	2.369	98	1.406	6946
51	31.5	2.562	98	1.5	6182
51	31.92	2.418	98	1.43	6561
51	32.31	2.562	98	1.5	5990
51	32.72	2.658	98	1.547	5946
51	33.13	2.514	98	1.477	5771
51	33.57	2.658	98	1.547	5639
51	33.89	2.706	98	1.57	5443
51	34.39	2.658	98	1.547	5419
51	34.8	2.706	98	1.57	5401
51	35.2	2.848	98	1.641	5515
51	35.6	2.8	98	1.617	5441
51	36.02	2.848	98	1.641	5114
51	36.45	3.036	98	1.734	4609
51	36.88	2.942	98	1.688	4890
51	37.3	3.176	98	1.805	4811
51	37.73	3.222	98	1.828	4916
51	38.17	3.222	98	1.828	5226
51	38.54	3.269	98	1.852	4915
52	0.22	3.176	100	1.805	4812
52	0.63	3.129	100	1.781	5221
52	1.06	3.222	100	1.828	5177
52	1.43	3.083	100	1.758	5000
52	1.87	2.942	100	1.688	4959
52	2.29	2.989	100	1.711	4798
52	2.68	2.895	100	1.664	5178
52	3.13	2.8	100	1.617	5017
52	3.55	2.753	100	1.594	5372
52	3.95	2.706	100	1.57	4432
52	4.37	2.706	100	1.57	5187
52	4.77	2.848	100	1.641	4850
52	5.19	2.706	100	1.57	5235
52	5.68	2.706	100	1.57	5441
52	5.99	2.658	100	1.547	5111
52	6.41	2.562	100	1.5	5723
52	6.83	2.514	100	1.477	5536
52	7.24	2.658	100	1.547	5223
52	7.61	2.173	100	1.313	7154
52	8.08	2.514	100	1.477	6359
52	8.49	2.562	100	1.5	5824
52	8.88	2.418	100	1.43	6040
52	9.29	2.418	100	1.43	6041

52	9.74	2.562	100	1.5	5549
52	10.11	2.466	100	1.453	6139
52	10.5	2.466	100	1.453	6060
52	10.92	2.514	100	1.477	6034
52	11.34	2.466	100	1.453	6018
52	11.83	2.514	100	1.477	5689
52	12.17	2.61	100	1.523	5452
52	12.62	2.562	100	1.5	5849
52	13.02	2.514	100	1.477	6060
52	13.4	2.753	100	1.594	5400
52	13.77	2.562	100	1.5	5630
52	14.22	2.658	100	1.547	5614
52	14.62	2.8	100	1.617	4983
52	15.08	2.658	100	1.547	5515
52	15.51	2.658	100	1.547	5234
52	15.9	2.848	100	1.641	5043
52	16.25	2.753	100	1.594	5316
52	16.71	2.8	100	1.617	5451
52	17.12	2.8	100	1.617	5623
52	17.53	2.658	100	1.547	5460
52	17.96	2.706	100	1.57	5440
52	18.38	2.848	100	1.641	4982
52	18.76	2.706	100	1.57	5379
52	19.16	2.8	100	1.617	5063
52	19.62	2.989	100	1.711	5017
52	20.06	2.848	100	1.641	5257
52	20.47	2.753	100	1.594	5102
52	20.87	2.848	100	1.641	5231
52	21.34	2.706	100	1.57	5249
52	21.77	2.658	100	1.547	5772
52	22.19	2.8	100	1.617	4719
52	22.62	2.658	100	1.547	5243
52	23.05	2.706	100	1.57	5086
52	23.46	2.753	100	1.594	5358
52	23.83	2.61	100	1.523	5899
52	24.24	2.658	100	1.547	5630
52	24.67	2.753	100	1.594	5239
52	25.05	2.658	100	1.547	5676
52	25.49	2.61	100	1.523	5791
52	25.9	2.658	100	1.547	5589
52	26.33	2.514	100	1.477	5845
52	26.73	2.514	100	1.477	6245
52	27.15	2.61	100	1.523	5337
52	27.6	2.418	100	1.43	6106
52	28.01	2.418	100	1.43	6313
52	28.4	2.514	100	1.477	5941
52	28.81	2.271	100	1.359	6503

52	29.21	2.32	100	1.383	6515
52	29.62	2.418	100	1.43	5502
52	30.04	2.271	100	1.359	6738
52	30.44	2.271	100	1.359	6573
52	30.87	2.418	100	1.43	5836
52	31.29	2.32	100	1.383	6162
52	31.65	2.32	100	1.383	6447
52	32.11	2.466	100	1.453	6094
52	32.52	2.369	100	1.406	5988
52	32.97	2.466	100	1.453	5836
52	33.37	2.562	100	1.5	5150
52	33.8	2.61	100	1.523	5153
52	34.2	2.514	100	1.477	6024
52	34.6	2.706	100	1.57	5226
52	34.98	2.562	100	1.5	5704
52	35.45	2.61	100	1.523	5423
52	35.87	2.848	100	1.641	4912
52	36.27	2.706	100	1.57	5270
52	36.69	2.8	100	1.617	4978
52	37.1	3.036	100	1.734	4418
52	37.46	2.942	100	1.688	4955
52	37.91	3.083	100	1.758	4266
52	38.37	3.222	100	1.828	3824
53	0.36	3.129	102	1.781	4491
53	0.71	2.989	102	1.711	5613
53	1.17	3.036	102	1.734	4892
53	1.66	3.036	102	1.734	4883
53	2.08	2.848	102	1.641	5018
53	2.44	2.848	102	1.641	5265
53	2.84	2.942	102	1.688	4626
53	3.24	2.8	102	1.617	5340
53	3.64	2.8	102	1.617	4977
53	4.08	2.942	102	1.688	5181
53	4.58	2.8	102	1.617	5214
53	4.95	2.753	102	1.594	5047
53	5.34	2.8	102	1.617	4835
53	5.75	2.658	102	1.547	5436
53	6.15	2.658	102	1.547	5750
53	6.56	2.706	102	1.57	5316
53	6.99	2.466	102	1.453	5971
53	7.41	2.61	102	1.523	5594
53	7.88	2.658	102	1.547	5339
53	8.23	2.562	102	1.5	5878
53	8.63	2.514	102	1.477	6156
53	9.08	2.706	102	1.57	5466
53	9.48	2.514	102	1.477	5758
53	9.89	2.562	102	1.5	5428

53	10.31	2.706	102	1.57	5218
53	10.72	2.562	102	1.5	5413
53	11.15	2.562	102	1.5	5768
53	11.52	2.706	102	1.57	4782
53	11.91	2.562	102	1.5	5580
53	12.4	2.61	102	1.523	5485
53	12.81	2.658	102	1.547	4851
53	13.21	2.562	102	1.5	5586
53	13.66	2.658	102	1.547	5508
53	14.04	2.706	102	1.57	5053
53	14.51	2.61	102	1.523	5462
53	14.9	2.562	102	1.5	5334
53	15.34	2.8	102	1.617	5079
53	15.73	2.61	102	1.523	5661
53	16.11	2.61	102	1.523	5577
53	16.53	2.706	102	1.57	5092
53	16.96	2.658	102	1.547	5297
53	17.39	2.706	102	1.57	5298
53	17.78	2.895	102	1.664	4313
53	18.21	2.753	102	1.594	4506
53	18.69	2.895	102	1.664	4413
53	19.05	3.222	102	1.828	4699
53	19.47	3.083	102	1.758	4582
53	19.94	2.848	102	1.641	4974
53	20.41	2.942	102	1.688	5102
53	20.75	2.706	102	1.57	5221
53	21.14	2.753	102	1.594	5478
53	21.55	2.895	102	1.664	4926
53	21.98	2.753	102	1.594	5356
53	22.4	2.706	102	1.57	5330
53	22.8	2.8	102	1.617	4909
53	23.32	2.706	102	1.57	5221
53	23.65	2.706	102	1.57	5743
53	24	2.848	102	1.641	5229
53	24.44	2.706	102	1.57	5722
53	24.9	2.753	102	1.594	5530
53	25.27	2.8	102	1.617	5308
53	25.75	2.706	102	1.57	5496
53	26.11	2.658	102	1.547	5790
53	26.46	2.706	102	1.57	5513
53	26.87	2.562	102	1.5	5995
53	27.31	2.514	102	1.477	5740
53	27.66	2.658	102	1.547	5459
53	28.09	2.418	102	1.43	5647
53	28.55	2.418	102	1.43	5840
53	28.98	2.418	102	1.43	5550
53	29.37	2.271	102	1.359	6573

53	29.77	2.32	102	1.383	6532
53	30.2	2.418	102	1.43	6876
53	30.6	2.369	102	1.406	6727
53	31.02	2.369	102	1.406	6479
53	31.38	2.514	102	1.477	6149
53	31.85	2.466	102	1.453	6410
53	32.28	2.466	102	1.453	6275
53	32.67	2.61	102	1.523	6472
53	33.09	2.562	102	1.5	5448
53	33.51	2.514	102	1.477	6116
53	33.86	2.753	102	1.594	5666
53	34.33	2.562	102	1.5	5126
53	34.76	2.706	102	1.57	4670
53	35.16	2.753	102	1.594	6558
53	35.58	2.753	102	1.594	4943
53	35.99	2.895	102	1.664	4260
53	36.41	2.895	102	1.664	5987
53	36.84	3.036	102	1.734	4929
53	37.28	2.989	102	1.711	3849
53	37.67	3.129	102	1.781	5586
53	38.14	3.176	102	1.805	4589
53	38.53	3.269	102	1.852	4379
54	0.29	3.315	104	1.875	3230
54	0.7	3.315	104	1.875	3339
54	1.11	3.454	104	1.945	3823
54	1.5	3.176	104	1.805	3977
54	1.97	3.083	104	1.758	4465
54	2.33	3.176	104	1.805	4843
54	2.74	3.036	104	1.734	4824
54	3.2	3.083	104	1.758	5054
54	3.6	2.942	104	1.688	4501
54	4.01	2.989	104	1.711	4309
54	4.44	2.989	104	1.711	4866
54	4.82	3.083	104	1.758	4948
54	5.22	2.989	104	1.711	4984
54	5.72	2.942	104	1.688	5032
54	6.06	2.895	104	1.664	5628
54	6.5	2.8	104	1.617	5310
54	6.91	2.706	104	1.57	5749
54	7.3	2.8	104	1.617	6312
54	7.73	2.562	104	1.5	5569
54	8.2	2.706	104	1.57	5916
54	8.59	2.658	104	1.547	8076
54	8.96	2.562	104	1.5	5866
54	9.39	2.562	104	1.5	6259
54	9.8	2.562	104	1.5	7507
54	10.19	2.514	104	1.477	6098

54	10.57	2.562	104	1.5	6329
54	11	2.514	104	1.477	8342
54	11.42	2.466	104	1.453	6235
54	11.86	2.466	104	1.453	6423
54	12.27	2.514	104	1.477	7401
54	12.7	2.514	104	1.477	6140
54	13.16	2.514	104	1.477	6012
54	13.51	2.61	104	1.523	7851
54	13.86	2.514	104	1.477	5437
54	14.34	2.562	104	1.5	5712
54	14.73	2.61	104	1.523	7786
54	15.17	2.514	104	1.477	6133
54	15.63	2.562	104	1.5	6189
54	16.01	2.61	104	1.523	7856
54	16.31	2.562	104	1.5	5765
54	16.83	2.658	104	1.547	6316
54	17.22	2.61	104	1.523	8276
54	17.63	2.658	104	1.547	5783
54	18.05	2.658	104	1.547	5762
54	18.49	2.706	104	1.57	7867
54	18.86	2.658	104	1.547	5407
54	19.23	2.753	104	1.594	5098
54	19.72	2.848	104	1.641	6639
54	20.17	2.848	104	1.641	4998
54	20.58	2.8	104	1.617	5057
54	20.96	2.8	104	1.617	7162
54	21.42	2.8	104	1.617	5703
54	21.82	2.8	104	1.617	5285
54	22.24	2.848	104	1.641	7315
54	22.64	2.848	104	1.641	4982
54	23.06	2.848	104	1.641	5280
54	23.49	2.895	104	1.664	7045
54	23.85	2.8	104	1.617	4968
54	24.2	2.848	104	1.641	5028
54	24.68	2.848	104	1.641	6856
54	25.06	2.8	104	1.617	5194
54	25.5	2.8	104	1.617	5385
54	25.93	2.8	104	1.617	7098
54	26.38	2.753	104	1.594	5136
54	26.75	2.706	104	1.57	5568
54	27.19	2.706	104	1.57	7868
54	27.66	2.658	104	1.547	5284
54	28.05	2.61	104	1.523	5655
54	28.43	2.61	104	1.523	7608
54	28.85	2.418	104	1.43	6491
54	29.24	2.418	104	1.43	6296
54	29.66	2.418	104	1.43	8439

54	30.09	2.32	104	1.383	6819
54	30.46	2.32	104	1.383	6963
54	30.89	2.369	104	1.406	9110
54	31.3	2.32	104	1.383	6837
54	31.69	2.32	104	1.383	6896
54	32.17	2.514	104	1.477	7877
54	32.58	2.418	104	1.43	5980
54	32.99	2.466	104	1.453	6614
54	33.4	2.514	104	1.477	8819
54	33.82	2.514	104	1.477	6367
54	34.22	2.658	104	1.547	5833
54	34.61	2.61	104	1.523	6363
54	35.02	2.562	104	1.5	5866
54	35.49	2.753	104	1.594	5269
54	35.87	2.8	104	1.617	6172
54	36.29	2.8	104	1.617	4723
54	36.71	2.753	104	1.594	4882
54	37.13	2.895	104	1.664	4977
54	37.5	2.848	104	1.641	4933
54	37.93	2.989	104	1.711	4545
54	38.4	3.176	104	1.805	5292
55	0.26	3.176	106	1.805	6060
55	0.74	2.942	106	1.688	4995
55	1.16	2.989	106	1.711	4838
55	1.67	3.036	106	1.734	6766
55	2.07	2.989	106	1.711	5289
55	2.47	2.942	106	1.688	5552
55	2.85	2.942	106	1.688	6376
55	3.25	2.942	106	1.688	5213
55	3.7	2.895	106	1.664	5075
55	4.09	2.895	106	1.664	6221
55	4.58	2.8	106	1.617	5064
55	4.92	2.8	106	1.617	4821
55	5.31	2.8	106	1.617	6157
55	5.75	2.706	106	1.57	5168
55	6.14	2.753	106	1.594	5417
55	6.53	2.753	106	1.594	7403
55	6.99	2.658	106	1.547	5543
55	7.39	2.61	106	1.523	5504
55	7.85	2.562	106	1.5	6647
55	8.28	2.514	106	1.477	6232
55	8.65	2.514	106	1.477	6034
55	9.06	2.562	106	1.5	6334
55	9.48	2.514	106	1.477	5621
55	9.89	2.466	106	1.453	5906
55	10.36	2.514	106	1.477	6740
55	10.75	2.466	106	1.453	6672

55	11.13	2.418	106	1.43	6161
55	11.55	2.562	106	1.5	6295
55	11.93	2.418	106	1.43	6134
55	12.4	2.514	106	1.477	5779
55	12.82	2.658	106	1.547	4829
55	13.21	2.562	106	1.5	6155
55	13.63	2.562	106	1.5	5750
55	14.1	2.61	106	1.523	5131
55	14.51	2.514	106	1.477	6044
55	14.87	2.562	106	1.5	6040
55	15.4	2.562	106	1.5	4737
55	15.75	2.514	106	1.477	6009
55	15.76	2.514	106	1.477	5634
55	16.08	2.706	106	1.57	6066
55	16.55	2.562	106	1.5	5684
55	16.97	2.61	106	1.523	6184
55	17.33	2.706	106	1.57	5333
55	17.78	2.562	106	1.5	5349
55	18.23	2.658	106	1.547	5593
55	18.62	2.895	106	1.664	4876
55	19.03	2.8	106	1.617	5184
55	19.45	2.706	106	1.57	5432
55	19.86	2.848	106	1.641	4731
55	20.39	2.706	106	1.57	5575
55	20.77	2.706	106	1.57	5383
55	21.12	2.848	106	1.641	5051
55	21.52	2.706	106	1.57	5553
55	21.96	2.706	106	1.57	5377
55	22.36	2.848	106	1.641	4949
55	22.75	2.753	106	1.594	5050
55	23.3	2.753	106	1.594	4876
55	23.62	2.753	106	1.594	5505
55	23.96	2.848	106	1.641	5108
55	24.44	2.753	106	1.594	5234
55	24.85	2.706	106	1.57	5558
55	25.24	2.8	106	1.617	5446
55	25.74	2.61	106	1.523	5612
55	26.07	2.61	106	1.523	6240
55	26.41	2.658	106	1.547	4939
55	26.87	2.514	106	1.477	6151
55	27.28	2.514	106	1.477	6582
55	27.7	2.61	106	1.523	5917
55	28.15	2.418	106	1.43	5895
55	28.58	2.32	106	1.383	8290
55	28.98	2.418	106	1.43	5375
55	29.42	2.271	106	1.359	6993
55	29.8	2.173	106	1.313	9220

55	30.17	2.418	106	1.43	6452
55	30.64	2.222	106	1.336	7040
55	31.01	2.173	106	1.313	9622
55	31.38	2.418	106	1.43	6304
55	31.85	2.271	106	1.359	6914
55	32.28	2.32	106	1.383	9460
55	32.68	2.562	106	1.5	5942
55	33.07	2.466	106	1.453	6268
55	33.53	2.466	106	1.453	9237
55	33.87	2.658	106	1.547	5498
55	34.36	2.562	106	1.5	5637
55	34.75	2.658	106	1.547	8164
55	35.13	2.706	106	1.57	4767
55	35.58	2.658	106	1.547	5494
55	35.99	2.658	106	1.547	7470
55	36.39	2.848	106	1.641	4849
55	36.86	2.848	106	1.641	4811
55	37.27	2.848	106	1.641	6725
55	37.62	3.176	106	1.805	4399
55	38.09	3.083	106	1.758	4765
55	38.49	3.129	106	1.781	7022
56	0.31	3.269	108	1.852	4571
56	0.71	3.269	108	1.852	4767
56	1.12	3.315	108	1.875	4802
56	1.5	3.083	108	1.758	4815
56	1.92	3.083	108	1.758	5046
56	2.33	3.222	108	1.828	5417
56	2.71	2.989	108	1.711	4636
56	3.15	2.942	108	1.688	5796
56	3.58	3.129	108	1.781	4943
56	3.99	2.942	108	1.688	5152
56	4.37	2.895	108	1.664	6494
56	4.81	2.989	108	1.711	4849
56	5.19	2.895	108	1.664	5018
56	5.64	2.706	108	1.57	7629
56	6.04	2.942	108	1.688	3221
56	6.48	2.8	108	1.617	4478
56	6.84	2.706	108	1.57	7565
56	7.25	2.848	108	1.641	5219
56	7.7	2.658	108	1.547	5537
56	8.13	2.562	108	1.5	9184
56	8.55	2.706	108	1.57	5540
56	8.9	2.562	108	1.5	5913
56	9.34	2.514	108	1.477	8853
56	9.75	2.706	108	1.57	5188
56	10.11	2.514	108	1.477	5659
56	10.55	2.466	108	1.453	9181

56	10.96	2.658	108	1.547	5092
56	11.4	2.562	108	1.5	5738
56	11.85	2.514	108	1.477	8156
56	12.25	2.706	108	1.57	5086
56	12.67	2.61	108	1.523	5711
56	13.14	2.562	108	1.5	8827
56	13.5	2.706	108	1.57	4903
56	13.84	2.658	108	1.547	5723
56	14.27	2.658	108	1.547	8578
56	14.7	2.8	108	1.617	5289
56	15.1	2.61	108	1.523	5798
56	15.54	2.562	108	1.5	8944
56	15.93	2.753	108	1.594	4767
56	16.27	2.61	108	1.523	5759
56	16.77	2.562	108	1.5	8906
56	17.22	2.753	108	1.594	5492
56	17.59	2.61	108	1.523	5970
56	18.03	2.562	108	1.5	9269
56	18.43	2.848	108	1.641	5180
56	18.78	2.706	108	1.57	5564
56	19.21	2.753	108	1.594	8145
56	19.68	2.989	108	1.711	4725
56	20.09	2.848	108	1.641	5186
56	20.51	2.706	108	1.57	8293
56	20.94	2.848	108	1.641	5229
56	21.32	2.706	108	1.57	5566
56	21.76	2.658	108	1.547	8518
56	22.24	2.895	108	1.664	5107
56	22.57	2.753	108	1.594	5521
56	23	2.706	108	1.57	8058
56	23.46	2.848	108	1.641	4638
56	23.83	2.753	108	1.594	4336
56	24.18	2.706	108	1.57	7530
56	24.66	2.895	108	1.664	5107
56	25.06	2.753	108	1.594	5147
56	25.49	2.658	108	1.547	8018
56	25.93	2.942	108	1.688	5209
56	26.34	2.658	108	1.547	6189
56	26.74	2.514	108	1.477	9021
56	27.16	2.658	108	1.547	5774
56	27.63	2.514	108	1.477	5984
56	28	2.418	108	1.43	9066
56	28.38	2.61	108	1.523	5299
56	28.81	2.466	108	1.453	6065
56	29.19	2.369	108	1.406	9677
56	29.64	2.514	108	1.477	5755
56	30.06	2.369	108	1.406	6509

56	30.46	2.32	108	1.383	10324
56	30.89	2.562	108	1.5	5501
56	31.25	2.466	108	1.453	5649
56	31.64	2.418	108	1.43	9620
56	32.14	2.562	108	1.5	5678
56	32.56	2.418	108	1.43	5819
56	32.97	2.562	108	1.5	8844
56	33.37	2.658	108	1.547	5460
56	33.78	2.706	108	1.57	5344
56	34.19	2.61	108	1.523	7718
56	34.6	2.848	108	1.641	5151
56	34.98	2.658	108	1.547	5283
56	35.46	2.753	108	1.594	8233
56	35.86	2.895	108	1.664	5000
56	36.29	2.753	108	1.594	5572
56	36.69	2.848	108	1.641	6074
56	37.1	2.989	108	1.711	5032
56	37.51	2.989	108	1.711	4651
56	37.91	2.989	108	1.711	5292
56	38.36	3.222	108	1.828	4942
57	0.33	3.362	110	1.898	4528
57	0.74	3.129	110	1.781	3557
57	1.24	3.036	110	1.734	6126
57	1.63	3.176	110	1.805	4775
57	2.04	2.942	110	1.688	5057
57	2.5	2.895	110	1.664	7279
57	2.88	3.036	110	1.734	4968
57	3.25	2.942	110	1.688	5399
57	3.72	2.848	110	1.641	7269
57	4.13	2.989	110	1.711	4432
57	4.57	2.848	110	1.641	4500
57	4.97	2.753	110	1.594	7500
57	5.34	2.942	110	1.688	5463
57	5.74	2.706	110	1.57	5615
57	6.16	2.658	110	1.547	8156
57	6.54	2.848	110	1.641	5615
57	6.96	2.658	110	1.547	5807
57	7.4	2.514	110	1.477	7469
57	7.86	2.8	110	1.617	5337
57	8.29	2.658	110	1.547	5099
57	8.65	2.562	110	1.5	7962
57	9.04	2.753	110	1.594	4924
57	9.5	2.658	110	1.547	5362
57	9.92	2.61	110	1.523	7235
57	10.32	2.895	110	1.664	4312
57	10.72	2.753	110	1.594	4862
57	11.17	2.61	110	1.523	5961

57	11.51	2.848	110	1.641	4342
57	11.92	2.706	110	1.57	4915
57	12.39	2.706	110	1.57	4864
57	12.77	2.848	110	1.641	4488
57	13.21	2.753	110	1.594	4746
57	13.63	2.753	110	1.594	4823
57	14.02	2.895	110	1.664	4170
57	14.51	2.753	110	1.594	4671
57	14.92	2.8	110	1.617	5101
57	15.33	2.848	110	1.641	4608
57	15.73	2.753	110	1.594	4778
57	16.12	2.8	110	1.617	5067
57	16.53	2.895	110	1.664	4748
57	17.02	2.8	110	1.617	4963
57	17.34	2.848	110	1.641	5047
57	17.77	2.942	110	1.688	4774
57	18.23	2.848	110	1.641	5148
57	18.63	2.753	110	1.594	4836
57	19.04	2.8	110	1.617	4940
57	19.43	2.706	110	1.57	5551
57	19.87	2.562	110	1.5	5678
57	20.31	2.658	110	1.547	5530
57	20.77	2.514	110	1.477	6052
57	21.18	2.514	110	1.477	6411
57	21.58	2.61	110	1.523	5178
57	21.98	2.514	110	1.477	5988
57	22.37	2.466	110	1.453	5884
57	22.76	2.61	110	1.523	5216
57	23.28	2.466	110	1.453	6185
57	23.67	2.514	110	1.477	5978
57	24.04	2.706	110	1.57	5291
57	24.46	2.466	110	1.453	6203
57	24.89	2.466	110	1.453	6118
57	25.29	2.61	110	1.523	5784
57	25.71	2.466	110	1.453	6669
57	26.09	2.369	110	1.406	6014
57	26.45	2.562	110	1.5	5279
57	26.91	2.466	110	1.453	6119
57	27.35	2.466	110	1.453	6333
57	27.71	2.514	110	1.477	5478
57	28.16	2.369	110	1.406	6243
57	28.59	2.418	110	1.43	5690
57	28.98	2.562	110	1.5	5572
57	29.46	2.369	110	1.406	6109
57	29.82	2.418	110	1.43	5569
57	30.2	2.658	110	1.547	4659
57	30.64	2.466	110	1.453	6160

57	31.01	2.514	110	1.477	6190
57	31.41	2.658	110	1.547	5472
57	31.85	2.562	110	1.5	5367
57	32.29	2.706	110	1.57	4958
57	32.7	2.753	110	1.594	5249
57	33.1	2.658	110	1.547	5733
57	33.51	2.706	110	1.57	5441
57	33.9	2.8	110	1.617	5395
57	34.35	2.706	110	1.57	4635
57	34.76	2.8	110	1.617	5144
57	35.15	2.989	110	1.711	5234
57	35.56	2.8	110	1.617	5023
57	35.99	2.942	110	1.688	5416
57	36.39	3.036	110	1.734	5001
57	36.84	2.942	110	1.688	4872
57	37.23	2.989	110	1.711	4687
57	37.66	3.176	110	1.805	5151
57	38.06	3.129	110	1.781	5081
57	38.43	3.269	110	1.852	4940
58	0.28	3.222	112	1.828	4060
58	0.66	3.222	112	1.828	4610
58	1.08	3.315	112	1.875	4990
58	1.53	3.176	112	1.805	4055
58	1.88	3.036	112	1.734	4663
58	2.29	3.083	112	1.758	4985
58	2.71	3.036	112	1.734	5383
58	3.13	2.942	112	1.688	5127
58	3.55	3.083	112	1.758	5296
58	4	2.942	112	1.688	4927
58	4.39	2.848	112	1.641	4880
58	4.81	3.036	112	1.734	5379
58	5.21	2.848	112	1.641	5061
58	5.63	2.753	112	1.594	4858
58	6.04	2.8	112	1.617	4908
58	6.48	2.706	112	1.57	5224
58	6.83	2.658	112	1.547	5276
58	7.25	2.8	112	1.617	5343
58	7.72	2.658	112	1.547	5681
58	8.13	2.61	112	1.523	5031
58	8.54	2.753	112	1.594	5677
58	8.92	2.61	112	1.523	5721
58	9.3	2.562	112	1.5	5832
58	9.71	2.753	112	1.594	5626
58	10.13	2.61	112	1.523	5629
58	10.55	2.61	112	1.523	5521
58	10.96	2.753	112	1.594	5105
58	11.43	2.658	112	1.547	5395

58	11.86	2.658	112	1.547	5648
58	12.2	2.753	112	1.594	4976
58	12.63	2.706	112	1.57	5792
58	13.12	2.706	112	1.57	5649
58	13.46	2.848	112	1.641	5125
58	13.85	2.706	112	1.57	5644
58	14.26	2.706	112	1.57	5286
58	14.65	2.8	112	1.617	5179
58	15.08	2.658	112	1.547	5343
58	15.51	2.706	112	1.57	5336
58	15.88	2.8	112	1.617	4966
58	16.25	2.706	112	1.57	5500
58	16.8	2.658	112	1.547	5497
58	17.2	2.753	112	1.594	5290
58	17.61	2.658	112	1.547	5691
58	18.02	2.562	112	1.5	5891
58	18.37	2.706	112	1.57	4919
58	18.81	2.61	112	1.523	5969
58	19.23	2.658	112	1.547	5595
58	19.67	2.753	112	1.594	4623
58	20.11	2.658	112	1.547	5183
58	20.48	2.514	112	1.477	5916
58	20.88	2.61	112	1.523	5630
58	21.29	2.418	112	1.43	6295
58	21.74	2.418	112	1.43	6913
58	22.17	2.562	112	1.5	5619
58	22.55	2.418	112	1.43	6385
58	22.98	2.418	112	1.43	6784
58	23.39	2.562	112	1.5	5574
58	23.82	2.418	112	1.43	6252
58	24.22	2.466	112	1.453	6339
58	24.64	2.562	112	1.5	5817
58	25.04	2.418	112	1.43	6314
58	25.51	2.369	112	1.406	6610
58	25.89	2.562	112	1.5	5458
58	26.31	2.418	112	1.43	6574
58	26.75	2.369	112	1.406	6493
58	27.15	2.514	112	1.477	5625
58	27.59	2.418	112	1.43	6292
58	28.01	2.418	112	1.43	6144
58	28.36	2.514	112	1.477	5829
58	28.79	2.418	112	1.43	6428
58	29.18	2.418	112	1.43	6327
58	29.62	2.562	112	1.5	5743
58	30.05	2.369	112	1.406	6110
58	30.49	2.466	112	1.453	6289
58	30.91	2.562	112	1.5	5815

58	31.25	2.466	112	1.453	6495
58	31.65	2.514	112	1.477	6142
58	32.14	2.658	112	1.547	5571
58	32.57	2.562	112	1.5	6142
58	32.96	2.706	112	1.57	5700
58	33.36	2.753	112	1.594	5034
58	33.78	2.753	112	1.594	4767
58	34.19	2.753	112	1.594	5367
58	34.6	2.895	112	1.664	4948
58	34.99	2.706	112	1.57	5738
58	35.45	2.706	112	1.57	5678
58	35.87	2.942	112	1.688	4732
58	36.33	2.8	112	1.617	4922
58	36.68	2.753	112	1.594	5146
58	37.1	3.083	112	1.758	4755
58	37.53	2.848	112	1.641	5192
58	37.94	2.848	112	1.641	4627
58	38.36	3.129	112	1.781	3893
59	0.3	3.362	114	1.898	4320
59	0.72	3.222	114	1.828	3732
59	1.18	3.129	114	1.781	4670
59	1.59	3.176	114	1.805	5095
59	2.02	3.036	114	1.734	4897
59	2.47	2.942	114	1.688	4894
59	2.87	3.083	114	1.758	4616
59	3.2	2.989	114	1.711	5002
59	3.67	2.895	114	1.664	4756
59	4.08	3.036	114	1.734	4830
59	4.5	2.848	114	1.641	4960
59	4.91	2.8	114	1.617	5235
59	5.31	2.942	114	1.688	4806
59	5.72	2.706	114	1.57	5467
59	6.13	2.658	114	1.547	5703
59	6.51	2.706	114	1.57	5485
59	6.92	2.562	114	1.5	6071
59	7.33	2.562	114	1.5	6015
59	7.84	2.658	114	1.547	5515
59	8.24	2.562	114	1.5	5992
59	8.63	2.562	114	1.5	5918
59	9.01	2.706	114	1.57	5467
59	9.46	2.562	114	1.5	5725
59	9.87	2.562	114	1.5	5945
59	10.29	2.753	114	1.594	5683
59	10.67	2.706	114	1.57	5191
59	11.11	2.658	114	1.547	5800
59	11.46	2.753	114	1.594	5207
59	11.9	2.706	114	1.57	5630

59	12.33	2.8	114	1.617	5528
59	12.77	2.895	114	1.664	4822
59	13.17	2.8	114	1.617	5377
59	13.58	2.753	114	1.594	5451
59	13.96	2.895	114	1.664	5067
59	14.45	2.8	114	1.617	5265
59	14.84	2.753	114	1.594	5678
59	15.27	2.895	114	1.664	5083
59	15.65	2.753	114	1.594	5124
59	16.1	2.706	114	1.57	5587
59	16.53	2.8	114	1.617	5728
59	16.93	2.658	114	1.547	5661
59	17.32	2.61	114	1.523	6090
59	17.74	2.753	114	1.594	5113
59	18.15	2.61	114	1.523	5538
59	18.61	2.706	114	1.57	5402
59	18.98	2.848	114	1.641	5155
59	19.37	2.658	114	1.547	5518
59	19.81	2.61	114	1.523	5504
59	20.27	2.706	114	1.57	6041
59	20.69	2.514	114	1.477	6240
59	21.12	2.466	114	1.453	6676
59	21.47	2.61	114	1.523	6114
59	21.88	2.466	114	1.453	6239
59	22.3	2.418	114	1.43	6127
59	22.69	2.514	114	1.477	5999
59	23.22	2.369	114	1.406	6565
59	23.62	2.418	114	1.43	6660
59	23.98	2.562	114	1.5	5849
59	24.39	2.514	114	1.477	6068
59	24.83	2.466	114	1.453	6275
59	25.2	2.562	114	1.5	4967
59	25.61	2.418	114	1.43	6903
59	26.05	2.418	114	1.43	6364
59	26.38	2.562	114	1.5	5041
59	26.87	2.418	114	1.43	6180
59	27.3	2.466	114	1.453	5537
59	27.65	2.562	114	1.5	5403
59	28.06	2.466	114	1.453	6139
59	28.5	2.466	114	1.453	5862
59	28.91	2.61	114	1.523	5726
59	29.35	2.466	114	1.453	6069
59	29.78	2.418	114	1.43	6399
59	30.2	2.706	114	1.57	5389
59	30.58	2.61	114	1.523	5380
59	30.92	2.658	114	1.547	5587
59	31.36	2.848	114	1.641	4805

59	31.77	2.706	114	1.57	5606
59	32.21	2.706	114	1.57	5071
59	32.62	2.895	114	1.664	5199
59	33.02	2.848	114	1.641	5270
59	33.45	2.848	114	1.641	5197
59	33.85	3.036	114	1.734	4729
59	34.27	2.848	114	1.641	4934
59	34.66	2.989	114	1.711	4572
59	35.07	3.176	114	1.805	4698
59	35.49	3.083	114	1.758	4662
59	35.92	3.129	114	1.781	4447
59	36.33	3.269	114	1.852	4756
59	36.76	3.176	114	1.805	4747
59	37.19	3.269	114	1.852	4409
59	37.58	3.5	114	1.969	4717
59	37.97	3.408	114	1.922	4192
59	38.4	3.454	114	1.945	4281
60	0.28	3.222	116	1.828	4894
60	0.66	3.269	116	1.852	5076
60	1.1	3.315	116	1.875	4203
60	1.52	3.129	116	1.781	3836
60	1.91	3.083	116	1.758	4759
60	2.31	3.176	116	1.805	4873
60	2.71	3.036	116	1.734	4397
60	3.14	2.942	116	1.688	5073
60	3.57	3.036	116	1.734	5068
60	3.99	2.942	116	1.688	4884
60	4.4	2.8	116	1.617	4757
60	4.8	2.942	116	1.688	4774
60	5.2	2.8	116	1.617	5034
60	5.61	2.706	116	1.57	5171
60	6	2.753	116	1.594	5000
60	6.44	2.562	116	1.5	5946
60	6.85	2.514	116	1.477	5802
60	7.26	2.658	116	1.547	5431
60	7.68	2.466	116	1.453	5843
60	8.09	2.466	116	1.453	6246
60	8.49	2.562	116	1.5	5592
60	8.86	2.418	116	1.43	6053
60	9.28	2.418	116	1.43	6099
60	9.67	2.562	116	1.5	5240
60	10.12	2.418	116	1.43	5846
60	10.56	2.466	116	1.453	5546
60	10.96	2.658	116	1.547	5204
60	11.37	2.562	116	1.5	5628
60	11.8	2.562	116	1.5	5629
60	12.19	2.8	116	1.617	4892

60	12.61	2.706	116	1.57	5647
60	13.11	2.706	116	1.57	5130
60	13.43	2.848	116	1.641	4595
60	13.86	2.753	116	1.594	4515
60	14.24	2.8	116	1.617	5117
60	14.65	2.895	116	1.664	4922
60	15.08	2.658	116	1.547	5145
60	15.5	2.753	116	1.594	4895
60	15.87	2.848	116	1.641	5049
60	16.3	2.753	116	1.594	5272
60	16.78	2.706	116	1.57	5393
60	17.18	2.848	116	1.641	5341
60	17.59	2.61	116	1.523	5510
60	18.01	2.61	116	1.523	5504
60	18.37	2.753	116	1.594	5240
60	18.77	2.658	116	1.547	4980
60	19.21	2.706	116	1.57	5269
60	19.63	2.895	116	1.664	4947
60	20.06	2.753	116	1.594	5061
60	20.46	2.706	116	1.57	5003
60	20.85	2.706	116	1.57	4983
60	21.33	2.514	116	1.477	6005
60	21.73	2.466	116	1.453	5970
60	22.16	2.61	116	1.523	5612
60	22.57	2.466	116	1.453	5632
60	22.97	2.466	116	1.453	5803
60	23.39	2.658	116	1.547	5327
60	23.83	2.466	116	1.453	6265
60	24.25	2.418	116	1.43	6102
60	24.65	2.562	116	1.5	5926
60	25.05	2.418	116	1.43	5938
60	25.54	2.418	116	1.43	6220
60	25.89	2.562	116	1.5	5811
60	26.28	2.418	116	1.43	6003
60	26.7	2.369	116	1.406	6198
60	27.13	2.514	116	1.477	5498
60	27.57	2.418	116	1.43	5970
60	28.03	2.466	116	1.453	6332
60	28.38	2.61	116	1.523	5468
60	28.79	2.418	116	1.43	5856
60	29.18	2.466	116	1.453	6096
60	29.58	2.61	116	1.523	4819
60	29.99	2.466	116	1.453	6000
60	30.42	2.466	116	1.453	6183
60	30.82	2.658	116	1.547	5031
60	31.22	2.562	116	1.5	5424
60	31.61	2.61	116	1.523	5663

60	32.12	2.848	116	1.641	5391
60	32.54	2.753	116	1.594	5327
60	32.95	2.8	116	1.617	5136
60	33.32	2.895	116	1.664	4558
60	33.76	2.848	116	1.641	4979
60	34.16	2.942	116	1.688	5370
60	34.56	3.036	116	1.734	4528
60	34.98	2.895	116	1.664	4987
60	35.4	2.989	116	1.711	4657
60	35.82	3.129	116	1.781	5268
60	36.28	3.083	116	1.758	5023
60	36.64	2.989	116	1.711	5128
60	37.04	3.083	116	1.758	4996
60	37.46	3.083	116	1.758	5447
60	37.91	3.129	116	1.781	5003
60	38.29	3.315	116	1.875	4717
61	0.36	3.269	118	1.852	3851
61	0.77	3.129	118	1.781	3524
61	1.26	3.129	118	1.781	3828
61	1.61	3.269	118	1.852	5074
61	2.11	3.083	118	1.758	4500
61	2.51	3.129	118	1.781	5062
61	2.88	3.222	118	1.828	4110
61	3.28	3.036	118	1.734	5130
61	3.72	3.036	118	1.734	4867
61	4.13	3.083	118	1.758	4891
61	4.54	2.895	118	1.664	4761
61	4.97	2.848	118	1.641	4897
61	5.38	2.942	118	1.688	5462
61	5.78	2.753	118	1.594	5176
61	6.21	2.706	118	1.57	5498
61	6.58	2.8	118	1.617	5452
61	6.98	2.658	118	1.547	5592
61	7.39	2.706	118	1.57	5754
61	7.89	2.8	118	1.617	5275
61	8.28	2.658	118	1.547	5605
61	8.68	2.562	118	1.5	5695
61	9.09	2.753	118	1.594	5248
61	9.54	2.562	118	1.5	5335
61	9.93	2.658	118	1.547	5771
61	10.34	2.848	118	1.641	4811
61	10.74	2.753	118	1.594	5085
61	11.15	2.8	118	1.617	4828
61	11.51	2.942	118	1.688	4696
61	11.97	2.8	118	1.617	4866
61	12.4	2.8	118	1.617	4680
61	12.82	2.989	118	1.711	4120

61	13.24	2.895	118	1.664	4056
61	13.65	2.895	118	1.664	4403
61	14.01	3.083	118	1.758	3759
61	14.48	2.658	118	1.547	5396
61	14.9	2.848	118	1.641	4857
61	15.28	2.989	118	1.711	4250
61	15.73	2.895	118	1.664	4456
61	16.14	2.848	118	1.641	4918
61	16.54	2.942	118	1.688	4352
61	16.96	2.895	118	1.664	4454
61	17.34	2.895	118	1.664	4577
61	17.79	3.036	118	1.734	4298
61	18.21	2.942	118	1.688	4485
61	18.64	2.989	118	1.711	4167
61	19.08	3.176	118	1.805	4143
61	19.46	3.083	118	1.758	4446
61	19.88	2.942	118	1.688	4879
61	20.28	2.989	118	1.711	4717
61	20.74	2.753	118	1.594	5401
61	21.14	2.706	118	1.57	5487
61	21.49	2.895	118	1.664	5068
61	21.92	2.706	118	1.57	5284
61	22.34	2.658	118	1.547	5526
61	22.75	2.8	118	1.617	5363
61	23.2	2.706	118	1.57	5968
61	23.66	2.658	118	1.547	5224
61	24.04	2.753	118	1.594	5347
61	24.46	2.658	118	1.547	5756
61	24.89	2.61	118	1.523	5548
61	25.3	2.753	118	1.594	5021
61	25.67	2.658	118	1.547	5260
61	26.1	2.61	118	1.523	5821
61	26.43	2.706	118	1.57	5086
61	26.94	2.61	118	1.523	5607
61	27.34	2.562	118	1.5	5823
61	27.74	2.706	118	1.57	5312
61	28.16	2.61	118	1.523	5714
61	28.57	2.658	118	1.547	5702
61	28.98	2.753	118	1.594	5103
61	29.42	2.61	118	1.523	5589
61	29.87	2.61	118	1.523	5620
61	30.27	2.848	118	1.641	5137
61	30.69	2.753	118	1.594	5294
61	31.09	2.753	118	1.594	5409
61	31.46	2.989	118	1.711	5551
61	31.88	2.848	118	1.641	4754
61	32.26	2.895	118	1.664	4900

61	32.68	3.083	118	1.758	5088
61	33.11	2.942	118	1.688	4707
61	33.52	3.036	118	1.734	5171
61	33.93	3.222	118	1.828	5461
61	34.33	3.083	118	1.758	4869
61	34.77	3.176	118	1.805	5609
61	35.16	3.222	118	1.828	4786
61	35.57	3.222	118	1.828	5448
61	35.98	3.176	118	1.805	5561
61	36.42	3.222	118	1.828	5241
61	36.86	3.269	118	1.852	5050
61	37.22	3.176	118	1.805	5128
61	37.66	3.315	118	1.875	5086
61	38.06	3.269	118	1.852	5266
61	38.46	3.315	118	1.875	4831
62	0.28	3.222	120	1.828	4907
62	0.7	3.222	120	1.828	4392
62	1.1	3.315	120	1.875	4501
62	1.54	3.222	120	1.828	4616
62	1.92	3.222	120	1.828	4928
62	2.34	3.269	120	1.852	4987
62	2.74	3.129	120	1.781	5330
62	3.2	3.129	120	1.781	4757
62	3.62	3.222	120	1.828	4901
62	4.01	3.129	120	1.781	5011
62	4.42	3.083	120	1.758	4850
62	4.82	3.176	120	1.805	5333
62	5.22	2.989	120	1.711	5068
62	5.64	3.036	120	1.734	5067
62	6.02	3.036	120	1.734	5008
62	6.49	2.895	120	1.664	5353
62	6.91	2.895	120	1.664	5465
62	7.33	3.083	120	1.758	5081
62	7.71	2.848	120	1.641	5026
62	8.12	2.848	120	1.641	5133
62	8.52	2.942	120	1.688	5187
62	8.91	2.8	120	1.617	5633
62	9.31	2.8	120	1.617	5434
62	9.7	2.848	120	1.641	4901
62	10.14	2.706	120	1.57	5282
62	10.59	2.753	120	1.594	4846
62	10.99	2.848	120	1.641	5188
62	11.37	2.753	120	1.594	5498
62	11.81	2.753	120	1.594	5071
62	12.21	2.942	120	1.688	5165
62	12.62	2.848	120	1.641	5567
62	13.12	2.848	120	1.641	4699

62	13.46	2.989	120	1.711	4532
62	13.86	2.895	120	1.664	5284
62	14.25	2.942	120	1.688	4753
62	14.68	3.036	120	1.734	5092
62	15.11	2.848	120	1.641	4721
62	15.52	2.895	120	1.664	5503
62	15.92	2.989	120	1.711	5254
62	16.36	2.848	120	1.641	5009
62	16.82	2.8	120	1.617	5132
62	17.23	2.895	120	1.664	4796
62	17.62	2.848	120	1.641	5410
62	18.05	2.848	120	1.641	5245
62	18.41	2.989	120	1.711	4738
62	18.79	2.895	120	1.664	5142
62	19.26	2.989	120	1.711	4779
62	19.66	3.129	120	1.781	4999
62	20.09	3.036	120	1.734	4780
62	20.47	2.942	120	1.688	4828
62	20.91	2.989	120	1.711	5024
62	21.36	2.895	120	1.664	4985
62	21.74	2.848	120	1.641	5485
62	22.23	2.942	120	1.688	5423
62	22.59	2.848	120	1.641	5078
62	23.02	2.8	120	1.617	4429
62	23.39	2.942	120	1.688	4631
62	23.82	2.848	120	1.641	5193
62	24.26	2.848	120	1.641	5081
62	24.67	2.942	120	1.688	4864
62	25.06	2.753	120	1.594	5043
62	25.56	2.753	120	1.594	5291
62	25.9	2.895	120	1.664	4520
62	26.33	2.753	120	1.594	5660
62	26.75	2.706	120	1.57	5678
62	27.17	2.848	120	1.641	4653
62	27.56	2.658	120	1.547	5381
62	28.05	2.658	120	1.547	5651
62	28.39	2.753	120	1.594	5116
62	28.8	2.61	120	1.523	6140
62	29.2	2.658	120	1.547	5775
62	29.61	2.8	120	1.617	4893
62	29.99	2.658	120	1.547	5637
62	30.45	2.658	120	1.547	5702
62	30.88	2.848	120	1.641	5343
62	31.25	2.8	120	1.617	5311
62	31.68	2.8	120	1.617	5330
62	32.14	2.989	120	1.711	5451
62	32.57	2.848	120	1.641	5385

62	32.99	2.895	120	1.664	5184
62	33.37	3.083	120	1.758	5196
62	33.76	3.036	120	1.734	4623
62	34.17	2.989	120	1.711	4071
62	34.61	3.176	120	1.805	4523
62	35.01	3.129	120	1.781	5154
62	35.42	3.036	120	1.734	5168
62	35.82	3.176	120	1.805	5268
62	36.22	3.083	120	1.758	5420
62	36.68	3.036	120	1.734	5342
62	37.04	3.176	120	1.805	5383
62	37.44	3.129	120	1.781	5271
62	37.93	3.222	120	1.828	4701
62	38.29	3.269	120	1.852	3611
63	0.42	3.408	122	1.922	4352
63	0.84	3.222	122	1.828	4304
63	1.28	3.269	122	1.852	4372
63	1.63	3.362	122	1.898	4964
63	2.11	3.222	122	1.828	4213
63	2.52	3.222	122	1.828	4679
63	2.87	3.315	122	1.875	4862
63	3.34	3.083	122	1.758	4013
63	3.73	3.129	122	1.781	4424
63	4.14	3.269	122	1.852	4916
63	4.55	3.083	122	1.758	5365
63	4.94	3.083	122	1.758	5108
63	5.38	3.222	122	1.828	5192
63	5.82	3.083	122	1.758	5103
63	6.22	3.036	122	1.734	3913
63	6.59	3.222	122	1.828	3725
63	7	2.942	122	1.688	5267
63	7.44	2.989	122	1.711	5484
63	7.88	3.083	122	1.758	5407
63	8.3	2.848	122	1.641	5432
63	8.7	2.848	122	1.641	5542
63	9.12	3.036	122	1.734	5360
63	9.56	2.8	122	1.617	5430
63	9.96	2.848	122	1.641	5329
63	10.35	2.942	122	1.688	5395
63	10.79	2.8	122	1.617	5420
63	11.21	2.848	122	1.641	5514
63	11.59	2.989	122	1.711	5042
63	12.03	2.942	122	1.688	5342
63	12.41	2.989	122	1.711	4910
63	12.83	3.083	122	1.758	4715
63	13.27	2.989	122	1.711	5058
63	13.68	2.989	122	1.711	4888

63	14.04	3.129	122	1.781	4768
63	14.52	2.942	122	1.688	5564
63	14.93	2.942	122	1.688	4903
63	15.32	3.036	122	1.734	4627
63	15.78	2.895	122	1.664	5296
63	16.2	2.942	122	1.688	5106
63	16.58	3.036	122	1.734	4883
63	17	2.942	122	1.688	5490
63	17.41	2.942	122	1.688	5351
63	17.85	3.036	122	1.734	4994
63	18.25	2.942	122	1.688	5571
63	18.71	3.036	122	1.734	5139
63	19.13	3.222	122	1.828	4836
63	19.53	3.083	122	1.758	4732
63	19.94	2.989	122	1.711	5078
63	20.34	3.083	122	1.758	4892
63	20.81	2.895	122	1.664	5438
63	21.19	2.942	122	1.688	5127
63	21.55	3.083	122	1.758	5205
63	21.96	2.942	122	1.688	5393
63	22.39	2.942	122	1.688	5167
63	22.8	3.129	122	1.781	5153
63	23.26	2.989	122	1.711	5666
63	23.73	2.989	122	1.711	5312
63	24.13	3.083	122	1.758	4753
63	24.56	2.895	122	1.664	5389
63	24.99	2.942	122	1.688	5291
63	25.39	3.036	122	1.734	5039
63	25.78	2.848	122	1.641	5632
63	26.17	2.8	122	1.617	5685
63	26.53	2.895	122	1.664	5127
63	27.01	2.753	122	1.594	5875
63	27.43	2.753	122	1.594	5471
63	27.8	2.8	122	1.617	4931
63	28.23	2.658	122	1.547	5909
63	28.64	2.706	122	1.57	5511
63	29.02	2.848	122	1.641	4967
63	29.47	2.706	122	1.57	5453
63	29.9	2.706	122	1.57	5334
63	30.3	2.942	122	1.688	5217
63	30.71	2.8	122	1.617	5368
63	31.1	2.895	122	1.664	5598
63	31.49	2.989	122	1.711	5267
63	31.91	2.895	122	1.664	5377
63	32.29	2.989	122	1.711	5165
63	32.7	3.129	122	1.781	5382
63	33.12	2.989	122	1.711	4937

63	33.61	3.083	122	1.758	4994
63	33.99	3.222	122	1.828	5390
63	34.4	3.129	122	1.781	4978
63	34.82	3.083	122	1.758	5041
63	35.2	3.222	122	1.828	4912
63	35.61	3.083	122	1.758	5290
63	36.01	3.129	122	1.781	4884
63	36.41	3.176	122	1.805	5197
63	36.87	3.083	122	1.758	4753
63	37.33	3.129	122	1.781	5115
63	37.71	3.269	122	1.852	4709
63	38.06	3.269	122	1.852	3991
63	38.5	3.362	122	1.898	4195
64	0.26	3.315	124	1.875	4485
64	0.69	3.315	124	1.875	4863
64	1.07	3.454	124	1.945	4779
64	1.52	3.269	124	1.852	5136
64	1.88	3.269	124	1.852	4356
64	2.31	3.315	124	1.875	4865
64	2.72	3.222	124	1.828	4716
64	3.17	3.176	124	1.805	4895
64	3.61	3.315	124	1.875	5109
64	3.95	3.129	124	1.781	4753
64	4.39	3.129	124	1.781	4674
64	4.79	3.222	124	1.828	5111
64	5.19	3.083	124	1.758	5418
64	5.6	3.083	124	1.758	5268
64	5.99	3.129	124	1.781	4137
64	6.49	2.848	124	1.641	4781
64	6.93	2.895	124	1.664	5056
64	7.32	3.036	124	1.734	5445
64	7.71	2.848	124	1.641	5186
64	8.13	2.848	124	1.641	5268
64	8.52	2.895	124	1.664	4916
64	8.92	2.753	124	1.594	5698
64	9.32	2.8	124	1.617	5350
64	9.74	2.848	124	1.641	5058
64	10.16	2.753	124	1.594	5098
64	10.61	2.753	124	1.594	5493
64	11	2.895	124	1.664	4757
64	11.39	2.8	124	1.617	5196
64	11.83	2.8	124	1.617	5710
64	12.25	2.989	124	1.711	5162
64	12.64	2.848	124	1.641	5201
64	13.12	2.8	124	1.617	5122
64	13.5	2.989	124	1.711	4427
64	13.87	2.942	124	1.688	4617

64	14.27	2.895	124	1.664	4689
64	14.71	3.036	124	1.734	4737
64	15.1	2.942	124	1.688	5185
64	15.54	2.942	124	1.688	4824
64	15.97	3.036	124	1.734	5097
64	16.4	2.942	124	1.688	4983
64	16.83	2.989	124	1.711	5014
64	17.24	3.083	124	1.758	5472
64	17.65	2.942	124	1.688	4830
64	18.05	2.989	124	1.711	4988
64	18.43	3.222	124	1.828	4694
64	18.79	3.036	124	1.734	5018
64	19.26	3.129	124	1.781	5027
64	19.68	3.222	124	1.828	4688
64	19.69	3.222	124	1.828	4747
64	20.09	3.083	124	1.758	4541
64	20.47	2.989	124	1.711	4375
64	20.89	3.083	124	1.758	5058
64	21.34	2.989	124	1.711	4634
64	21.75	2.942	124	1.688	5001
64	22.19	3.129	124	1.781	5340
64	22.59	2.942	124	1.688	5039
64	23	2.942	124	1.688	5132
64	23.4	3.083	124	1.758	4205
64	23.79	2.942	124	1.688	5031
64	24.26	2.895	124	1.664	4942
64	24.68	3.129	124	1.781	4607
64	25.07	2.895	124	1.664	5111
64	25.54	2.848	124	1.641	5130
64	25.93	2.989	124	1.711	4729
64	26.33	2.848	124	1.641	5296
64	26.75	2.8	124	1.617	5306
64	27.18	2.942	124	1.688	4825
64	27.56	2.8	124	1.617	5361
64	27.99	2.8	124	1.617	5388
64	28.38	2.989	124	1.711	4901
64	28.78	2.8	124	1.617	5328
64	29.21	2.753	124	1.594	5429
64	29.61	2.942	124	1.688	4906
64	30.01	2.8	124	1.617	5398
64	30.46	2.706	124	1.57	5202
64	30.87	2.895	124	1.664	5087
64	31.26	2.753	124	1.594	4829
64	31.69	2.8	124	1.617	4620
64	32.11	2.942	124	1.688	4334
64	32.56	2.895	124	1.664	4932
64	32.96	2.848	124	1.641	5039

64	33.38	2.989	124	1.711	4793
64	33.76	2.942	124	1.688	4632
64	34.19	3.083	124	1.758	4905
64	34.6	3.176	124	1.805	5280
64	35.01	3.176	124	1.805	4996
64	35.4	3.083	124	1.758	4804
64	35.83	3.222	124	1.828	4726
64	36.2	3.129	124	1.781	5176
64	36.69	3.129	124	1.781	4864
64	37.06	3.176	124	1.805	4993
64	37.47	3.083	124	1.758	4468
64	37.91	3.129	124	1.781	4555
64	38.31	3.362	124	1.898	4030
65	0.36	3.269	126	1.852	4485
65	0.78	3.315	126	1.875	4565
65	1.21	3.454	126	1.945	4545
65	1.61	3.315	126	1.875	4352
65	2.04	3.222	126	1.828	4348
65	2.48	3.362	126	1.898	4333
65	2.84	3.315	126	1.875	4555
65	3.31	3.222	126	1.828	4535
65	3.71	3.362	126	1.898	4487
65	4.11	3.222	126	1.828	4603
65	4.51	3.176	126	1.805	4597
65	4.92	3.222	126	1.828	4786
65	5.32	3.083	126	1.758	5068
65	5.75	3.036	126	1.734	5112
65	6.13	3.129	126	1.781	4980
65	6.56	2.942	126	1.688	5244
65	6.98	3.036	126	1.734	5308
65	7.41	3.036	126	1.734	5032
65	7.85	2.895	126	1.664	4969
65	8.26	2.8	126	1.617	5165
65	8.65	2.989	126	1.711	5433
65	9.06	2.848	126	1.641	5291
65	9.53	2.848	126	1.641	4709
65	9.94	3.036	126	1.734	4755
65	10.31	2.942	126	1.688	5073
65	10.74	2.989	126	1.711	4952
65	11.19	3.129	126	1.781	5007
65	11.57	2.989	126	1.711	4872
65	11.97	2.8	126	1.617	4700
65	12.41	3.222	126	1.828	4259
65	12.84	3.129	126	1.781	4730
65	13.27	3.083	126	1.758	5037
65	13.68	3.176	126	1.805	5031
65	14.05	2.942	126	1.688	4608

65	14.5	3.083	126	1.758	4748
65	14.92	3.176	126	1.805	4707
65	15.34	3.083	126	1.758	5092
65	15.77	3.083	126	1.758	5057
65	16.2	3.269	126	1.852	4826
65	16.57	3.176	126	1.805	4378
65	17.02	3.176	126	1.805	4564
65	17.42	3.362	126	1.898	4336
65	17.84	3.315	126	1.875	4741
65	18.28	3.454	126	1.945	3833
65	18.71	3.408	126	1.922	3742
65	19.12	3.176	126	1.805	4789
65	19.53	3.036	126	1.734	4798
65	19.95	3.129	126	1.781	5425
65	20.41	2.989	126	1.711	5099
65	20.86	2.989	126	1.711	5452
65	21.19	3.083	126	1.758	5151
65	21.59	2.942	126	1.688	5166
65	22.03	2.942	126	1.688	5272
65	22.42	3.129	126	1.781	5043
65	22.84	2.989	126	1.711	4922
65	23.24	2.942	126	1.688	5210
65	23.65	3.083	126	1.758	4579
65	24.1	2.989	126	1.711	5394
65	24.55	2.942	126	1.688	5201
65	24.95	3.036	126	1.734	5121
65	25.36	2.895	126	1.664	5636
65	25.75	2.848	126	1.641	5247
65	26.14	2.989	126	1.711	5015
65	26.51	2.8	126	1.617	5176
65	26.97	2.753	126	1.594	5399
65	27.39	2.895	126	1.664	5125
65	27.78	2.8	126	1.617	5295
65	28.23	2.706	126	1.57	5121
65	28.61	2.848	126	1.641	4896
65	29	2.706	126	1.57	5612
65	29.42	2.753	126	1.594	5724
65	29.82	2.895	126	1.664	4743
65	30.26	2.706	126	1.57	5603
65	30.67	2.753	126	1.594	5425
65	31.08	2.895	126	1.664	4973
65	31.46	2.753	126	1.594	4799
65	31.88	2.848	126	1.641	4501
65	32.27	2.989	126	1.711	4472
65	32.67	2.895	126	1.664	4108
65	33.09	2.895	126	1.664	4892
65	33.57	3.083	126	1.758	4802

65	33.95	2.942	126	1.688	4799
65	34.37	3.083	126	1.758	5034
65	34.82	3.083	126	1.758	4796
65	35.19	3.036	126	1.734	5025
65	35.62	2.989	126	1.711	5318
65	35.97	3.129	126	1.781	5324
65	36.39	3.036	126	1.734	4977
65	36.86	3.129	126	1.781	4837
65	37.27	3.269	126	1.852	4558
65	37.67	3.222	126	1.828	5031
65	38.08	3.222	126	1.828	5180
66	0.24	3.222	128	1.828	4534
66	0.69	3.269	128	1.852	4844
66	1.06	3.362	128	1.898	3294
66	1.5	3.269	128	1.852	3762
66	1.92	3.269	128	1.852	3689
66	2.31	3.362	128	1.898	4555
66	2.7	3.176	128	1.805	4523
66	3.15	3.222	128	1.828	3782
66	3.6	3.315	128	1.875	4884
66	3.94	3.129	128	1.781	4646
66	4.37	3.083	128	1.758	5136
66	4.77	3.315	128	1.875	5076
66	5.22	3.129	128	1.781	5409
66	5.64	3.036	128	1.734	4415
66	6.02	3.222	128	1.828	4933
66	6.48	3.083	128	1.758	5030
66	6.89	3.036	128	1.734	5081
66	7.28	3.083	128	1.758	4625
66	7.7	2.989	128	1.711	4785
66	8.11	2.989	128	1.711	4943
66	8.5	3.036	128	1.734	5093
66	8.9	2.848	128	1.641	5351
66	9.32	2.8	128	1.617	5494
66	9.75	2.895	128	1.664	4989
66	10.14	2.753	128	1.594	4748
66	10.55	2.8	128	1.617	5766
66	10.94	2.942	128	1.688	5104
66	11.36	2.848	128	1.641	5489
66	11.82	2.895	128	1.664	5541
66	12.21	3.036	128	1.734	5036
66	12.62	2.895	128	1.664	5362
66	13.04	2.848	128	1.641	5312
66	13.45	3.129	128	1.781	4936
66	13.82	3.036	128	1.734	4767
66	14.23	2.989	128	1.711	4694
66	14.65	3.176	128	1.805	5038

66	15.04	2.895	128	1.664	5277
66	15.48	2.989	128	1.711	5524
66	15.93	3.083	128	1.758	5376
66	16.34	2.989	128	1.711	4532
66	16.76	2.989	128	1.711	4919
66	17.21	3.129	128	1.781	4470
66	17.59	2.989	128	1.711	4693
66	18.03	2.989	128	1.711	5655
66	18.41	3.036	128	1.734	4753
66	18.76	3.036	128	1.734	5004
66	19.21	3.083	128	1.758	4952
66	19.66	3.269	128	1.852	4394
66	20.06	3.036	128	1.734	4510
66	20.46	2.942	128	1.688	5198
66	20.87	3.036	128	1.734	5078
66	21.3	2.942	128	1.688	5390
66	21.74	2.942	128	1.688	5107
66	22.13	3.083	128	1.758	5145
66	22.55	2.895	128	1.664	5086
66	23.03	2.895	128	1.664	4912
66	23.39	3.083	128	1.758	4807
66	23.78	2.942	128	1.688	4845
66	24.22	2.942	128	1.688	4850
66	24.67	3.036	128	1.734	5112
66	25.07	2.942	128	1.688	5298
66	25.5	2.942	128	1.688	5056
66	25.87	3.083	128	1.758	4769
66	26.3	2.895	128	1.664	5240
66	26.69	2.8	128	1.617	5644
66	27.11	2.942	128	1.688	4921
66	27.57	2.8	128	1.617	5311
66	27.95	2.753	128	1.594	4881
66	28.35	2.848	128	1.641	4781
66	28.78	2.706	128	1.57	5310
66	29.21	2.706	128	1.57	4991
66	29.62	2.848	128	1.641	5633
66	30.02	2.658	128	1.547	5945
66	30.46	2.706	128	1.57	5460
66	30.86	2.8	128	1.617	4936
66	31.27	2.753	128	1.594	5530
66	31.65	2.753	128	1.594	5383
66	32.08	2.942	128	1.688	5233
66	32.51	2.895	128	1.664	5208
66	32.93	2.8	128	1.617	5335
66	33.37	2.942	128	1.688	5167
66	33.76	2.895	128	1.664	5098
66	34.16	2.895	128	1.664	4962

66	34.58	2.989	128	1.711	5113
66	34.98	2.942	128	1.688	5113
66	35.39	2.895	128	1.664	5102
66	35.81	3.083	128	1.758	4582
66	36.22	2.895	128	1.664	5191
66	36.66	2.895	128	1.664	4633
66	37.06	3.036	128	1.734	5119
66	37.49	2.942	128	1.688	4914
66	37.9	3.083	128	1.758	4895
66	38.3	3.222	128	1.828	4360
67	0.41	3.315	130	1.875	4002
67	0.82	3.454	130	1.945	3523
67	1.27	3.408	130	1.922	4116
67	1.64	3.222	130	1.828	4196
67	2.03	3.176	130	1.805	5051
67	2.5	3.176	130	1.805	4264
67	2.89	3.176	130	1.805	4600
67	3.37	3.176	130	1.805	4706
67	3.75	3.222	130	1.828	4617
67	4.14	3.129	130	1.781	4819
67	4.57	3.083	130	1.758	4756
67	4.97	3.222	130	1.828	3928
67	5.37	3.083	130	1.758	4141
67	5.79	3.036	130	1.734	4761
67	6.2	3.222	130	1.828	4779
67	6.62	3.083	130	1.758	5231
67	7.04	3.083	130	1.758	5020
67	7.49	3.129	130	1.781	4727
67	7.93	2.942	130	1.688	5109
67	8.31	2.989	130	1.711	4841
67	8.69	2.989	130	1.711	4400
67	9.1	2.942	130	1.688	4729
67	9.52	2.942	130	1.688	4958
67	9.92	3.129	130	1.781	4592
67	10.35	3.036	130	1.734	4438
67	10.77	2.989	130	1.711	4617
67	11.22	3.083	130	1.758	4732
67	11.6	3.083	130	1.758	4837
67	11.99	3.036	130	1.734	4263
67	12.44	3.176	130	1.805	3967
67	12.89	3.083	130	1.758	4459
67	13.26	3.083	130	1.758	4270
67	13.72	3.222	130	1.828	4325
67	14.05	3.083	130	1.758	4149
67	14.5	3.083	130	1.758	4272
67	14.92	3.129	130	1.781	4323
67	15.35	3.036	130	1.734	4007

67	15.77	3.036	130	1.734	4130
67	16.17	3.176	130	1.805	4251
67	16.53	3.083	130	1.758	3872
67	17.02	3.036	130	1.734	4404
67	17.42	3.129	130	1.781	4776
67	17.82	3.036	130	1.734	4168
67	18.25	3.036	130	1.734	4558
67	18.68	3.176	130	1.805	4169
67	19.08	3.036	130	1.734	4150
67	19.51	2.895	130	1.664	4426
67	19.93	2.989	130	1.711	4638
67	20.35	2.848	130	1.641	4846
67	20.81	2.848	130	1.641	4981
67	21.18	2.989	130	1.711	4362
67	21.56	2.848	130	1.641	4676
67	21.98	2.848	130	1.641	4792
67	22.38	2.989	130	1.711	4895
67	22.85	2.895	130	1.664	5274
67	23.24	2.895	130	1.664	5180
67	23.64	3.036	130	1.734	4833
67	24.08	2.942	130	1.688	4672
67	24.52	2.942	130	1.688	4869
67	24.93	3.083	130	1.758	4733
67	25.34	2.989	130	1.711	4246
67	25.75	2.989	130	1.711	4604
67	26.13	3.083	130	1.758	4408
67	26.54	3.083	130	1.758	4461
67	26.96	3.083	130	1.758	4254
67	27.37	3.176	130	1.805	4123
67	27.76	3.129	130	1.781	4474
67	28.18	3.036	130	1.734	4685
67	28.63	3.129	130	1.781	4773
67	29.01	2.942	130	1.688	4876
67	29.41	2.895	130	1.664	5014
67	29.82	2.942	130	1.688	4182
67	30.25	2.848	130	1.641	5377
67	30.67	2.848	130	1.641	5272
67	31.07	2.989	130	1.711	5039
67	31.47	2.848	130	1.641	5027
67	31.86	2.895	130	1.664	5069
67	32.31	3.083	130	1.758	4952
67	32.7	2.895	130	1.664	4710
67	33.12	2.895	130	1.664	4759
67	33.57	3.129	130	1.781	5089
67	33.91	2.942	130	1.688	5088
67	34.35	2.989	130	1.711	4798
67	34.82	3.176	130	1.805	4105

67	35.23	3.036	130	1.734	4083
67	35.63	2.989	130	1.711	4394
67	35.98	3.083	130	1.758	4435
67	36.42	3.129	130	1.781	5099
67	36.82	3.083	130	1.758	4762
67	37.24	3.269	130	1.852	4547
67	37.66	3.129	130	1.781	4203
67	38.07	3.222	130	1.828	4493
68	0.34	3.222	132	1.828	4519
68	0.71	3.269	132	1.852	3950
68	1.13	3.362	132	1.898	4099
68	1.56	3.222	132	1.828	4796
68	1.95	3.222	132	1.828	4891
68	2.37	3.269	132	1.852	4656
68	2.79	3.129	132	1.781	5016
68	3.18	3.083	132	1.758	4521
68	3.6	3.083	132	1.758	4299
68	3.97	3.036	132	1.734	4820
68	4.37	3.036	132	1.734	4909
68	4.77	3.129	132	1.781	4437
68	5.22	2.989	132	1.711	5112
68	5.7	2.942	132	1.688	4745
68	6.05	2.989	132	1.711	4529
68	6.44	2.848	132	1.641	4859
68	6.89	2.895	132	1.664	5025
68	7.3	2.942	132	1.688	4886
68	7.74	2.848	132	1.641	5368
68	8.15	2.8	132	1.617	4982
68	8.53	2.848	132	1.641	4996
68	8.92	2.658	132	1.547	5803
68	9.34	2.706	132	1.57	5025
68	9.76	2.848	132	1.641	4695
68	10.22	2.706	132	1.57	5267
68	10.6	2.706	132	1.57	5208
68	10.97	2.848	132	1.641	5582
68	11.42	2.8	132	1.617	5298
68	11.84	2.848	132	1.641	5082
68	12.25	2.942	132	1.688	5243
68	12.65	2.895	132	1.664	5285
68	13.07	2.895	132	1.664	5003
68	13.5	2.989	132	1.711	4162
68	13.86	2.895	132	1.664	5105
68	14.27	2.942	132	1.688	4729
68	14.7	2.942	132	1.688	4976
68	15.1	2.895	132	1.664	4734
68	15.52	2.8	132	1.617	5184
68	15.96	2.942	132	1.688	5359

68	16.37	2.753	132	1.594	5195
68	16.78	2.753	132	1.594	5705
68	17.21	2.8	132	1.617	5383
68	17.63	2.658	132	1.547	5717
68	18.05	2.706	132	1.57	5907
68	18.44	2.753	132	1.594	5002
68	18.82	2.658	132	1.547	5316
68	19.26	2.8	132	1.617	5226
68	19.69	2.989	132	1.711	4435
68	20.09	2.8	132	1.617	4871
68	20.53	2.706	132	1.57	5180
68	20.92	2.8	132	1.617	5198
68	21.35	2.706	132	1.57	5475
68	21.78	2.753	132	1.594	5230
68	22.17	2.895	132	1.664	5229
68	22.6	2.8	132	1.617	5648
68	23.08	2.753	132	1.594	5156
68	23.47	2.942	132	1.688	4762
68	23.85	2.753	132	1.594	5106
68	24.24	2.753	132	1.594	5568
68	24.68	2.895	132	1.664	4815
68	25.09	2.8	132	1.617	5381
68	25.54	2.8	132	1.617	4934
68	25.89	2.895	132	1.664	4666
68	26.33	2.8	132	1.617	5418
68	26.71	2.753	132	1.594	5463
68	27.14	2.895	132	1.664	4765
68	27.63	2.753	132	1.594	5395
68	27.99	2.706	132	1.57	5289
68	28.38	2.848	132	1.641	5372
68	28.8	2.753	132	1.594	5344
68	29.24	2.753	132	1.594	4548
68	29.67	2.895	132	1.664	4862
68	30.07	2.706	132	1.57	5456
68	30.49	2.658	132	1.547	5194
68	30.9	2.848	132	1.641	4986
68	31.3	2.706	132	1.57	5272
68	31.67	2.753	132	1.594	5045
68	32.1	2.895	132	1.664	4937
68	32.56	2.8	132	1.617	4633
68	32.99	2.753	132	1.594	4975
68	33.39	2.942	132	1.688	4768
68	33.82	2.848	132	1.641	4769
68	34.25	2.895	132	1.664	5181
68	34.62	2.942	132	1.688	4895
68	35.03	2.848	132	1.641	5217
68	35.43	2.895	132	1.664	4324

68	35.83	2.989	132	1.711	3817
68	36.23	2.942	132	1.688	3925
68	36.67	2.848	132	1.641	5329
68	37.1	3.083	132	1.758	5066
68	37.54	2.942	132	1.688	4880
68	37.97	2.989	132	1.711	4520
68	38.34	3.129	132	1.781	4335
69	0.37	3.5	134	1.969	3800
69	0.77	3.222	134	1.828	4267
69	1.24	3.222	134	1.828	3897
69	1.61	3.315	134	1.875	4594
69	2.01	3.129	134	1.781	5073
69	2.45	3.176	134	1.805	5106
69	2.89	3.176	134	1.805	4443
69	3.33	3.036	134	1.734	4809
69	3.73	2.942	134	1.688	5249
69	4.12	3.083	134	1.758	4178
69	4.55	2.989	134	1.711	4993
69	4.97	2.895	134	1.664	5112
69	5.3	3.036	134	1.734	4974
69	5.72	2.942	134	1.688	5167
69	6.16	2.895	134	1.664	5478
69	6.55	2.942	134	1.688	4777
69	7	2.848	134	1.641	5145
69	7.45	2.848	134	1.641	5569
69	7.88	2.895	134	1.664	5094
69	8.24	2.706	134	1.57	5336
69	8.65	2.706	134	1.57	5486
69	9.05	2.8	134	1.617	4653
69	9.45	2.848	134	1.641	5269
69	9.9	2.895	134	1.664	4930
69	10.35	3.036	134	1.734	4767
69	10.79	2.895	134	1.664	4661
69	11.21	2.895	134	1.664	5063
69	11.59	2.989	134	1.711	4726
69	11.94	2.942	134	1.688	4916
69	12.44	2.942	134	1.688	4698
69	12.87	3.036	134	1.734	4026
69	13.27	2.942	134	1.688	4529
69	13.7	2.942	134	1.688	4632
69	14.05	3.083	134	1.758	4443
69	14.47	2.895	134	1.664	4429
69	14.91	2.942	134	1.688	4150
69	15.34	2.989	134	1.711	4859
69	15.74	2.8	134	1.617	5098
69	16.13	2.8	134	1.617	4803
69	16.52	2.895	134	1.664	4507

69	16.95	2.848	134	1.641	4388
69	17.44	2.895	134	1.664	4616
69	17.81	2.989	134	1.711	4372
69	18.23	2.942	134	1.688	4415
69	18.68	3.036	134	1.734	3889
69	19.07	3.222	134	1.828	4002
69	19.48	2.942	134	1.688	4297
69	19.94	2.8	134	1.617	4438
69	20.32	2.848	134	1.641	4662
69	20.79	2.8	134	1.617	5374
69	21.19	2.753	134	1.594	5507
69	21.59	2.895	134	1.664	4869
69	21.99	2.8	134	1.617	5554
69	22.42	2.753	134	1.594	5263
69	22.84	2.895	134	1.664	5105
69	23.28	2.8	134	1.617	5390
69	23.69	2.895	134	1.664	5147
69	24.12	2.942	134	1.688	4762
69	24.52	2.895	134	1.664	5236
69	24.9	2.753	134	1.594	4939
69	25.34	2.942	134	1.688	4843
69	25.73	2.8	134	1.617	5429
69	26.11	2.8	134	1.617	5240
69	26.49	2.848	134	1.641	5248
69	26.91	2.8	134	1.617	5730
69	27.34	2.753	134	1.594	5511
69	27.74	2.848	134	1.641	4956
69	28.14	2.706	134	1.57	5593
69	28.59	2.706	134	1.57	5418
69	28.96	2.848	134	1.641	5190
69	29.36	2.706	134	1.57	5862
69	29.81	2.706	134	1.57	5161
69	30.24	2.895	134	1.664	4636
69	30.66	2.753	134	1.594	5482
69	31.05	2.753	134	1.594	5611
69	31.39	2.895	134	1.664	5185
69	31.8	2.8	134	1.617	5047
69	32.29	2.753	134	1.594	4782
69	32.68	2.942	134	1.688	4425
69	33.12	2.8	134	1.617	5248
69	33.53	2.848	134	1.641	4903
69	33.9	2.895	134	1.664	5004
69	34.35	2.8	134	1.617	5123
69	34.78	2.989	134	1.711	4905
69	35.23	2.942	134	1.688	4149
69	35.62	2.895	134	1.664	5086
69	36.03	2.942	134	1.688	4842

69	36.41	3.036	134	1.734	4430
69	36.82	2.942	134	1.688	4584
69	37.26	3.036	134	1.734	4643
69	37.66	3.176	134	1.805	4417
69	38.01	3.129	134	1.781	4207
69	38.5	3.269	134	1.852	3984
70	0.33	3.362	136	1.898	4299
70	0.72	3.408	136	1.922	4416
70	1.1	3.546	136	1.992	4485
70	1.62	3.315	136	1.875	5198
70	1.98	3.269	136	1.852	4823
70	2.33	3.454	136	1.945	4132
70	2.8	3.269	136	1.852	4475
70	3.21	3.176	136	1.805	5039
70	3.57	3.269	136	1.852	4134
70	3.93	3.129	136	1.781	4564
70	4.34	3.129	136	1.781	4627
70	4.78	3.222	136	1.828	5057
70	5.22	2.989	136	1.711	4660
70	5.63	2.942	136	1.688	5056
70	6	3.083	136	1.758	4817
70	6.42	2.989	136	1.711	4887
70	6.88	2.942	136	1.688	5352
70	7.28	2.989	136	1.711	4880
70	7.78	2.848	136	1.641	5085
70	8.21	2.848	136	1.641	4964
70	8.53	2.942	136	1.688	5303
70	8.93	2.753	136	1.594	5632
70	9.32	2.753	136	1.594	5812
70	9.73	2.8	136	1.617	4864
70	10.19	2.753	136	1.594	5314
70	10.6	2.753	136	1.594	5469
70	10.95	2.895	136	1.664	4773
70	11.4	2.753	136	1.594	5188
70	11.81	2.753	136	1.594	5466
70	12.22	2.895	136	1.664	4917
70	12.65	2.8	136	1.617	5504
70	13.12	2.895	136	1.664	5309
70	13.5	2.942	136	1.688	5046
70	13.88	2.848	136	1.641	5166
70	14.26	2.8	136	1.617	5226
70	14.68	2.989	136	1.711	5334
70	15.11	2.848	136	1.641	4877
70	15.5	2.753	136	1.594	5057
70	15.91	2.942	136	1.688	4853
70	16.33	2.753	136	1.594	4705
70	16.8	2.753	136	1.594	5372

70	17.2	2.895	136	1.664	4365
70	17.61	2.753	136	1.594	5122
70	18.02	2.753	136	1.594	5200
70	18.41	2.895	136	1.664	4923
70	18.79	2.8	136	1.617	5772
70	19.31	2.848	136	1.641	5324
70	19.67	2.942	136	1.688	4604
70	20.14	2.8	136	1.617	5050
70	20.53	2.706	136	1.57	5250
70	20.92	2.848	136	1.641	4960
70	21.38	2.753	136	1.594	5096
70	21.8	2.706	136	1.57	5451
70	22.14	2.848	136	1.641	4846
70	22.63	2.8	136	1.617	5459
70	23.06	2.753	136	1.594	5496
70	23.45	2.895	136	1.664	4598
70	23.85	2.848	136	1.641	5279
70	24.24	2.8	136	1.617	4916
70	24.66	2.989	136	1.711	4586
70	25.11	2.848	136	1.641	5230
70	25.54	2.753	136	1.594	5479
70	25.89	2.895	136	1.664	4939
70	26.29	2.753	136	1.594	5707
70	26.69	2.753	136	1.594	5414
70	27.13	2.848	136	1.641	5183
70	27.65	2.753	136	1.594	5519
70	28	2.706	136	1.57	5555
70	28.36	2.848	136	1.641	4756
70	28.78	2.706	136	1.57	5510
70	29.21	2.706	136	1.57	5500
70	29.69	2.8	136	1.617	5115
70	30.11	2.61	136	1.523	5863
70	30.5	2.848	136	1.641	5682
70	30.91	2.8	136	1.617	5030
70	31.36	2.658	136	1.547	5646
70	31.72	2.658	136	1.547	5398
70	32.12	2.848	136	1.641	4574
70	32.59	2.658	136	1.547	5873
70	33.03	2.753	136	1.594	6099
70	33.41	2.848	136	1.641	5080
70	33.88	2.753	136	1.594	4598
70	34.3	2.753	136	1.594	4471
70	34.65	2.895	136	1.664	4526
70	34.99	2.753	136	1.594	5136
70	35.45	2.8	136	1.617	3857
70	35.86	2.942	136	1.688	3706
70	36.22	2.848	136	1.641	4793

70	36.71	2.895	136	1.664	4884
70	37.13	3.036	136	1.734	4055
70	37.6	2.942	136	1.688	4636
70	38	3.129	136	1.781	4728
70	38.34	3.176	136	1.805	4602
71	0.37	3.592	138	2.016	4322
71	0.74	3.454	138	1.945	4520
71	1.24	3.408	138	1.922	4345
71	1.62	3.5	138	1.969	4271
71	2	3.362	138	1.898	4845
71	2.45	3.362	138	1.898	4800
71	2.89	3.408	138	1.922	4820
71	3.38	3.269	138	1.852	4773
71	3.74	3.362	138	1.898	4801
71	4.12	3.454	138	1.945	4602
71	4.61	3.315	138	1.875	3682
71	4.95	2.942	138	1.688	4264
71	5.3	3.222	138	1.828	4801
71	5.71	3.176	138	1.805	5374
71	6.16	3.083	138	1.758	5157
71	6.55	3.129	138	1.781	4791
71	7	2.989	138	1.711	4834
71	7.41	2.989	138	1.711	5170
71	7.82	3.083	138	1.758	4824
71	8.2	2.942	138	1.688	5359
71	8.61	2.989	138	1.711	5172
71	9.02	3.036	138	1.734	5474
71	9.43	2.942	138	1.688	5316
71	9.85	2.895	138	1.664	5545
71	10.32	2.989	138	1.711	5138
71	10.77	2.895	138	1.664	4982
71	11.16	2.848	138	1.641	5302
71	11.53	3.036	138	1.734	4613
71	11.89	2.989	138	1.711	5261
71	12.44	2.942	138	1.688	5219
71	12.86	3.036	138	1.734	4643
71	13.26	2.895	138	1.664	5027
71	13.64	2.895	138	1.664	4884
71	14.01	3.083	138	1.758	4038
71	14.43	2.895	138	1.664	5204
71	14.91	2.848	138	1.641	4934
71	15.32	3.083	138	1.758	4637
71	15.7	2.848	138	1.641	5644
71	16.13	2.895	138	1.664	5068
71	16.51	2.942	138	1.688	4780
71	16.9	2.848	138	1.641	5300
71	17.43	2.848	138	1.641	5451

71	17.76	2.989	138	1.711	5079
71	18.15	2.942	138	1.688	5055
71	18.66	3.036	138	1.734	4798
71	19.04	3.222	138	1.828	4160
71	19.43	3.036	138	1.734	4435
71	19.92	2.942	138	1.688	4851
71	20.26	3.129	138	1.781	4737
71	20.81	2.942	138	1.688	5247
71	21.19	2.895	138	1.664	4979
71	21.55	3.036	138	1.734	4905
71	21.96	2.989	138	1.711	5251
71	22.37	2.942	138	1.688	4870
71	22.76	3.036	138	1.734	4697
71	23.2	3.036	138	1.734	4907
71	23.64	2.942	138	1.688	4827
71	24.05	3.036	138	1.734	5565
71	24.43	2.989	138	1.711	4911
71	24.85	2.942	138	1.688	5198
71	25.26	2.989	138	1.711	6108
71	25.66	2.942	138	1.688	5383
71	26.06	2.942	138	1.688	5760
71	26.4	2.942	138	1.688	7056
71	26.9	2.848	138	1.641	5715
71	27.33	2.848	138	1.641	5550
71	27.74	2.895	138	1.664	6922
71	28.13	2.848	138	1.641	5279
71	28.57	2.8	138	1.617	5304
71	28.91	2.8	138	1.617	7459
71	29.34	2.753	138	1.594	6187
71	29.8	2.753	138	1.594	5566
71	30.2	2.8	138	1.617	7189
71	30.6	2.8	138	1.617	5292
71	31.02	2.848	138	1.641	4722
71	31.35	2.848	138	1.641	6438
71	31.76	2.895	138	1.664	5313
71	32.28	2.895	138	1.664	5598
71	32.69	2.989	138	1.711	6919
71	33.12	2.942	138	1.688	5152
71	33.55	2.942	138	1.688	4056
71	33.92	3.036	138	1.734	5504
71	34.33	2.989	138	1.711	5107
71	34.8	2.895	138	1.664	4802
71	35.21	2.989	138	1.711	6712
71	35.6	2.942	138	1.688	5020
71	36.02	3.083	138	1.758	5329
71	36.35	3.036	138	1.734	6369
71	36.77	3.083	138	1.758	4292

71	37.27	3.222	138	1.828	4659
71	37.59	3.222	138	1.828	5541
71	37.94	3.315	138	1.875	4416
71	38.48	3.362	138	1.898	3640
72	0.37	3.5	140	1.969	4195
72	0.7	3.546	140	1.992	4231
72	1.12	3.5	140	1.969	5781
72	1.62	3.5	140	1.969	4462
72	1.98	3.408	140	1.922	4595
72	2.31	3.408	140	1.922	5623
72	2.84	3.362	140	1.898	4802
72	3.22	3.315	140	1.875	4267
72	3.58	3.315	140	1.875	6891
72	4	3.269	140	1.852	4819
72	4.37	3.222	140	1.828	4888
72	4.8	3.269	140	1.852	6609
72	5.24	3.176	140	1.805	4910
72	5.63	2.942	140	1.688	5244
72	6.05	3.176	140	1.805	7151
72	6.43	3.036	140	1.734	5130
72	6.84	3.036	140	1.734	5117
72	7.3	3.129	140	1.781	6360
72	7.83	2.989	140	1.711	4885
72	8.21	2.989	140	1.711	4350
72	8.56	2.989	140	1.711	6726
72	8.96	2.942	140	1.688	5178
72	9.38	2.942	140	1.688	5554
72	9.79	2.895	140	1.664	7212
72	10.23	2.848	140	1.641	4763
72	10.66	2.848	140	1.641	5171
72	11.02	2.895	140	1.664	6347
72	11.46	2.942	140	1.688	5009
72	11.84	2.942	140	1.688	5415
72	12.3	2.989	140	1.711	6981
72	12.67	2.989	140	1.711	5256
72	13.2	2.942	140	1.688	5395
72	13.54	2.989	140	1.711	6682
72	13.92	2.989	140	1.711	5320
72	14.33	2.942	140	1.688	4554
72	14.77	2.942	140	1.688	6469
72	15.17	2.848	140	1.641	4951
72	15.54	2.8	140	1.617	4691
72	15.98	2.895	140	1.664	7394
72	16.41	2.848	140	1.641	5205
72	16.87	2.848	140	1.641	5144
72	17.23	2.895	140	1.664	6746
72	17.67	2.895	140	1.664	4817

72	18.06	2.895	140	1.664	5338
72	18.45	2.989	140	1.711	6973
72	18.82	2.942	140	1.688	4920
72	19.36	3.036	140	1.734	4294
72	19.69	3.083	140	1.758	5289
72	20.18	3.129	140	1.781	4648
72	20.56	2.942	140	1.688	5057
72	20.97	2.989	140	1.711	7057
72	21.45	2.989	140	1.711	5275
72	21.82	2.895	140	1.664	4734
72	22.17	2.989	140	1.711	6862
72	22.69	2.989	140	1.711	4605
72	23.1	2.989	140	1.711	5097
72	23.49	2.989	140	1.711	6219
72	23.92	2.942	140	1.688	4995
72	24.3	2.942	140	1.688	5118
72	24.69	2.989	140	1.711	6612
72	25.16	2.942	140	1.688	5224
72	25.57	2.942	140	1.688	4970
72	25.94	2.942	140	1.688	5222
72	26.3	2.895	140	1.664	5220
72	26.73	2.895	140	1.664	5304
72	27.15	2.942	140	1.688	5966
72	27.69	2.753	140	1.594	5319
72	28.05	2.753	140	1.594	4835
72	28.44	2.942	140	1.688	5316
72	28.79	2.8	140	1.617	5061
72	29.26	2.753	140	1.594	5069
72	29.71	2.942	140	1.688	4863
72	30.12	2.8	140	1.617	5328
72	30.54	2.848	140	1.641	5061
72	30.95	3.036	140	1.734	4724
72	31.36	2.942	140	1.688	4876
72	31.79	2.895	140	1.664	5196
72	32.17	3.083	140	1.758	4658
72	32.57	2.989	140	1.711	4964
72	33.02	2.942	140	1.688	5249
72	33.46	3.036	140	1.734	4642
72	33.89	2.895	140	1.664	4747
72	34.35	2.989	140	1.711	4366
72	34.66	3.129	140	1.781	3737
72	34.97	3.083	140	1.758	4089
72	35.47	3.129	140	1.781	4455
72	35.87	3.269	140	1.852	4046
72	36.21	3.222	140	1.828	3922
72	36.73	3.269	140	1.852	4348
72	37.13	3.408	140	1.922	4458

72	37.57	3.269	140	1.852	4531
72	37.98	3.362	140	1.898	3941
72	38.36	3.546	140	1.992	4061
73	0.33	3.5	142	1.969	5815
73	0.77	3.408	142	1.922	4100
73	1.19	3.408	142	1.922	4329
73	1.62	3.454	142	1.945	5096
73	2.05	3.362	142	1.898	5053
73	2.45	3.362	142	1.898	4957
73	2.83	3.408	142	1.922	4804
73	3.3	3.269	142	1.852	4903
73	3.7	3.269	142	1.852	4663
73	4.07	3.362	142	1.898	4804
73	4.58	3.222	142	1.828	4903
73	4.91	3.129	142	1.781	4809
73	5.22	3.315	142	1.875	5029
73	5.69	3.176	142	1.805	5273
73	6.11	3.129	142	1.781	5074
73	6.55	3.222	142	1.828	4750
73	7.02	3.083	142	1.758	4967
73	7.43	3.083	142	1.758	5095
73	7.8	3.129	142	1.781	4754
73	8.25	2.989	142	1.711	4895
73	8.68	3.036	142	1.734	5261
73	9.05	3.129	142	1.781	4743
73	9.46	2.942	142	1.688	5474
73	9.91	2.942	142	1.688	4967
73	10.35	3.129	142	1.781	5246
73	10.82	2.989	142	1.711	4971
73	11.15	2.989	142	1.711	5122
73	11.54	3.129	142	1.781	4765
73	11.9	3.036	142	1.734	5276
73	12.43	3.036	142	1.734	5379
73	12.86	3.176	142	1.805	4775
73	13.32	3.036	142	1.734	4911
73	13.68	2.989	142	1.711	5012
73	14.05	3.083	142	1.758	5009
73	14.48	2.989	142	1.711	5096
73	14.9	2.942	142	1.688	5099
73	15.28	2.989	142	1.711	4954
73	15.71	2.895	142	1.664	5540
73	16.11	2.942	142	1.688	4990
73	16.5	3.036	142	1.734	4727
73	16.91	2.942	142	1.688	5235
73	17.41	2.942	142	1.688	5452
73	17.82	3.129	142	1.781	4712
73	18.18	3.176	142	1.805	5017

73	18.63	3.176	142	1.805	4500
73	19.06	3.454	142	1.945	4376
73	19.46	3.222	142	1.828	4616
73	19.91	3.222	142	1.828	4705
73	20.28	3.269	142	1.852	4952
73	20.79	3.176	142	1.805	5160
73	21.16	3.129	142	1.781	4732
73	21.55	3.176	142	1.805	4397
73	21.94	3.083	142	1.758	4905
73	22.36	3.083	142	1.758	5233
73	22.69	3.222	142	1.828	4429
73	23.16	3.083	142	1.758	4405
73	23.56	3.036	142	1.734	4391
73	24.02	3.222	142	1.828	4629
73	24.37	3.083	142	1.758	4791
73	24.78	3.129	142	1.781	4656
73	25.23	3.222	142	1.828	3989
73	25.66	3.083	142	1.758	4484
73	26.05	3.083	142	1.758	4641
73	26.39	3.129	142	1.781	4617
73	26.91	2.942	142	1.688	4931
73	27.27	2.895	142	1.664	5052
73	27.74	2.989	142	1.711	4016
73	28.11	2.895	142	1.664	5270
73	28.55	2.848	142	1.641	4727
73	28.91	2.942	142	1.688	4833
73	29.35	2.753	142	1.594	6143
73	29.77	2.8	142	1.617	5552
73	30.19	2.942	142	1.688	5142
73	30.6	2.8	142	1.617	6967
73	30.98	2.848	142	1.641	5300
73	31.36	2.989	142	1.711	4238
73	31.75	2.895	142	1.664	7658
73	32.24	3.036	142	1.734	5144
73	32.72	3.129	142	1.781	4769
73	33.16	2.895	142	1.664	6577
73	33.52	3.176	142	1.805	3337
73	33.97	3.269	142	1.852	2755
73	34.35	3.083	142	1.758	5902
73	34.78	3.222	142	1.828	4271
73	35.2	3.269	142	1.852	4538
73	35.58	3.176	142	1.805	6912
73	36	3.222	142	1.828	4909
73	36.38	3.408	142	1.922	4391
73	36.74	3.176	142	1.805	6918
73	37.27	3.408	142	1.922	4971
73	37.62	3.454	142	1.945	4272

73	37.98	3.315	142	1.875	7007
73	38.53	3.454	142	1.945	3825
74	0.38	3.5	144	1.969	4004
74	0.72	3.5	144	1.969	3724
74	1.09	3.546	144	1.992	4573
74	1.59	3.454	144	1.945	5263
74	2	3.362	144	1.898	4278
74	2.38	3.5	144	1.969	5112
74	2.83	3.269	144	1.852	7347
74	3.23	3.315	144	1.875	4793
74	3.62	3.315	144	1.875	4994
74	4	3.176	144	1.805	7472
74	4.42	3.362	144	1.898	5122
74	4.82	3.315	144	1.875	4257
74	5.21	3.083	144	1.758	6962
74	5.63	3.222	144	1.828	5029
74	6.04	3.315	144	1.875	4713
74	6.4	3.036	144	1.734	7621
74	6.84	3.083	144	1.758	4932
74	7.31	3.222	144	1.828	4985
74	7.75	2.895	144	1.664	7553
74	8.2	3.083	144	1.758	5069
74	8.61	3.176	144	1.805	4362
74	8.94	2.989	144	1.711	7401
74	9.36	3.083	144	1.758	5005
74	9.8	3.129	144	1.781	4886
74	10.17	2.989	144	1.711	7578
74	10.65	3.083	144	1.758	4944
74	11.03	3.176	144	1.805	4717
74	11.49	2.942	144	1.688	7648
74	11.87	3.036	144	1.734	4832
74	12.31	3.269	144	1.852	4714
74	12.69	2.989	144	1.711	7635
74	13.19	3.129	144	1.781	4855
74	13.54	3.222	144	1.828	4114
74	13.91	3.036	144	1.734	7158
74	14.35	3.129	144	1.781	5108
74	14.78	3.222	144	1.828	4714
74	15.2	3.036	144	1.734	7351
74	15.58	3.036	144	1.734	4756
74	16.05	3.129	144	1.781	5020
74	16.42	2.895	144	1.664	7554
74	16.9	2.942	144	1.688	4272
74	17.24	3.036	144	1.734	4544
74	17.62	2.895	144	1.664	7908
74	18.06	2.942	144	1.688	5211
74	18.47	3.083	144	1.758	4233

74	18.82	2.895	144	1.664	7541
74	19.32	3.083	144	1.758	4965
74	19.73	3.315	144	1.875	4382
74	20.13	3.083	144	1.758	6428
74	20.57	2.989	144	1.711	4641
74	21.01	3.129	144	1.781	5165
74	21.42	2.895	144	1.664	7668
74	21.83	3.036	144	1.734	4830
74	22.26	3.083	144	1.758	4545
74	22.77	2.895	144	1.664	7534
74	23.22	3.036	144	1.734	5200
74	23.58	3.222	144	1.828	4459
74	23.94	2.989	144	1.711	7190
74	24.43	2.989	144	1.711	4476
74	24.78	3.176	144	1.805	4664
74	25.15	2.989	144	1.711	7239
74	25.61	3.083	144	1.758	4829
74	25.99	3.129	144	1.781	4480
74	26.36	2.895	144	1.664	7046
74	26.8	2.989	144	1.711	5359
74	27.23	3.036	144	1.734	4805
74	27.7	2.8	144	1.617	7758
74	28.1	2.848	144	1.641	4966
74	28.47	2.989	144	1.711	4411
74	28.85	2.753	144	1.594	7211
74	29.28	2.895	144	1.664	4833
74	29.7	2.989	144	1.711	4147
74	30.17	2.753	144	1.594	8032
74	30.56	2.848	144	1.641	4360
74	30.97	3.083	144	1.758	4328
74	31.36	2.895	144	1.664	7358
74	31.84	2.895	144	1.664	4809
74	32.17	3.036	144	1.734	4160
74	32.58	2.8	144	1.617	7821
74	33.06	2.989	144	1.711	5072
74	33.48	3.129	144	1.781	4936
74	33.89	2.942	144	1.688	7131
74	34.35	3.083	144	1.758	4452
74	34.7	3.269	144	1.852	3865
74	35.01	2.989	144	1.711	5887
74	35.51	3.083	144	1.758	4590
74	35.9	3.269	144	1.852	4363
74	36.28	3.129	144	1.781	5638
74	36.76	3.222	144	1.828	4891
74	37.16	3.408	144	1.922	4672
74	37.51	3.315	144	1.875	5174
74	37.99	3.454	144	1.945	4667

74	38.42	3.638	144	2.039	4596
75	0.36	3.546	146	1.992	4203
75	0.83	3.362	146	1.898	5743
75	1.22	3.315	146	1.875	4585
75	1.63	3.408	146	1.922	4641
75	2.1	3.269	146	1.852	6270
75	2.47	3.269	146	1.852	3953
75	2.83	3.362	146	1.898	5113
75	3.3	3.129	146	1.781	7167
75	3.68	3.269	146	1.852	4773
75	4.12	3.362	146	1.898	4352
75	4.57	3.129	146	1.781	7090
75	4.92	3.315	146	1.875	5026
75	5.28	3.362	146	1.898	4075
75	5.77	3.176	146	1.805	7077
75	6.15	3.222	146	1.828	4791
75	6.56	3.315	146	1.875	5024
75	7.05	2.989	146	1.711	7122
75	7.45	3.036	146	1.734	4585
75	7.79	3.129	146	1.781	4818
75	8.28	2.895	146	1.664	7469
75	8.66	2.989	146	1.711	5047
75	9.06	3.129	146	1.781	5279
75	9.44	2.942	146	1.688	7269
75	9.93	3.036	146	1.734	5245
75	10.34	3.176	146	1.805	5179
75	10.76	2.942	146	1.688	5682
75	11.17	3.083	146	1.758	5130
75	11.56	3.222	146	1.828	4893
75	11.96	3.083	146	1.758	5823
75	12.41	3.129	146	1.781	5091
75	12.84	3.269	146	1.852	4405
75	13.25	3.176	146	1.805	4803
75	13.65	3.176	146	1.805	5357
75	14.03	3.269	146	1.852	4906
75	14.54	3.222	146	1.828	4641
75	14.87	3.083	146	1.758	4971
75	15.24	3.222	146	1.828	4639
75	15.74	2.989	146	1.711	5134
75	16.08	3.036	146	1.734	5027
75	16.43	3.129	146	1.781	4698
75	16.93	2.989	146	1.711	5015
75	17.38	3.036	146	1.734	5090
75	17.82	3.129	146	1.781	4272
75	18.27	3.036	146	1.734	4723
75	18.64	3.129	146	1.781	5093
75	19.07	3.269	146	1.852	4347

75	19.54	3.176	146	1.805	4912
75	19.92	2.989	146	1.711	5130
75	20.37	3.129	146	1.781	5111
75	20.84	2.989	146	1.711	5366
75	21.19	2.989	146	1.711	5327
75	21.57	3.129	146	1.781	5075
75	22.05	2.989	146	1.711	5100
75	22.43	3.036	146	1.734	4980
75	22.77	3.176	146	1.805	4437
75	23.2	3.036	146	1.734	5060
75	23.62	3.036	146	1.734	5001
75	24.08	3.176	146	1.805	4881
75	24.46	3.036	146	1.734	5327
75	24.88	3.129	146	1.781	5053
75	25.28	3.176	146	1.805	4687
75	25.77	2.989	146	1.711	5263
75	26.11	2.942	146	1.688	4994
75	26.48	3.036	146	1.734	5039
75	26.96	2.848	146	1.641	5092
75	27.35	2.848	146	1.641	5086
75	27.74	2.989	146	1.711	5089
75	28.14	2.8	146	1.617	5368
75	28.6	2.8	146	1.617	5320
75	29.01	2.942	146	1.688	5109
75	29.42	2.8	146	1.617	5205
75	29.86	2.8	146	1.617	5183
75	30.29	2.942	146	1.688	5003
75	30.67	2.895	146	1.664	5126
75	31.05	2.848	146	1.641	4993
75	31.45	2.989	146	1.711	4972
75	31.89	2.989	146	1.711	4605
75	32.32	3.036	146	1.734	4986
75	32.79	3.222	146	1.828	4672
75	33.2	3.083	146	1.758	4589
75	33.58	3.129	146	1.781	4261
75	34.02	3.269	146	1.852	3859
75	34.42	3.176	146	1.805	4724
75	34.82	3.176	146	1.805	4305
75	35.22	3.315	146	1.875	4159
75	35.61	3.222	146	1.828	4851
75	36.02	3.269	146	1.852	4591
75	36.42	3.408	146	1.922	3986
75	36.82	3.269	146	1.852	4678
75	37.29	3.362	146	1.898	4739
75	37.68	3.454	146	1.945	5327
75	38.06	3.408	146	1.922	4820
75	38.52	3.454	146	1.945	4390

76	0.28	3.546	148	1.992	4295
76	0.7	3.5	148	1.969	4594
76	1.12	3.592	148	2.016	4963
76	1.52	3.362	148	1.898	4659
76	1.97	3.315	148	1.875	4663
76	2.38	3.408	148	1.922	4746
76	2.77	3.362	148	1.898	4828
76	3.19	3.222	148	1.828	4901
76	3.62	3.315	148	1.875	4939
76	3.99	3.222	148	1.828	5122
76	4.39	3.222	148	1.828	5124
76	4.81	3.315	148	1.875	4640
76	5.14	3.222	148	1.828	4962
76	5.57	3.176	148	1.805	4893
76	6.03	3.269	148	1.852	4577
76	6.39	3.176	148	1.805	5060
76	6.82	3.083	148	1.758	5136
76	7.26	3.269	148	1.852	5136
76	7.66	3.083	148	1.758	5007
76	8.13	3.036	148	1.734	5201
76	8.55	3.129	148	1.781	5143
76	8.92	2.989	148	1.711	5152
76	9.33	2.989	148	1.711	4914
76	9.76	3.129	148	1.781	4860
76	10.16	2.942	148	1.688	4844
76	10.57	2.989	148	1.711	5027
76	11	3.176	148	1.805	5234
76	11.47	3.036	148	1.734	4955
76	11.87	3.036	148	1.734	4788
76	12.26	3.176	148	1.805	4952
76	12.64	3.083	148	1.758	5105
76	13.13	3.176	148	1.805	4733
76	13.5	3.222	148	1.828	4757
76	13.86	3.176	148	1.805	5049
76	14.36	3.222	148	1.828	5065
76	14.76	3.269	148	1.852	5131
76	15.17	3.129	148	1.781	5075
76	15.56	3.176	148	1.805	4975
76	16.01	3.222	148	1.828	4583
76	16.42	3.036	148	1.734	5204
76	16.85	3.083	148	1.758	5391
76	17.25	3.129	148	1.781	4855
76	17.59	3.036	148	1.734	5427
76	18.06	2.989	148	1.711	5238
76	18.48	3.129	148	1.781	4384
76	18.78	3.036	148	1.734	4789
76	19.24	3.036	148	1.734	4966

76	19.73	3.269	148	1.852	3945
76	20.09	3.129	148	1.781	4314
76	20.58	2.989	148	1.711	4616
76	21.02	3.083	148	1.758	5061
76	21.37	2.989	148	1.711	5290
76	21.84	2.942	148	1.688	5145
76	22.26	3.083	148	1.758	4962
76	22.72	2.989	148	1.711	5047
76	23.23	3.036	148	1.734	5073
76	23.57	3.083	148	1.758	4137
76	23.9	3.036	148	1.734	4668
76	24.39	2.989	148	1.711	4760
76	24.76	3.176	148	1.805	4099
76	25.08	3.036	148	1.734	5316
76	25.63	3.036	148	1.734	5237
76	25.98	3.129	148	1.781	4700
76	26.36	2.942	148	1.688	5260
76	26.79	3.036	148	1.734	5017
76	27.24	3.083	148	1.758	5431
76	27.65	2.942	148	1.688	5299
76	28.05	2.895	148	1.664	4816
76	28.44	3.036	148	1.734	4542
76	28.84	2.942	148	1.688	4989
76	29.25	2.942	148	1.688	4383
76	29.67	3.083	148	1.758	4557
76	30.12	2.848	148	1.641	4886
76	30.55	2.942	148	1.688	5019
76	30.94	3.036	148	1.734	5120
76	31.31	2.895	148	1.664	4751
76	31.81	2.895	148	1.664	5373
76	32.16	3.129	148	1.781	4532
76	32.56	2.989	148	1.711	4894
76	33.05	3.083	148	1.758	5035
76	33.45	3.129	148	1.781	5014
76	33.83	3.036	148	1.734	4780
76	34.28	2.989	148	1.711	4916
76	34.66	3.269	148	1.852	4463
76	35.02	3.036	148	1.734	4461
76	35.46	3.129	148	1.781	4143
76	35.91	2.989	148	1.711	4397
76	36.29	3.129	148	1.781	4673
76	36.72	3.222	148	1.828	4647
76	37.13	3.315	148	1.875	4616
76	37.47	3.222	148	1.828	4443
76	37.96	3.222	148	1.828	4456
76	38.38	3.362	148	1.898	4975
77	0.27	3.408	150	1.922	5031

77	0.78	3.454	150	1.945	5235
77	1.19	3.408	150	1.922	4555
77	1.58	3.315	150	1.875	4854
77	2.04	3.315	150	1.875	5065
77	2.41	3.129	150	1.781	4340
77	2.79	3.222	150	1.828	4354
77	3.21	3.222	150	1.828	4956
77	3.6	3.315	150	1.875	4505
77	4.07	3.176	150	1.805	4699
77	4.51	3.222	150	1.828	4768
77	4.9	3.362	150	1.898	5183
77	5.24	3.176	150	1.805	4990
77	5.7	3.036	150	1.734	5255
77	6.08	3.176	150	1.805	4999
77	6.51	3.036	150	1.734	4845
77	6.98	2.989	150	1.711	5090
77	7.39	3.129	150	1.781	5168
77	7.75	2.989	150	1.711	4639
77	8.23	3.083	150	1.758	4655
77	8.62	3.129	150	1.781	5084
77	8.98	2.989	150	1.711	4818
77	9.42	2.989	150	1.711	5090
77	9.86	3.129	150	1.781	5092
77	10.29	3.083	150	1.758	4494
77	10.72	3.083	150	1.758	4705
77	11.13	3.315	150	1.875	4410
77	11.52	3.269	150	1.852	4650
77	11.93	3.129	150	1.781	4811
77	12.33	3.269	150	1.852	4289
77	12.76	3.176	150	1.805	4449
77	13.22	3.222	150	1.828	4244
77	13.57	3.269	150	1.852	3713
77	13.95	3.129	150	1.781	4484
77	14.48	3.083	150	1.758	4188
77	14.86	3.222	150	1.828	4232
77	15.2	3.036	150	1.734	4816
77	15.67	3.129	150	1.781	4314
77	16.04	3.176	150	1.805	4433
77	16.38	3.083	150	1.758	4308
77	16.85	3.176	150	1.805	4152
77	17.34	3.315	150	1.875	3582
77	17.74	3.176	150	1.805	3568
77	18.18	3.269	150	1.852	4013
77	18.56	3.5	150	1.969	3766
77	19.01	3.362	150	1.898	3920
77	19.49	3.176	150	1.805	4275
77	19.85	3.222	150	1.828	4160

77	20.36	3.176	150	1.805	4996
77	20.78	3.129	150	1.781	4685
77	21.11	3.176	150	1.805	4316
77	21.49	3.036	150	1.734	4815
77	21.95	2.942	150	1.688	4934
77	22.32	3.129	150	1.781	4503
77	22.7	2.989	150	1.711	4666
77	23.15	2.942	150	1.688	4983
77	23.55	3.176	150	1.805	3985
77	23.98	3.036	150	1.734	5084
77	24.38	3.083	150	1.758	4907
77	24.8	3.176	150	1.805	4209
77	25.17	3.036	150	1.734	4561
77	25.63	2.989	150	1.711	4619
77	26.04	3.083	150	1.758	4965
77	26.4	2.942	150	1.688	5304
77	26.85	2.895	150	1.664	4637
77	27.23	3.036	150	1.734	5016
77	27.63	2.942	150	1.688	5187
77	28.03	2.895	150	1.664	4448
77	28.49	3.036	150	1.734	4651
77	28.92	2.942	150	1.688	4942
77	29.34	2.942	150	1.688	5522
77	29.76	3.083	150	1.758	5214
77	30.17	2.942	150	1.688	5330
77	30.6	2.989	150	1.711	4940
77	30.97	3.083	150	1.758	4997
77	31.39	2.989	150	1.711	4470
77	31.84	3.036	150	1.734	4847
77	32.25	3.129	150	1.781	4744
77	32.65	3.036	150	1.734	5032
77	33.07	3.036	150	1.734	4952
77	33.46	3.269	150	1.852	5403
77	33.92	2.989	150	1.711	4247
77	34.36	3.083	150	1.758	4245
77	34.71	3.176	150	1.805	4473
77	35.12	3.176	150	1.805	4604
77	35.56	3.176	150	1.805	4330
77	35.91	3.408	150	1.922	4585
77	36.3	3.176	150	1.805	4584
77	36.79	3.315	150	1.875	4844
77	37.19	3.408	150	1.922	4480
77	37.59	3.362	150	1.898	4316
77	38.04	3.362	150	1.898	4516
78	0.26	3.5	152	1.969	2726
78	0.67	3.408	152	1.922	3567
78	1.07	3.546	152	1.992	4498

78	1.46	3.454	152	1.945	5083
78	1.9	3.454	152	1.945	4762
78	2.3	3.5	152	1.969	4661
78	2.69	3.315	152	1.875	4361
78	3.18	3.269	152	1.852	4475
78	3.58	3.176	152	1.805	4749
78	3.94	3.362	152	1.898	4669
78	4.39	3.362	152	1.898	4507
78	4.78	3.362	152	1.898	4317
78	5.12	3.269	152	1.852	4400
78	5.55	3.222	152	1.828	4529
78	6.03	3.408	152	1.922	5152
78	6.43	3.269	152	1.852	4935
78	6.84	3.222	152	1.828	4262
78	7.26	3.222	152	1.828	4441
78	7.63	3.176	152	1.805	4637
78	8.08	3.176	152	1.805	4928
78	8.52	3.222	152	1.828	5018
78	8.91	3.129	152	1.781	5379
78	9.32	3.036	152	1.734	5221
78	9.73	3.176	152	1.805	5393
78	10.16	3.083	152	1.758	5355
78	10.56	3.083	152	1.758	5103
78	10.99	3.222	152	1.828	5145
78	11.44	3.176	152	1.805	4589
78	11.84	3.129	152	1.781	5253
78	12.25	3.269	152	1.852	5134
78	12.69	3.083	152	1.758	4920
78	13.11	3.176	152	1.805	4873
78	13.51	3.269	152	1.852	4417
78	13.88	3.083	152	1.758	4942
78	14.32	3.083	152	1.758	4998
78	14.72	3.222	152	1.828	5066
78	15.14	3.036	152	1.734	5505
78	15.54	3.036	152	1.734	4982
78	15.97	3.083	152	1.758	4593
78	16.35	2.989	152	1.711	5012
78	16.83	2.989	152	1.711	5011
78	17.25	3.036	152	1.734	4769
78	17.63	2.942	152	1.688	4692
78	18.06	2.989	152	1.711	4969
78	18.48	3.176	152	1.805	4576
78	18.81	2.989	152	1.711	4649
78	19.23	3.083	152	1.758	4890
78	19.72	3.269	152	1.852	4634
78	20.09	3.176	152	1.805	4267
78	20.56	2.989	152	1.711	4840

78	21.01	3.176	152	1.805	5142
78	21.4	3.036	152	1.734	5026
78	21.85	2.989	152	1.711	5238
78	22.23	3.129	152	1.781	4865
78	22.73	2.989	152	1.711	5186
78	23.17	3.036	152	1.734	4840
78	23.52	3.129	152	1.781	4981
78	23.89	3.036	152	1.734	5004
78	24.36	3.036	152	1.734	5178
78	24.73	3.129	152	1.781	4567
78	25.07	3.083	152	1.758	5158
78	25.6	3.083	152	1.758	4982
78	25.99	3.176	152	1.805	5097
78	26.35	2.989	152	1.711	5312
78	26.77	2.989	152	1.711	5223
78	27.19	3.083	152	1.758	4941
78	27.61	2.989	152	1.711	5412
78	28.03	2.895	152	1.664	5216
78	28.41	3.036	152	1.734	5479
78	28.81	2.942	152	1.688	5252
78	29.24	2.895	152	1.664	5406
78	29.65	2.989	152	1.711	4580
78	30.09	2.848	152	1.641	5222
78	30.54	2.895	152	1.664	4739
78	30.9	3.036	152	1.734	4746
78	31.29	2.942	152	1.688	5484
78	31.75	2.942	152	1.688	5214
78	32.14	3.083	152	1.758	5100
78	32.52	2.989	152	1.711	5102
78	33	3.036	152	1.734	4910
78	33.4	3.176	152	1.805	4482
78	33.78	2.989	152	1.711	4768
78	34.23	3.036	152	1.734	4907
78	34.61	3.222	152	1.828	4726
78	34.99	3.036	152	1.734	4821
78	35.41	3.036	152	1.734	4969
78	35.87	3.315	152	1.875	4657
78	36.29	3.176	152	1.805	4520
78	36.68	3.036	152	1.734	4468
78	37.12	3.269	152	1.852	5016
78	37.49	3.083	152	1.758	4797
78	37.93	3.269	152	1.852	4393
78	38.33	3.315	152	1.875	3887
79	0.38	3.454	154	1.945	4401
79	0.86	3.408	154	1.922	4521
79	1.24	3.362	154	1.898	4467
79	1.64	3.315	154	1.875	5173

79	2.07	3.222	154	1.828	4702
79	2.44	3.222	154	1.828	4672
79	2.87	3.269	154	1.852	4542
79	3.24	3.269	154	1.852	5000
79	3.69	3.269	154	1.852	4715
79	4.11	3.269	154	1.852	4801
79	4.54	3.222	154	1.828	5211
79	4.92	3.222	154	1.828	4879
79	5.29	3.222	154	1.828	4811
79	5.73	3.129	154	1.781	4853
79	6.14	3.129	154	1.781	4050
79	6.53	3.269	154	1.852	4498
79	6.99	2.989	154	1.711	4811
79	7.36	3.129	154	1.781	4661
79	7.78	3.176	154	1.805	4866
79	8.21	3.083	154	1.758	4865
79	8.62	3.083	154	1.758	4839
79	8.99	3.222	154	1.828	4870
79	9.41	3.083	154	1.758	4720
79	9.85	3.083	154	1.758	4660
79	10.27	3.222	154	1.828	4970
79	10.71	3.083	154	1.758	4435
79	11.12	3.129	154	1.781	4751
79	11.5	3.269	154	1.852	5189
79	11.9	3.129	154	1.781	4640
79	12.33	3.129	154	1.781	5090
79	12.74	3.222	154	1.828	5539
79	13.17	3.083	154	1.758	5059
79	13.58	3.083	154	1.758	4745
79	13.96	3.176	154	1.805	4792
79	14.46	3.036	154	1.734	5316
79	14.86	2.942	154	1.688	4667
79	15.24	3.083	154	1.758	5053
79	15.67	2.942	154	1.688	5178
79	16.07	2.895	154	1.664	5292
79	16.43	3.036	154	1.734	4870
79	16.86	2.942	154	1.688	4793
79	17.35	2.942	154	1.688	4547
79	17.72	3.083	154	1.758	4575
79	18.15	2.942	154	1.688	4557
79	18.58	2.989	154	1.711	4663
79	19.02	3.222	154	1.828	4479
79	19.48	3.129	154	1.781	4637
79	19.87	2.895	154	1.664	5323
79	20.34	3.036	154	1.734	5214
79	20.76	2.895	154	1.664	5658
79	21.12	2.895	154	1.664	4787

79	21.52	3.083	154	1.758	4877
79	21.96	2.942	154	1.688	5133
79	22.35	2.989	154	1.711	4651
79	22.72	3.222	154	1.828	4827
79	23.18	3.036	154	1.734	5239
79	23.59	3.083	154	1.758	4743
79	23.97	3.176	154	1.805	4989
79	24.38	2.989	154	1.711	5011
79	24.8	2.989	154	1.711	5367
79	25.2	3.083	154	1.758	5189
79	25.67	2.989	154	1.711	5334
79	26.08	2.895	154	1.664	5660
79	26.44	3.036	154	1.734	4753
79	26.86	2.989	154	1.711	5113
79	27.31	2.895	154	1.664	4771
79	27.7	3.036	154	1.734	4442
79	28.1	2.848	154	1.641	5464
79	28.56	2.8	154	1.617	5291
79	28.97	2.942	154	1.688	4695
79	29.38	2.753	154	1.594	5233
79	29.79	2.8	154	1.617	5370
79	30.18	2.942	154	1.688	4712
79	30.6	2.848	154	1.641	5580
79	31.01	2.8	154	1.617	5081
79	31.44	2.942	154	1.688	5391
79	31.91	2.895	154	1.664	5409
79	32.28	2.989	154	1.711	4708
79	32.66	3.083	154	1.758	4590
79	33.06	2.942	154	1.688	4968
79	33.49	2.989	154	1.711	4807
79	33.97	3.176	154	1.805	4762
79	34.38	2.989	154	1.711	4802
79	34.77	2.989	154	1.711	4386
79	35.12	3.129	154	1.781	4249
79	35.57	3.083	154	1.758	4287
79	35.99	3.083	154	1.758	4548
79	36.37	3.269	154	1.852	4151
79	36.82	3.176	154	1.805	4582
79	37.21	3.315	154	1.875	4417
79	37.61	3.454	154	1.945	3925
79	38.07	3.408	154	1.922	3942
79	38.47	3.5	154	1.969	4248
80	0.18	3.315	156	1.875	3752
80	0.62	3.269	156	1.852	3673
80	1.04	3.408	156	1.922	4466
80	1.43	3.315	156	1.875	4574
80	1.86	3.222	156	1.828	5045

80	2.27	3.269	156	1.852	4897
80	2.67	3.129	156	1.781	4750
80	3.09	3.269	156	1.852	5282
80	3.48	3.269	156	1.852	4844
80	3.92	3.176	156	1.805	4875
80	4.35	3.222	156	1.828	5043
80	4.74	3.222	156	1.828	5092
80	5.15	3.176	156	1.805	5013
80	5.52	3.176	156	1.805	4661
80	5.98	3.222	156	1.828	5295
80	6.43	3.036	156	1.734	4874
80	6.84	2.989	156	1.711	5206
80	7.22	3.129	156	1.781	4153
80	7.54	2.848	156	1.641	5055
80	8.04	3.036	156	1.734	5101
80	8.46	3.129	156	1.781	5118
80	8.86	3.036	156	1.734	5233
80	9.29	3.036	156	1.734	5393
80	9.69	3.176	156	1.805	5113
80	10.1	3.083	156	1.758	5267
80	10.55	3.036	156	1.734	5027
80	10.96	3.222	156	1.828	4898
80	11.39	3.083	156	1.758	4424
80	11.79	3.083	156	1.758	4995
80	12.2	3.176	156	1.805	5319
80	12.64	3.036	156	1.734	4584
80	13.05	3.083	156	1.758	4781
80	13.42	3.176	156	1.805	4917
80	13.83	2.989	156	1.711	4669
80	14.26	3.036	156	1.734	4537
80	14.7	3.129	156	1.781	4943
80	15.12	2.989	156	1.711	5065
80	15.54	2.895	156	1.664	4033
80	15.91	3.036	156	1.734	4656
80	16.34	2.895	156	1.664	5023
80	16.83	2.895	156	1.664	4415
80	17.18	2.989	156	1.711	4748
80	17.57	2.848	156	1.641	5417
80	17.99	2.8	156	1.617	4856
80	18.43	2.942	156	1.688	5077
80	18.76	2.8	156	1.617	5167
80	19.17	2.848	156	1.641	4777
80	19.65	3.036	156	1.734	4683
80	20.05	2.942	156	1.688	4726
80	20.49	2.753	156	1.594	5523
80	20.92	2.942	156	1.688	5271
80	21.37	2.8	156	1.617	5348

80	21.77	2.753	156	1.594	5259
80	22.15	2.895	156	1.664	4662
80	22.64	2.8	156	1.617	5679
80	23.08	2.8	156	1.617	4963
80	23.43	2.989	156	1.711	4944
80	23.83	2.848	156	1.641	5490
80	24.24	2.895	156	1.664	5434
80	24.63	2.942	156	1.688	4816
80	25.01	2.848	156	1.641	5598
80	25.47	2.8	156	1.617	5504
80	25.86	2.895	156	1.664	5019
80	26.29	2.753	156	1.594	5436
80	26.71	2.706	156	1.57	5804
80	27.1	2.8	156	1.617	5133
80	27.53	2.658	156	1.547	5437
80	27.94	2.658	156	1.547	5632
80	28.31	2.848	156	1.641	5119
80	28.71	2.706	156	1.57	5737
80	29.17	2.658	156	1.547	5456
80	29.59	2.8	156	1.617	4814
80	30.02	2.658	156	1.547	5124
80	30.42	2.658	156	1.547	5405
80	30.84	2.848	156	1.641	5000
80	31.24	2.753	156	1.594	5121
80	31.66	2.706	156	1.57	4959
80	32.11	2.895	156	1.664	4763
80	32.47	2.8	156	1.617	4809
80	32.96	2.8	156	1.617	5253
80	33.31	2.895	156	1.664	4654
80	33.73	2.8	156	1.617	5010
80	34.17	2.848	156	1.641	3981
80	34.56	2.942	156	1.688	4343
80	34.95	2.895	156	1.664	4744
80	35.39	2.848	156	1.641	4642
80	35.81	2.989	156	1.711	3900
80	36.25	2.895	156	1.664	5191
80	36.63	2.942	156	1.688	4372
80	37.08	3.129	156	1.781	4899
80	37.44	3.036	156	1.734	4338
80	37.86	3.222	156	1.828	4191
80	38.28	3.5	156	1.969	4440
81	0.38	3.362	158	1.898	4520
81	0.83	3.222	158	1.828	4665
81	1.22	3.176	158	1.805	4474
81	1.61	3.315	158	1.875	4495
81	2.02	3.222	158	1.828	4709
81	2.41	3.176	158	1.805	4826

81	2.85	3.315	158	1.875	4978
81	3.25	3.176	158	1.805	4804
81	3.68	3.129	158	1.781	5138
81	4.09	3.315	158	1.875	4637
81	4.52	3.129	158	1.781	4964
81	4.92	3.222	158	1.828	4692
81	5.32	3.222	158	1.828	5592
81	5.74	2.989	158	1.711	5006
81	6.21	2.989	158	1.711	5013
81	6.54	3.129	158	1.781	4168
81	7	2.942	158	1.688	4746
81	7.36	3.036	158	1.734	5028
81	7.84	3.083	158	1.758	4953
81	8.25	2.989	158	1.711	5516
81	8.65	2.989	158	1.711	4654
81	9.05	3.129	158	1.781	4704
81	9.48	3.083	158	1.758	4670
81	9.89	3.129	158	1.781	4251
81	10.31	3.222	158	1.828	4144
81	10.79	3.129	158	1.781	4165
81	11.17	3.176	158	1.805	4212
81	11.55	3.362	158	1.898	3907
81	11.96	3.222	158	1.828	4244
81	12.39	3.176	158	1.805	4434
81	12.8	3.362	158	1.898	4035
81	13.2	3.176	158	1.805	4233
81	13.65	3.129	158	1.781	4560
81	14.06	3.315	158	1.875	3779
81	14.51	3.176	158	1.805	4450
81	14.92	3.176	158	1.805	4334
81	15.32	3.129	158	1.781	3955
81	15.75	3.036	158	1.734	4553
81	16.14	3.083	158	1.758	4193
81	16.5	3.176	158	1.805	4188
81	16.92	3.036	158	1.734	4522
81	17.39	2.989	158	1.711	4154
81	17.81	3.036	158	1.734	4500
81	18.18	2.895	158	1.664	4716
81	18.64	2.848	158	1.641	4527
81	19.05	3.036	158	1.734	4174
81	19.49	2.848	158	1.641	5009
81	19.89	2.706	158	1.57	5448
81	20.37	2.8	158	1.617	5398
81	20.77	2.658	158	1.547	6409
81	21.15	2.658	158	1.547	5845
81	21.59	2.848	158	1.641	4930
81	22.02	2.753	158	1.594	5701

81	22.4	2.753	158	1.594	5359
81	22.75	2.942	158	1.688	4896
81	23.23	2.8	158	1.617	5141
81	23.66	2.8	158	1.617	5360
81	24.03	2.895	158	1.664	5243
81	24.44	2.753	158	1.594	5367
81	24.86	2.753	158	1.594	5352
81	25.3	2.848	158	1.641	4864
81	25.74	2.658	158	1.547	5801
81	26.18	2.658	158	1.547	5897
81	26.55	2.706	158	1.57	5171
81	26.93	2.61	158	1.523	5888
81	27.39	2.562	158	1.5	5739
81	27.79	2.706	158	1.57	5247
81	28.18	2.514	158	1.477	6524
81	28.61	2.562	158	1.5	5638
81	29.01	2.753	158	1.594	5160
81	29.48	2.562	158	1.5	5958
81	29.88	2.61	158	1.523	5660
81	30.27	2.706	158	1.57	5176
81	30.67	2.562	158	1.5	5789
81	31.08	2.658	158	1.547	5719
81	31.48	2.8	158	1.617	4906
81	32	2.61	158	1.523	5391
81	32.32	2.658	158	1.547	5336
81	32.69	2.8	158	1.617	4944
81	33.1	2.658	158	1.547	6182
81	33.52	2.706	158	1.57	5269
81	34	2.848	158	1.641	4874
81	34.36	2.848	158	1.641	4541
81	34.81	2.848	158	1.641	4836
81	35.17	2.989	158	1.711	4453
81	35.59	2.942	158	1.688	4324
81	36.06	2.989	158	1.711	4578
81	36.43	3.176	158	1.805	5019
81	36.88	3.129	158	1.781	4715
81	37.27	3.129	158	1.781	4746
81	37.7	3.315	158	1.875	4252
81	38.11	3.362	158	1.898	4224
81	38.5	3.362	158	1.898	4511
82	0.22	3.408	160	1.922	3726
82	0.66	3.315	160	1.875	3378
82	0.67	3.315	160	1.875	3334
82	1.07	3.5	160	1.969	3746
82	1.5	3.315	160	1.875	4416
82	1.89	3.222	160	1.828	4307
82	2.32	3.315	160	1.875	4083

82	2.71	3.222	160	1.828	4716
82	3.12	3.222	160	1.828	4356
82	3.52	3.408	160	1.922	4698
82	3.95	3.222	160	1.828	3936
82	4.41	3.269	160	1.852	4510
82	4.78	3.269	160	1.852	4314
82	5.2	3.269	160	1.852	4743
82	5.55	3.222	160	1.828	4577
82	6	3.269	160	1.852	4993
82	6.45	3.176	160	1.805	4755
82	6.88	3.129	160	1.781	4873
82	7.25	3.176	160	1.805	4781
82	7.61	3.083	160	1.758	5215
82	8.1	2.989	160	1.711	5008
82	8.52	3.036	160	1.734	4831
82	8.91	2.942	160	1.688	5244
82	9.32	2.942	160	1.688	4995
82	9.72	2.942	160	1.688	4683
82	10.12	2.895	160	1.664	5254
82	10.56	2.848	160	1.641	4195
82	10.97	3.036	160	1.734	5300
82	11.4	2.895	160	1.664	5397
82	11.81	2.895	160	1.664	5414
82	12.21	3.083	160	1.758	4973
82	12.64	2.942	160	1.688	5203
82	13.04	2.989	160	1.711	5340
82	13.43	3.129	160	1.781	5078
82	13.87	2.989	160	1.711	5081
82	14.28	3.036	160	1.734	4543
82	14.74	3.129	160	1.781	4776
82	15.14	3.036	160	1.734	5110
82	15.57	3.036	160	1.734	4623
82	15.93	3.129	160	1.781	4712
82	16.41	2.895	160	1.664	5168
82	16.81	2.848	160	1.641	4661
82	17.18	2.989	160	1.711	5112
82	17.54	2.895	160	1.664	5135
82	17.99	2.848	160	1.641	5657
82	18.39	2.989	160	1.711	4993
82	18.81	2.895	160	1.664	4615
82	19.21	2.848	160	1.641	5070
82	19.63	3.036	160	1.734	4436
82	20.07	2.848	160	1.641	4845
82	20.51	2.706	160	1.57	5958
82	20.91	2.848	160	1.641	5549
82	21.35	2.706	160	1.57	5786
82	21.73	2.706	160	1.57	5590

82	22.13	2.848	160	1.641	4777
82	22.57	2.706	160	1.57	5401
82	23.02	2.753	160	1.594	5335
82	23.39	2.895	160	1.664	4942
82	23.75	2.753	160	1.594	5509
82	24.17	2.8	160	1.617	5233
82	24.62	2.895	160	1.664	5390
82	25.03	2.753	160	1.594	5131
82	25.45	2.753	160	1.594	5634
82	25.85	2.895	160	1.664	5053
82	26.34	2.753	160	1.594	5525
82	26.73	2.706	160	1.57	5920
82	27.14	2.848	160	1.641	5504
82	27.54	2.706	160	1.57	5781
82	27.95	2.658	160	1.547	5617
82	28.34	2.8	160	1.617	5317
82	28.71	2.658	160	1.547	5526
82	29.2	2.658	160	1.547	5747
82	29.62	2.753	160	1.594	5709
82	30.02	2.61	160	1.523	5534
82	30.42	2.61	160	1.523	5868
82	30.82	2.753	160	1.594	5666
82	31.21	2.706	160	1.57	5633
82	31.64	2.658	160	1.547	5331
82	32.14	2.848	160	1.641	5363
82	32.5	2.658	160	1.547	5268
82	32.93	2.658	160	1.547	5372
82	33.28	2.848	160	1.641	4944
82	33.72	2.8	160	1.617	5377
82	34.16	2.848	160	1.641	5067
82	34.55	2.942	160	1.688	5452
82	34.96	2.895	160	1.664	4629
82	35.39	2.989	160	1.711	4060
82	35.78	3.083	160	1.758	4042
82	36.19	2.989	160	1.711	4411
82	36.59	3.083	160	1.758	4318
82	37.04	3.269	160	1.852	4392
82	37.47	3.176	160	1.805	4529
82	37.9	3.269	160	1.852	4580
82	38.29	3.454	160	1.945	4108
83	1.12	3.176	162	1.805	4176
83	2.34	3.176	162	1.805	4503
83	3.6	3.083	162	1.758	4517
83	4.83	3.129	162	1.781	4342
83	6.1	3.036	162	1.734	4543
83	7.25	3.036	162	1.734	4440
83	8.53	3.176	162	1.805	4381

83	9.74	3.036	162	1.734	4572
83	11.03	3.083	162	1.758	4657
83	12.23	3.176	162	1.805	4475
83	13.51	3.129	162	1.781	4771
83	14.74	3.083	162	1.758	4815
83	15.98	3.176	162	1.805	4926
83	17.25	3.129	162	1.781	4527
83	18.47	3.036	162	1.734	5192
83	19.76	3.036	162	1.734	4396
83	20.98	2.942	162	1.688	3922
83	22.19	2.942	162	1.688	4618
83	23.5	2.942	162	1.688	4702
83	23.83	2.8	162	1.617	5278
83	24.24	2.753	162	1.594	5039
83	24.68	2.895	162	1.664	5119
83	25.1	2.8	162	1.617	5270
83	25.54	2.706	162	1.57	5936
83	25.99	2.848	162	1.641	4894
83	26.37	2.753	162	1.594	5802
83	26.84	2.706	162	1.57	5138
83	27.21	2.895	162	1.664	5205
83	27.63	2.753	162	1.594	4875
83	28.01	2.8	162	1.617	5197
83	28.45	2.895	162	1.664	4953
83	28.86	2.8	162	1.617	4379
83	29.29	2.848	162	1.641	4480
83	29.71	2.895	162	1.664	4766
83	30.09	2.8	162	1.617	3707
83	30.52	2.8	162	1.617	2430
83	30.91	2.848	162	1.641	4856
83	31.31	2.753	162	1.594	4765
83	31.78	2.8	162	1.617	5214
83	32.18	2.942	162	1.688	4197
83	32.57	2.848	162	1.641	5077
83	32.98	2.8	162	1.617	4441
83	33.41	2.8	162	1.617	4626
83	33.83	2.753	162	1.594	5172
83	34.22	2.848	162	1.641	5347
83	34.66	2.8	162	1.617	5504
83	35	2.8	162	1.617	5283
83	35.46	2.8	162	1.617	4822
83	35.9	2.848	162	1.641	5068
83	36.27	2.8	162	1.617	4894
83	36.68	2.8	162	1.617	4716
83	37.12	2.942	162	1.688	4131
83	37.54	3.036	162	1.734	4184
83	37.93	3.176	162	1.805	4383

83	38.38	3.315	162	1.875	5018
84	1.09	3.315	164	1.875	3967
84	2.32	3.222	164	1.828	4458
84	3.53	3.269	164	1.852	4568
84	4.78	3.269	164	1.852	5301
84	6.04	3.269	164	1.852	4912
84	7.28	3.176	164	1.805	4570
84	8.51	3.083	164	1.758	4826
84	9.73	3.083	164	1.758	4865
84	11	3.129	164	1.781	4947
84	12.21	3.129	164	1.781	4039
84	13.42	3.222	164	1.828	3967
84	14.73	3.083	164	1.758	4126
84	15.93	2.989	164	1.711	4604
84	17.23	2.895	164	1.664	5009
84	18.45	2.942	164	1.688	4890
84	19.67	3.315	164	1.875	3557
84	20.96	3.129	164	1.781	3593
84	22.18	3.036	164	1.734	4009
84	23.44	3.036	164	1.734	4349
84	24.69	3.036	164	1.734	4509
84	25.89	3.129	164	1.781	4053
84	27.18	3.129	164	1.781	4383
84	28.37	3.083	164	1.758	4134
84	29.66	3.036	164	1.734	4710
84	30.86	3.083	164	1.758	4759
84	32.12	3.176	164	1.805	4842
84	33.35	3.176	164	1.805	4687
84	34.59	3.222	164	1.828	4841
84	35.82	3.362	164	1.898	4378
84	37.1	3.408	164	1.922	4375
84	38.3	3.5	164	1.969	4772
85	1.26	3.362	166	1.898	4269
85	2.47	3.408	166	1.922	4152
85	3.75	3.408	166	1.922	4664
85	4.91	3.408	166	1.922	4358
85	6.15	3.5	166	1.969	4474
85	7.42	3.362	166	1.898	4515
85	8.65	3.362	166	1.898	4381
85	9.83	3.315	166	1.875	4088
85	11.11	3.222	166	1.828	4660
85	12.34	3.222	166	1.828	5367
85	13.64	3.315	166	1.875	5135
85	14.86	3.222	166	1.828	5692
85	16.12	3.129	166	1.781	5215
85	17.38	2.989	166	1.711	5339
85	18.58	3.036	166	1.734	4715

85	19.87	3.083	166	1.758	4365
85	21.09	2.942	166	1.688	5592
85	22.32	2.848	166	1.641	5754
85	23.58	2.895	166	1.664	4986
85	24.83	2.942	166	1.688	4796
85	26.05	2.942	166	1.688	4596
85	27.31	2.942	166	1.688	5686
85	28.51	2.989	166	1.711	5633
85	29.77	3.036	166	1.734	4878
85	31.01	3.129	166	1.781	5058
85	32.25	3.269	166	1.852	4903
85	33.5	3.362	166	1.898	5364
85	34.8	3.408	166	1.922	4344
85	36.01	3.362	166	1.898	5105
85	37.22	3.454	166	1.945	5035
85	38.46	3.5	166	1.969	5085
86	1.08	3.638	168	2.039	4055
86	2.29	3.592	168	2.016	4396
86	3.48	3.592	168	2.016	4407
86	4.72	3.638	168	2.039	4144
86	6.01	3.684	168	2.063	4530
86	7.31	3.546	168	1.992	5086
86	8.53	3.454	168	1.945	5043
86	9.77	3.408	168	1.922	5266
86	11.03	3.315	168	1.875	4971
86	12.25	3.362	168	1.898	5428
86	13.47	3.362	168	1.898	5005
86	14.74	3.362	168	1.898	5401
86	16	3.269	168	1.852	4916
86	17.23	3.222	168	1.828	4861
86	18.47	3.083	168	1.758	4935
86	19.67	3.129	168	1.781	4622
86	20.96	2.989	168	1.711	4818
86	22.16	2.942	168	1.688	5083
86	23.45	2.989	168	1.711	5258
86	24.66	2.989	168	1.711	4862
86	25.89	2.989	168	1.711	5120
86	27.14	2.989	168	1.711	5149
86	28.35	3.036	168	1.734	5090
86	29.61	3.129	168	1.781	4738
86	30.81	3.269	168	1.852	5140
86	32.05	3.408	168	1.922	5618
86	33.37	3.454	168	1.945	5499
86	34.53	3.546	168	1.992	5581
86	35.76	3.638	168	2.039	3723
86	37	3.546	168	1.992	5162
86	38.23	3.638	168	2.039	4702

87	1.24	3.454	170	1.945	4111
87	2.48	3.592	170	2.016	3644
87	3.84	3.592	170	2.016	4464
87	4.99	3.592	170	2.016	4535
87	6.14	3.73	170	2.086	5096
87	7.52	3.546	170	1.992	5047
87	8.73	3.454	170	1.945	4991
87	9.99	3.454	170	1.945	4678
87	11.22	3.362	170	1.898	5284
87	12.45	3.408	170	1.922	5330
87	13.68	3.408	170	1.922	5334
87	14.9	3.408	170	1.922	5715
87	16.13	3.362	170	1.898	5084
87	17.43	3.269	170	1.852	4490
87	18.61	3.176	170	1.805	4467
87	19.88	3.222	170	1.828	4445
87	21.12	3.036	170	1.734	4758
87	22.33	3.083	170	1.758	4611
87	23.56	3.083	170	1.758	4669
87	24.84	3.036	170	1.734	4846
87	26.07	3.036	170	1.734	4662
87	27.33	3.083	170	1.758	4574
87	28.51	3.083	170	1.758	4917
87	29.78	3.222	170	1.828	4958
87	31	3.362	170	1.898	5202
87	32.25	3.454	170	1.945	5314
87	33.56	3.546	170	1.992	5361
87	34.87	3.592	170	2.016	5064
87	36.08	3.638	170	2.039	4836
87	37.26	3.684	170	2.063	4723
87	38.53	3.73	170	2.086	4921
88	1.07	3.684	172	2.063	4330
88	2.32	3.638	172	2.039	4539
88	3.48	3.684	172	2.063	4925
88	4.69	3.638	172	2.039	4514
88	6.02	3.73	172	2.086	4592
88	7.3	3.638	172	2.039	4476
88	8.56	3.5	172	1.969	5238
88	9.81	3.454	172	1.945	4730
88	11.05	3.5	172	1.969	4827
88	12.26	3.546	172	1.992	4677
88	13.5	3.592	172	2.016	4118
88	14.73	3.5	172	1.969	4530
88	16.02	3.454	172	1.945	5068
88	17.23	3.454	172	1.945	4840
88	18.46	3.408	172	1.922	4899
88	19.67	3.776	172	2.109	3719

88	20.98	3.684	172	2.063	3822
88	22.17	3.592	172	2.016	4196
88	23.49	3.592	172	2.016	4293
88	24.73	3.592	172	2.016	3995
88	25.94	3.592	172	2.016	3461
88	27.17	3.546	172	1.992	4370
88	28.39	3.546	172	1.992	3974
88	29.66	3.362	172	1.898	4142
88	30.89	3.362	172	1.898	5053
88	32.12	3.5	172	1.969	4323
88	33.47	3.592	172	2.016	5043
88	34.69	3.638	172	2.039	4600
88	35.82	3.684	172	2.063	5148
88	37.08	3.592	172	2.016	4966
88	38.32	3.822	172	2.133	4553
89	1.28	3.454	174	1.945	4171
89	2.51	3.5	174	1.969	4502
89	3.77	3.546	174	1.992	4498
89	4.91	3.684	174	2.063	4233
89	6.14	3.684	174	2.063	4570
89	7.44	3.592	174	2.016	4074
89	8.71	3.5	174	1.969	4414
89	9.92	3.454	174	1.945	4500
89	11.19	3.315	174	1.875	4917
89	12.43	3.315	174	1.875	5247
89	13.63	3.315	174	1.875	5076
89	14.86	3.315	174	1.875	5369
89	16.12	3.315	174	1.875	4915
89	17.43	3.222	174	1.828	4640
89	18.59	3.222	174	1.828	5136
89	19.92	3.362	174	1.898	5538
89	21.16	3.176	174	1.805	6600
89	22.37	3.222	174	1.828	6812
89	23.56	3.269	174	1.852	6753
89	24.85	3.269	174	1.852	7090
89	26.08	3.222	174	1.828	6577
89	27.33	3.176	174	1.805	6799
89	28.5	3.083	174	1.758	6559
89	29.75	3.083	174	1.758	6820
89	30.99	3.176	174	1.805	6063
89	32.27	3.222	174	1.828	6804
89	33.53	3.269	174	1.852	6479
89	34.9	3.315	174	1.875	6920
89	36.07	3.408	174	1.922	6658
89	37.26	3.408	174	1.922	6532
89	38.5	3.5	174	1.969	6260
90	1.1	3.408	176	1.922	5885

90	2.32	3.454	176	1.945	6571
90	3.49	3.592	176	2.016	6271
90	4.65	3.592	176	2.016	6353
90	6.04	3.5	176	1.969	7731
90	7.26	3.362	176	1.898	7448
90	8.53	3.222	176	1.828	6751
90	9.75	3.176	176	1.805	6041
90	10.99	3.129	176	1.781	6776
90	12.21	3.176	176	1.805	7529
90	13.43	3.222	176	1.828	6837
90	14.68	3.129	176	1.781	6924
90	15.98	3.083	176	1.758	6720
90	17.2	3.083	176	1.758	7241
90	18.38	3.222	176	1.828	7790
90	19.63	3.362	176	1.898	6577
90	20.95	3.362	176	1.898	7051
90	22.15	3.362	176	1.898	6344
90	23.46	3.454	176	1.945	5041
90	24.74	3.454	176	1.945	5963
90	25.99	3.408	176	1.922	5333
90	27.19	3.315	176	1.875	5130
90	28.43	3.222	176	1.828	4386
90	29.68	3.176	176	1.805	4955
90	30.92	3.269	176	1.852	4978
90	32.17	3.269	176	1.852	5230
90	33.45	3.362	176	1.898	5393
90	34.7	3.362	176	1.898	5065
90	35.85	3.315	176	1.875	4741
90	37.11	3.362	176	1.898	5065
90	38.36	3.362	176	1.898	4450
91	0.01	3.5	178	1.969	3984
91	1.22	3.638	178	2.039	5108
91	2.47	3.684	178	2.063	5079
91	3.75	3.638	178	2.039	5606
91	4.92	3.592	178	2.016	4796
91	4.94	3.454	178	1.945	5222
91	6.18	3.269	178	1.852	5316
91	7.44	3.176	178	1.805	4989
91	8.66	3.269	178	1.852	5080
91	9.92	3.315	178	1.875	5054
91	11.17	3.222	178	1.828	5224
91	12.42	3.222	178	1.828	5234
91	13.62	3.129	178	1.781	4657
91	14.88	3.176	178	1.805	5451
91	16.15	3.269	178	1.852	5549
91	17.42	3.454	178	1.945	5192
91	18.59	3.408	178	1.922	5245

91	19.86	3.408	178	1.922	5570
91	21.13	3.408	178	1.922	4817
91	22.3	3.315	178	1.875	4816
91	23.52	3.315	178	1.875	4926
91	24.84	3.176	178	1.805	5274
91	26.05	3.176	178	1.805	5324
91	27.25	3.222	178	1.828	4229
91	28.47	3.362	178	1.898	5720
91	29.69	3.362	178	1.898	5161
91	30.96	3.408	178	1.922	5203
91	32.21	3.5	178	1.969	4713
91	33.47	3.5	178	1.969	4916
91	34.88	3.454	178	1.945	4428
91	36.07	3.5	178	1.969	5123
91	37.28	3.5	178	1.969	4867
91	38.43	3.822	178	2.133	4775
92	1.06	3.592	180	2.016	3405
92	2.27	3.592	180	2.016	4531
92	3.5	3.73	180	2.086	4250
92	4.61	3.73	180	2.086	4255
92	6	3.73	180	2.086	4082
92	7.29	3.592	180	2.016	5274
92	8.5	3.454	180	1.945	4990
92	9.74	3.408	180	1.922	5006
92	10.97	3.454	180	1.945	3651
92	12.21	3.592	180	2.016	3984
92	13.44	3.5	180	1.969	4220
92	14.66	3.5	180	1.969	4604
92	15.96	3.408	180	1.922	4017
92	17.14	3.408	180	1.922	4154
92	18.35	3.362	180	1.898	4573
92	19.63	3.638	180	2.039	4320
92	20.88	3.5	180	1.969	3898
92	22.08	3.5	180	1.969	4101
92	23.35	3.592	180	2.016	3923
92	24.62	3.684	180	2.063	3704
92	25.86	3.638	180	2.039	3571
92	27.08	3.638	180	2.039	4125
92	28.35	3.638	180	2.039	4230
92	29.57	3.546	180	1.992	4450
92	30.85	3.362	180	1.898	4892
92	32.08	3.5	180	1.969	5137
92	33.33	3.546	180	1.992	5004
92	34.53	3.546	180	1.992	5083
92	35.78	3.546	180	1.992	4044
92	37	3.408	180	1.922	4454
92	38.3	3.5	180	1.969	3948

93	1.18	3.592	182	2.016	3986
93	1.19	3.684	182	2.063	4378
93	2.47	3.913	182	2.18	4952
93	3.71	3.867	182	2.156	4573
93	4.97	3.867	182	2.156	5178
93	4.98	3.73	182	2.086	4905
93	6.12	3.638	182	2.039	5121
93	7.41	3.454	182	1.945	4613
93	8.66	3.408	182	1.922	5265
93	9.93	3.408	182	1.922	4965
93	11.16	3.315	182	1.875	5108
93	12.41	3.315	182	1.875	5137
93	13.63	3.269	182	1.852	5336
93	14.85	3.269	182	1.852	5054
93	16.11	3.269	182	1.852	5093
93	17.39	3.269	182	1.852	5015
93	18.61	3.315	182	1.875	4182
93	19.83	3.269	182	1.852	4714
93	21.13	3.269	182	1.852	4785
93	22.38	3.269	182	1.852	4850
93	23.55	3.269	182	1.852	4849
93	24.79	3.269	182	1.852	5000
93	26.04	3.269	182	1.852	5154
93	27.27	3.176	182	1.805	4996
93	28.5	3.176	182	1.805	4319
93	28.51	3.315	182	1.875	5172
93	29.75	3.362	182	1.898	4526
93	31	3.5	182	1.969	4930
93	32.21	3.454	182	1.945	4775
93	33.5	3.454	182	1.945	5139
93	34.87	3.454	182	1.945	4365
93	36	3.454	182	1.945	4283
93	37.22	3.454	182	1.945	4396
93	38.47	3.454	182	1.945	4130
94	1.09	3.592	184	2.016	3887
94	2.33	3.638	184	2.039	4672
94	2.34	3.638	184	2.039	4747
94	3.6	3.73	184	2.086	4610
94	4.67	3.867	184	2.156	4787
94	6.08	3.638	184	2.039	5598
94	7.34	3.592	184	2.016	5029
94	8.56	3.408	184	1.922	5221
94	9.76	3.362	184	1.898	5301
94	11.02	3.315	184	1.875	5226
94	12.24	3.315	184	1.875	4618
94	13.49	3.269	184	1.852	4993
94	14.73	3.269	184	1.852	5139

94	15.97	3.315	184	1.875	5287
94	17.13	3.176	184	1.805	5087
94	18.39	3.269	184	1.852	5051
94	19.73	3.362	184	1.898	4373
94	20.94	3.269	184	1.852	4597
94	22.15	3.315	184	1.875	4752
94	23.45	3.315	184	1.875	4162
94	24.7	3.315	184	1.875	5043
94	25.95	3.315	184	1.875	4986
94	27.18	3.222	184	1.828	4857
94	28.39	3.176	184	1.805	4808
94	29.66	3.176	184	1.805	5352
94	30.92	3.315	184	1.875	5254
94	32.16	3.315	184	1.875	4657
94	33.41	3.408	184	1.922	5104
94	34.63	3.546	184	1.992	4364
94	35.87	3.408	184	1.922	4882
94	37.12	3.362	184	1.898	4344
94	38.4	3.546	184	1.992	5008
95	0.01	3.592	186	2.016	4227
95	1.21	3.73	186	2.086	4867
95	2.47	3.822	186	2.133	4991
95	3.74	3.822	186	2.133	4719
95	5.01	3.776	186	2.109	5058
95	6.21	3.684	186	2.063	5375
95	7.49	3.408	186	1.922	4797
95	8.71	3.222	186	1.828	4974
95	9.93	3.269	186	1.852	5132
95	11.23	3.222	186	1.828	5070
95	12.42	3.222	186	1.828	5096
95	13.64	3.222	186	1.828	5242
95	14.88	3.176	186	1.805	4715
95	16.14	3.222	186	1.828	5053
95	17.44	3.222	186	1.828	5031
95	18.65	3.362	186	1.898	4474
95	19.86	3.315	186	1.875	5306
95	21.16	3.362	186	1.898	4763
95	22.45	3.454	186	1.945	4908
95	23.59	3.362	186	1.898	4730
95	24.85	3.362	186	1.898	4999
95	26.07	3.315	186	1.875	5087
95	27.35	3.315	186	1.875	4979
95	28.56	3.315	186	1.875	4892
95	29.8	3.362	186	1.898	4803
95	31.02	3.454	186	1.945	4668
95	32.26	3.5	186	1.969	4872
95	33.53	3.592	186	2.016	4594

95	34.9	3.5	186	1.969	4432
95	35.97	3.546	186	1.992	4541
95	37.3	3.454	186	1.945	4588
95	38.56	3.5	186	1.969	3884
96	0.61	3.684	188	2.063	4622
96	1.84	3.776	188	2.109	4921
96	3.12	3.776	188	2.109	4684
96	4.24	3.776	188	2.109	4813
96	5.59	3.776	188	2.109	5009
96	5.6	3.776	188	2.109	4865
96	6.83	3.546	188	1.992	5525
96	8.05	3.5	188	1.969	5236
96	9.28	3.362	188	1.898	4966
96	10.53	3.408	188	1.922	4717
96	11.76	3.454	188	1.945	3911
96	13.05	3.454	188	1.945	4299
96	14.23	3.315	188	1.875	4628
96	15.5	3.315	188	1.875	4212
96	16.68	3.315	188	1.875	4759
96	17.94	3.362	188	1.898	4514
96	19.26	3.638	188	2.039	3878
96	20.49	3.684	188	2.063	3508
96	21.68	3.638	188	2.039	3732
96	23	3.776	188	2.109	4158
96	24.23	3.822	188	2.133	3596
96	25.47	3.73	188	2.086	3413
96	26.69	3.776	188	2.109	3961
96	27.91	3.592	188	2.016	4212
96	29.21	3.362	188	1.898	4522
96	30.42	3.362	188	1.898	4821
96	31.64	3.454	188	1.945	4813
96	32.91	3.454	188	1.945	4576
96	34.11	3.546	188	1.992	4275
96	35.38	3.454	188	1.945	4378
96	36.66	3.362	188	1.898	4293
96	37.87	3.362	188	1.898	4591
97	1.24	3.684	190	2.063	3583
97	2.43	3.776	190	2.109	4869
97	3.71	3.913	190	2.18	4613
97	4.95	3.959	190	2.203	3859
97	6.19	3.913	190	2.18	4275
97	7.46	3.867	190	2.156	4249
97	8.68	3.822	190	2.133	3761
97	9.86	3.638	190	2.039	4147
97	11.17	3.454	190	1.945	4718
97	12.4	3.362	190	1.898	4978
97	13.65	3.362	190	1.898	4658

97	14.88	3.362	190	1.898	4486
97	16.13	3.315	190	1.875	4708
97	17.43	3.315	190	1.875	4436
97	18.61	3.362	190	1.898	5087
97	19.86	3.454	190	1.945	4868
97	21.16	3.269	190	1.852	4960
97	22.38	3.269	190	1.852	4545
97	23.56	3.315	190	1.875	4701
97	24.84	3.408	190	1.922	4733
97	25.99	3.362	190	1.898	5585
97	27.31	3.315	190	1.875	4717
97	28.5	3.269	190	1.852	4859
97	29.78	3.222	190	1.828	4290
97	30.99	3.269	190	1.852	4792
97	32.27	3.315	190	1.875	4235
97	33.5	3.408	190	1.922	4704
97	34.81	3.592	190	2.016	4214
97	35.95	3.315	190	1.875	4983
97	37.26	3.362	190	1.898	4708
97	38.49	3.454	190	1.945	4761
98	1.14	3.638	192	2.039	4509
98	2.4	3.73	192	2.086	4928
98	3.63	3.913	192	2.18	5013
98	4.81	3.776	192	2.109	4804
98	4.82	3.776	192	2.109	4952
98	6.09	3.776	192	2.109	5312
98	7.38	3.638	192	2.039	4692
98	8.59	3.454	192	1.945	5391
98	9.8	3.362	192	1.898	4805
98	11.05	3.408	192	1.922	5365
98	11.89	3.73	192	2.086	1578
98	12.27	3.408	192	1.922	4612
98	13.55	3.408	192	1.922	5908
98	14.74	3.454	192	1.945	4674
98	16.02	3.408	192	1.922	5115
98	17.27	3.362	192	1.898	4350
98	18.46	3.408	192	1.922	5364
98	19.75	3.454	192	1.945	4783
98	21.03	3.315	192	1.875	5138
98	22.2	3.315	192	1.875	4986
98	23.49	3.315	192	1.875	5165
98	24.74	3.315	192	1.875	5067
98	25.99	3.408	192	1.922	5370
98	27.21	3.362	192	1.898	5194
98	28.44	3.315	192	1.875	4642
98	29.75	3.362	192	1.898	4099
98	30.94	3.408	192	1.922	4697

98	32.15	3.408	192	1.922	5046
98	33.43	3.5	192	1.969	4889
98	34.66	3.592	192	2.016	4405
98	35.9	3.592	192	2.016	4579
98	37.2	3.546	192	1.992	4501
98	38.39	3.546	192	1.992	4164
99	1.22	3.638	194	2.039	4132
99	2.38	3.684	194	2.063	4659
99	3.68	3.822	194	2.133	4620
99	4.93	3.776	194	2.109	5835
99	6.12	3.822	194	2.133	5344
99	7.44	3.546	194	1.992	4966
99	8.68	3.408	194	1.922	4987
99	9.85	3.315	194	1.875	5178
99	11.12	3.269	194	1.852	4849
99	12.36	3.362	194	1.898	5126
99	13.58	3.315	194	1.875	4782
99	14.84	3.315	194	1.875	5467
99	16.07	3.454	194	1.945	4961
99	17.33	3.362	194	1.898	5081
99	18.53	3.362	194	1.898	4976
99	19.86	3.454	194	1.945	4924
99	21.08	3.269	194	1.852	4955
99	22.25	3.315	194	1.875	4702
99	23.55	3.269	194	1.852	4324
99	24.82	3.362	194	1.898	4954
99	26.03	3.408	194	1.922	5200
99	27.3	3.408	194	1.922	5633
99	28.5	3.408	194	1.922	5000
99	29.74	3.408	194	1.922	5161
99	30.95	3.5	194	1.969	5171
99	32.18	3.592	194	2.016	5165
99	33.47	3.638	194	2.039	5099
99	34.68	3.546	194	1.992	4556
99	35.91	3.546	194	1.992	4834
99	37.17	3.5	194	1.969	4550
99	38.41	3.454	194	1.945	5070
100	1.08	3.684	196	2.063	4610
100	2.32	3.822	196	2.133	4323
100	3.55	3.867	196	2.156	4312
100	4.78	3.913	196	2.18	5119
100	6.01	3.822	196	2.133	4915
100	7.29	3.684	196	2.063	5300
100	8.49	3.546	196	1.992	5432
100	9.75	3.408	196	1.922	4730
100	10.96	3.454	196	1.945	4851
100	12.2	3.5	196	1.969	4717

100	13.48	3.546	196	1.992	4357
100	14.71	3.592	196	2.016	4763
100	15.94	3.546	196	1.992	4795
100	17.28	3.454	196	1.945	4625
100	18.39	3.454	196	1.945	4501
100	19.65	3.776	196	2.109	4092
100	20.96	3.684	196	2.063	4097
100	22.13	3.684	196	2.063	3955
100	23.4	3.73	196	2.086	4374
100	24.67	3.776	196	2.109	4527
100	25.89	3.822	196	2.133	4330
100	27.13	3.822	196	2.133	4077
100	28.38	3.776	196	2.109	4725
100	29.65	3.546	196	1.992	4552
100	30.82	3.546	196	1.992	5205
100	32.06	3.638	196	2.039	5586
100	33.36	3.73	196	2.086	4461
100	34.56	3.684	196	2.063	4939
100	35.82	3.638	196	2.039	4434
100	37.13	3.5	196	1.969	4187
100	38.31	3.592	196	2.016	4887
101	1.2	3.73	198	2.086	4156
101	2.38	3.913	198	2.18	4603
101	3.68	3.913	198	2.18	4479
101	4.89	3.959	198	2.203	4855
101	6.11	4.004	198	2.227	4738
101	7.43	3.913	198	2.18	4531
101	7.44	3.867	198	2.156	4910
101	8.63	3.638	198	2.039	4276
101	9.81	3.592	198	2.016	4603
101	11.07	3.5	198	1.969	4826
101	12.34	3.5	198	1.969	4852
101	13.55	3.5	198	1.969	5465
101	14.8	3.454	198	1.945	4772
101	16.03	3.5	198	1.969	4361
101	17.27	3.5	198	1.969	5058
101	18.49	3.454	198	1.945	4760
101	19.77	3.315	198	1.875	4399
101	21.04	3.408	198	1.922	4810
101	22.16	3.362	198	1.898	4957
101	23.49	3.454	198	1.945	5317
101	24.74	3.546	198	1.992	5136
101	25.95	3.5	198	1.969	5154
101	27.24	3.5	198	1.969	4604
101	28.47	3.546	198	1.992	4841
101	29.66	3.5	198	1.969	4947
101	30.92	3.638	198	2.039	4984

101	32.14	3.638	198	2.039	5259
101	33.45	3.592	198	2.016	5069
101	34.67	3.592	198	2.016	5462
101	35.87	3.592	198	2.016	4455
101	37.12	3.592	198	2.016	3905
101	38.37	3.684	198	2.063	4717
102	1.11	3.684	200	2.063	4788
102	2.38	3.684	200	2.063	4694
102	3.64	3.73	200	2.086	5016
102	4.87	3.867	200	2.156	4632
102	6.06	3.73	200	2.086	4907
102	7.35	3.684	200	2.063	4359
102	8.56	3.592	200	2.016	5327
102	9.8	3.546	200	1.992	5120
102	11.03	3.5	200	1.969	5446
102	12.23	3.454	200	1.945	4880
102	13.54	3.454	200	1.945	5090
102	14.75	3.454	200	1.945	5527
102	16.03	3.408	200	1.922	5291
102	17.36	3.362	200	1.898	4891
102	18.47	3.362	200	1.898	5238
102	19.73	3.454	200	1.945	4466
102	20.99	3.315	200	1.875	4677
102	22.25	3.362	200	1.898	4546
102	23.49	3.454	200	1.945	5268
102	24.73	3.454	200	1.945	4742
102	25.98	3.454	200	1.945	5184
102	27.2	3.454	200	1.945	5276
102	28.46	3.454	200	1.945	4938
102	29.74	3.408	200	1.922	4845
102	30.92	3.5	200	1.969	4583
102	32.15	3.5	200	1.969	5029
102	33.45	3.592	200	2.016	4691
102	34.68	3.454	200	1.945	4767
102	35.95	3.454	200	1.945	4125
102	37.2	3.408	200	1.922	4362
102	38.4	3.684	200	2.063	4721
103	1.17	3.684	202	2.063	3961
103	2.35	3.73	202	2.086	4903
103	3.6	3.822	202	2.133	4752
103	4.9	3.867	202	2.156	4935
103	6.11	3.776	202	2.109	5065
103	7.4	3.638	202	2.039	5241
103	8.62	3.546	202	1.992	5530
103	9.81	3.454	202	1.945	5245
103	11.1	3.408	202	1.922	5085
103	12.34	3.408	202	1.922	5239

103	13.57	3.546	202	1.992	5173
103	14.82	3.5	202	1.969	4982
103	16.04	3.454	202	1.945	4993
103	17.3	3.362	202	1.898	4639
103	18.55	3.5	202	1.969	5075
103	19.79	3.5	202	1.969	4627
103	21.05	3.454	202	1.945	5140
103	22.17	3.408	202	1.922	5011
103	23.48	3.454	202	1.945	5008
103	24.74	3.454	202	1.945	5138
103	25.95	3.546	202	1.992	5096
103	27.26	3.5	202	1.969	5205
103	28.45	3.5	202	1.969	4728
103	29.67	3.454	202	1.945	5178
103	30.91	3.546	202	1.992	4803
103	32.14	3.592	202	2.016	5199
103	33.42	3.546	202	1.992	4940
103	34.66	3.546	202	1.992	4603
103	35.89	3.546	202	1.992	4423
103	37.17	3.592	202	2.016	4275
103	38.44	3.592	202	2.016	4124
104	1.16	3.776	204	2.109	4032
104	2.42	3.822	204	2.133	4404
104	3.67	3.822	204	2.133	4493
104	4.85	3.822	204	2.133	5120
104	6.14	3.73	204	2.086	4694
104	7.44	3.638	204	2.039	5100
104	8.66	3.546	204	1.992	5424
104	9.86	3.5	204	1.969	5078
104	11.13	3.592	204	2.016	4461
104	12.29	3.638	204	2.039	4295
104	13.58	3.546	204	1.992	4464
104	14.8	3.546	204	1.992	4664
104	16.08	3.592	204	2.016	4595
104	17.37	3.546	204	1.992	4619
104	18.49	3.592	204	2.016	5382
104	19.81	3.776	204	2.109	4035
104	21.01	3.867	204	2.156	3951
104	22.27	3.73	204	2.086	4221
104	23.52	3.822	204	2.133	3797
104	24.75	3.822	204	2.133	3897
104	26	3.867	204	2.156	3781
104	27.21	3.776	204	2.109	3763
104	28.48	3.776	204	2.109	4063
104	29.79	3.592	204	2.016	4290
104	30.98	3.5	204	1.969	4504
104	32.19	3.546	204	1.992	4642

104	33.51	3.546	204	1.992	4546
104	34.71	3.592	204	2.016	4329
104	35.97	3.638	204	2.039	4470
104	37.22	3.592	204	2.016	4327
104	38.44	3.73	204	2.086	4281
105	1.17	3.684	206	2.063	3781
105	2.39	3.638	206	2.039	4271
105	3.67	3.867	206	2.156	4646
105	4.95	3.867	206	2.156	4664
105	6.15	3.822	206	2.133	4603
105	7.43	3.822	206	2.133	4558
105	8.68	3.684	206	2.063	4276
105	9.9	3.592	206	2.016	4644
105	11.2	3.546	206	1.992	4844
105	12.42	3.408	206	1.922	4942
105	13.64	3.454	206	1.945	4647
105	14.9	3.454	206	1.945	4766
105	16.12	3.454	206	1.945	4824
105	17.37	3.454	206	1.945	4891
105	18.62	3.454	206	1.945	4680
105	19.82	3.408	206	1.922	4927
105	21.12	3.546	206	1.992	4893
105	22.25	3.454	206	1.945	5164
105	23.55	3.408	206	1.922	4588
105	24.83	3.408	206	1.922	4652
105	26.04	3.408	206	1.922	5068
105	27.3	3.408	206	1.922	5049
105	28.46	3.362	206	1.898	4492
105	29.74	3.315	206	1.875	4817
105	30.89	3.408	206	1.922	4279
105	32.19	3.5	206	1.969	4863
105	33.45	3.5	206	1.969	5244
105	34.72	3.546	206	1.992	4638
105	35.96	3.546	206	1.992	4274
105	35.97	3.684	206	2.063	4282
105	37.2	3.592	206	2.016	4624
105	38.4	3.638	206	2.039	4793
106	1.12	3.638	208	2.039	4274
106	2.39	3.638	208	2.039	4065
106	3.58	3.776	208	2.109	4756
106	4.78	3.822	208	2.133	5096
106	6.06	3.776	208	2.109	5032
106	7.38	3.638	208	2.039	4841
106	8.64	3.5	208	1.969	5275
106	9.8	3.362	208	1.898	5052
106	11.07	3.362	208	1.898	5012
106	12.23	3.362	208	1.898	4900

106	13.47	3.408	208	1.922	4494
106	14.72	3.592	208	2.016	5427
106	16.01	3.5	208	1.969	4539
106	17.27	3.5	208	1.969	4795
106	18.44	3.5	208	1.969	5170
106	19.76	3.5	208	1.969	4966
106	20.96	3.408	208	1.922	4808
106	22.18	3.362	208	1.898	4674
106	23.47	3.408	208	1.922	4465
106	24.7	3.454	208	1.945	4669
106	25.98	3.315	208	1.875	5076
106	27.17	3.362	208	1.898	5071
106	28.44	3.362	208	1.898	4993
106	29.71	3.5	208	1.969	4759
106	30.95	3.454	208	1.945	4791
106	32.19	3.592	208	2.016	5592
106	33.45	3.592	208	2.016	7031
106	34.69	3.684	208	2.063	7741
106	35.95	3.684	208	2.063	5697
106	37.19	3.592	208	2.016	6614
106	38.4	3.592	208	2.016	5974
107	1.2	3.822	210	2.133	3918
107	2.4	3.73	210	2.086	4566
107	3.64	3.73	210	2.086	4595
107	4.95	3.776	210	2.109	4969
107	6.12	3.913	210	2.18	5190
107	7.4	3.913	210	2.18	5373
107	8.69	3.592	210	2.016	5068
107	9.91	3.454	210	1.945	4710
107	11.2	3.362	210	1.898	5601
107	12.45	3.269	210	1.852	5960
107	13.62	3.315	210	1.875	6454
107	14.9	3.408	210	1.922	6821
107	16.13	3.5	210	1.969	6674
107	17.42	3.5	210	1.969	6966
107	18.64	3.546	210	1.992	6370
107	19.85	3.5	210	1.969	8071
107	21.12	3.5	210	1.969	7046
107	22.32	3.408	210	1.922	6392
107	23.55	3.362	210	1.898	6902
107	24.84	3.454	210	1.945	6954
107	26.05	3.362	210	1.898	6524
107	27.29	3.362	210	1.898	6986
107	28.47	3.315	210	1.875	7304
107	29.76	3.315	210	1.875	6952
107	30.9	3.362	210	1.898	6610
107	32.2	3.546	210	1.992	7018

107	33.51	3.638	210	2.039	7155
107	34.81	3.638	210	2.039	6444
107	36	3.73	210	2.086	5919
107	37.21	3.776	210	2.109	5288
107	37.22	3.546	210	1.992	4560
107	38.44	3.638	210	2.039	5178
108	1.17	3.638	212	2.039	5403
108	2.39	3.638	212	2.039	6050
108	3.6	3.822	212	2.133	5446
108	4.79	3.822	212	2.133	7099
108	6.06	3.73	212	2.086	5857
108	7.32	3.638	212	2.039	5327
108	8.62	3.592	212	2.016	5421
108	9.79	3.592	212	2.016	5150
108	11.02	3.684	212	2.063	4519
108	12.24	3.638	212	2.039	4111
108	13.47	3.638	212	2.039	4287
108	14.72	3.73	212	2.086	5031
108	15.98	3.684	212	2.063	4399
108	17.23	3.684	212	2.063	4663
108	18.43	3.684	212	2.063	4687
108	19.72	3.913	212	2.18	4070
108	20.96	3.776	212	2.109	3930
108	22.16	3.638	212	2.039	3697
108	23.46	3.73	212	2.086	3697
108	24.69	3.822	212	2.133	3410
108	25.97	3.73	212	2.086	3458
108	27.17	3.684	212	2.063	4013
108	28.41	3.684	212	2.063	3736
108	29.67	3.5	212	1.969	5235
108	30.9	3.546	212	1.992	5213
108	32.14	3.638	212	2.039	4849
108	33.38	3.73	212	2.086	4906
108	34.59	3.684	212	2.063	4983
108	35.88	3.73	212	2.086	4294
108	37.1	3.592	212	2.016	4481
108	38.34	3.454	212	1.945	4348
109	1.18	3.638	214	2.039	4267
109	2.4	3.776	214	2.109	4269
109	3.68	3.913	214	2.18	4242
109	4.95	4.05	214	2.25	4190
109	4.97	4.004	214	2.227	4044
109	6.16	3.913	214	2.18	4192
109	7.42	3.867	214	2.156	4402
109	8.66	3.73	214	2.086	5483
109	9.93	3.638	214	2.039	5426
109	11.2	3.638	214	2.039	5190

109	12.44	3.638	214	2.039	4718
109	13.64	3.684	214	2.063	5077
109	14.88	3.684	214	2.063	4712
109	16.12	3.73	214	2.086	4895
109	17.43	3.684	214	2.063	5259
109	18.64	3.822	214	2.133	4907
109	19.89	3.638	214	2.039	5030
109	21.06	3.546	214	1.992	4307
109	22.26	3.638	214	2.039	4572
109	23.55	3.638	214	2.039	5464
109	24.8	3.638	214	2.039	5064
109	26.04	3.546	214	1.992	5230
109	27.3	3.546	214	1.992	4930
109	28.53	3.592	214	2.016	5009
109	29.8	3.73	214	2.086	5681
109	30.98	3.776	214	2.109	5180
109	32.27	3.867	214	2.156	4845
109	33.5	3.913	214	2.18	5205
109	34.73	3.913	214	2.18	4850
109	36.02	3.822	214	2.133	4334
109	37.19	3.73	214	2.086	4798
109	38.4	3.73	214	2.086	4907
110	1.12	3.592	216	2.016	4230
110	2.39	3.776	216	2.109	4675
110	3.55	3.867	216	2.156	4609
110	4.87	3.822	216	2.133	4755
110	6.03	3.913	216	2.18	5189
110	7.26	3.684	216	2.063	4711
110	8.55	3.592	216	2.016	5426
110	9.72	3.546	216	1.992	4418
110	11	3.546	216	1.992	5267
110	12.21	3.5	216	1.969	5474
110	13.44	3.546	216	1.992	5101
110	14.7	3.592	216	2.016	5138
110	15.92	3.546	216	1.992	4477
110	17.21	3.592	216	2.016	5234
110	18.42	3.638	216	2.039	5671
110	19.67	3.73	216	2.086	5152
110	20.97	3.638	216	2.039	5507
110	22.15	3.638	216	2.039	4696
110	23.47	3.638	216	2.039	5049
110	24.7	3.592	216	2.016	5189
110	25.95	3.592	216	2.016	5639
110	27.17	3.546	216	1.992	5252
110	28.4	3.5	216	1.969	4818
110	29.67	3.546	216	1.992	5063
110	30.88	3.684	216	2.063	5074

110	32.14	3.776	216	2.109	5115
110	33.38	3.913	216	2.18	4638
110	34.59	3.959	216	2.203	4710
110	35.87	3.822	216	2.133	4542
110	37.11	3.684	216	2.063	4673
110	38.31	3.73	216	2.086	4386
111	1.2	3.638	218	2.039	3809
111	2.43	3.822	218	2.133	3795
111	3.67	3.776	218	2.109	4734
111	4.94	3.867	218	2.156	4784
111	6.18	3.822	218	2.133	5151
111	6.19	3.684	218	2.063	5172
111	7.42	3.592	218	2.016	5389
111	8.69	3.5	218	1.969	4813
111	8.7	3.5	218	1.969	5203
111	9.89	3.546	218	1.992	5089
111	11.14	3.5	218	1.969	5128
111	12.39	3.638	218	2.039	5091
111	13.65	3.592	218	2.016	5189
111	14.86	3.546	218	1.992	4913
111	16.1	3.592	218	2.016	5746
111	17.42	3.822	218	2.133	4760
111	18.54	3.73	218	2.086	4731
111	19.82	3.73	218	2.086	5183
111	21.12	3.73	218	2.086	5274
111	22.3	3.73	218	2.086	4795
111	23.58	3.867	218	2.156	5260
111	24.77	3.638	218	2.039	5030
111	26.01	3.638	218	2.039	4721
111	27.27	3.73	218	2.086	4713
111	28.48	3.959	218	2.203	5639
111	29.76	3.959	218	2.203	5415
111	30.95	3.913	218	2.18	4519
111	32.2	3.959	218	2.203	5035
111	33.46	3.959	218	2.203	4736
111	34.67	3.959	218	2.203	5600
111	35.99	3.867	218	2.156	4562
111	37.16	3.73	218	2.086	4803
111	38.46	3.638	218	2.039	4655
112	1.07	3.684	220	2.063	4043
112	2.33	3.776	220	2.109	4691
112	3.48	3.913	220	2.18	4646
112	4.84	3.913	220	2.18	4989
112	6	3.913	220	2.18	5570
112	7.23	3.776	220	2.109	4646
112	8.49	3.638	220	2.039	4694
112	9.66	3.592	220	2.016	5382

112	10.95	3.73	220	2.086	4799
112	12.19	3.822	220	2.133	4414
112	13.44	3.73	220	2.086	4232
112	14.66	3.73	220	2.086	4199
112	15.87	3.73	220	2.086	4614
112	17.14	3.5	220	1.969	4131
112	18.36	3.776	220	2.109	4634
112	20.93	4.004	220	2.227	4187
112	22.06	4.095	220	2.273	3688
112	23.39	4.095	220	2.273	3738
112	24.65	4.095	220	2.273	3778
112	25.85	4.186	220	2.32	3970
112	27.09	4.095	220	2.273	4111
112	28.35	4.05	220	2.25	4299
112	29.6	3.822	220	2.133	4290
112	30.79	3.959	220	2.203	5377
112	32.1	4.004	220	2.227	5512
112	33.3	4.095	220	2.273	5065
112	34.56	3.913	220	2.18	4489
112	35.78	3.959	220	2.203	5064
112	37.01	3.684	220	2.063	4642
112	38.24	3.638	220	2.039	4854
113	1.12	3.73	222	2.086	4025
113	2.38	3.73	222	2.086	4367
113	3.6	3.913	222	2.18	4266
113	4.87	4.004	222	2.227	4321
113	6.1	3.959	222	2.203	3803
113	7.36	3.913	222	2.18	4561
113	8.61	3.822	222	2.133	4189
113	9.84	3.684	222	2.063	4846
113	11.1	3.592	222	2.016	5068
113	12.35	3.592	222	2.016	5696
113	13.62	3.592	222	2.016	5546
113	14.83	3.684	222	2.063	5393
113	16.06	3.684	222	2.063	5714
113	17.39	3.546	222	1.992	4702
113	18.57	3.73	222	2.086	5665
113	19.83	3.822	222	2.133	4909
113	21.12	3.684	222	2.063	5244
113	22.34	3.684	222	2.063	5425
113	23.6	3.73	222	2.086	5349
113	24.79	3.592	222	2.016	4493
113	26.01	3.638	222	2.039	5409
113	27.29	3.638	222	2.039	4681
113	28.49	3.592	222	2.016	4611
113	29.78	3.73	222	2.086	4523
113	30.99	3.776	222	2.109	5416

113	32.25	3.867	222	2.156	5651
113	33.51	3.959	222	2.203	4966
113	34.68	3.913	222	2.18	5586
113	36.01	3.913	222	2.18	4897
113	37.11	3.73	222	2.086	4300
113	38.4	3.638	222	2.039	4797
114	1.12	3.867	224	2.156	4233
114	2.38	3.867	224	2.156	5136
114	3.48	3.822	224	2.133	4364
114	4.8	3.776	224	2.109	5247
114	6.09	3.822	224	2.133	5519
114	7.3	3.684	224	2.063	4402
114	8.53	3.684	224	2.063	5474
114	9.75	3.5	224	1.969	5285
114	11.04	3.546	224	1.992	5254
114	12.26	3.546	224	1.992	4838
114	13.54	3.684	224	2.063	5398
114	14.73	3.684	224	2.063	4973
114	16.01	3.73	224	2.086	4928
114	17.26	3.776	224	2.109	5261
114	18.52	3.73	224	2.086	5120
114	19.81	3.822	224	2.133	4797
114	21.03	3.638	224	2.039	4998
114	22.22	3.592	224	2.016	4115
114	23.56	3.592	224	2.016	5335
114	24.77	3.592	224	2.016	4970
114	25.96	3.592	224	2.016	4789
114	27.24	3.546	224	1.992	5221
114	28.45	3.592	224	2.016	5286
114	29.69	3.684	224	2.063	5390
114	30.91	3.776	224	2.109	5118
114	32.17	3.867	224	2.156	5213
114	33.4	3.913	224	2.18	4956
114	34.65	4.004	224	2.227	5264
114	35.93	3.959	224	2.203	5043
114	37.07	3.776	224	2.109	4915
114	38.33	3.638	224	2.039	4492
115	1.19	3.928	226	2.188	6254
115	2.49	3.776	226	2.109	8610
115	3.63	3.928	226	2.188	7847
115	4.98	3.776	226	2.109	8917
115	6.21	3.776	226	2.109	8624
115	7.48	3.699	226	2.07	8542
115	8.75	3.546	226	1.992	8952
115	10.03	3.469	226	1.953	9107
115	11.29	3.469	226	1.953	10159
115	12.51	3.546	226	1.992	10069

115	13.83	3.623	226	2.031	9153
115	15.08	3.623	226	2.031	9376
115	16.32	3.699	226	2.07	8904
115	17.68	3.699	226	2.07	9080
115	18.94	3.623	226	2.031	9733
115	20.16	3.699	226	2.07	7923
115	21.51	3.546	226	1.992	8789
115	22.75	3.623	226	2.031	8973
115	24.03	3.623	226	2.031	9294
115	25.33	3.623	226	2.031	9098
115	26.54	3.546	226	1.992	9477
115	27.84	3.623	226	2.031	9431
115	29.07	3.623	226	2.031	9105
115	30.4	3.699	226	2.07	8509
115	31.64	3.852	226	2.148	9219
115	32.92	3.852	226	2.148	9102
115	34.18	3.928	226	2.188	7466
115	35.52	3.852	226	2.148	8173
115	36.85	3.776	226	2.109	8356
115	37.96	3.699	226	2.07	8168
115	39.32	3.392	226	1.914	8745
116	1.17	3.699	228	2.07	7765
116	2.47	3.699	228	2.07	7838
116	3.51	4.004	228	2.227	7664
116	4.9	4.004	228	2.227	8734
116	6.21	3.852	228	2.148	8214
116	7.49	3.776	228	2.109	7030
116	7.5	3.776	228	2.109	7219
116	8.75	3.546	228	1.992	7629
116	9.99	3.546	228	1.992	8165
116	11.31	3.546	228	1.992	8011
116	12.55	3.699	228	2.07	7233
116	13.88	3.776	228	2.109	7595
116	15.08	3.776	228	2.109	8092
116	16.4	3.699	228	2.07	7638
116	17.67	3.776	228	2.109	7665
116	18.92	3.699	228	2.07	8171
116	20.22	4.08	228	2.266	5662
116	21.49	3.928	228	2.188	5769
116	22.75	3.928	228	2.188	6365
116	24.09	4.004	228	2.227	5381
116	25.36	4.08	228	2.266	5557
116	26.56	4.08	228	2.266	6436
116	27.91	4.156	228	2.305	5896
116	29.15	4.08	228	2.266	6067
116	30.41	3.928	228	2.188	6552
116	31.68	3.852	228	2.148	8049

116	32.95	3.852	228	2.148	7080
116	34.21	3.852	228	2.148	7622
116	35.49	3.852	228	2.148	6676
116	36.83	3.776	228	2.109	7313
116	38.03	3.699	228	2.07	6212
116	39.29	3.546	228	1.992	8531
117	1.22	3.852	230	2.148	6698
117	2.48	3.928	230	2.188	7122
117	3.72	3.928	230	2.188	7667
117	5.04	4.004	230	2.227	8007
117	6.33	4.004	230	2.227	6368
117	7.6	3.928	230	2.188	6813
117	8.88	3.852	230	2.148	6643
117	10.2	3.623	230	2.031	7457
117	11.44	3.623	230	2.031	9055
117	12.69	3.623	230	2.031	8723
117	14.02	3.469	230	1.953	9448
117	15.22	3.546	230	1.992	9775
117	16.5	3.546	230	1.992	8874
117	17.85	3.623	230	2.031	7875
117	19.07	3.623	230	2.031	8823
117	20.36	3.623	230	2.031	9810
117	21.61	3.623	230	2.031	8676
117	22.88	3.546	230	1.992	8218
117	24.18	3.546	230	1.992	9242
117	25.52	3.623	230	2.031	6829
117	26.67	3.623	230	2.031	8974
117	27.99	3.623	230	2.031	8888
117	29.2	3.699	230	2.07	9885
117	29.23	3.623	230	2.031	9477
117	30.56	3.623	230	2.031	9378
117	31.77	3.776	230	2.109	8262
117	33.04	3.776	230	2.109	8732
117	34.3	3.852	230	2.148	9270
117	35.67	3.852	230	2.148	8131
117	37.05	3.699	230	2.07	8211
117	38.09	3.546	230	1.992	8201
117	39.42	3.392	230	1.914	8998
118	1.23	3.776	232	2.109	6289
118	2.45	3.852	232	2.148	7117
118	3.51	3.928	232	2.188	6786
118	4.87	4.004	232	2.227	7516
118	6.23	4.004	232	2.227	6879
118	7.53	3.852	232	2.148	8959
118	8.72	3.699	232	2.07	9774
118	9.95	3.546	232	1.992	8779
118	11.3	3.546	232	1.992	9958

118	12.54	3.469	232	1.953	8117
118	13.82	3.469	232	1.953	8127
118	15.04	3.546	232	1.992	9880
118	16.36	3.623	232	2.031	8869
118	17.64	3.469	232	1.953	8363
118	18.92	3.623	232	2.031	9502
118	20.16	3.546	232	1.992	7731
118	21.47	3.546	232	1.992	9331
118	22.69	3.546	232	1.992	9453
118	24	3.546	232	1.992	7682
118	25.3	3.546	232	1.992	9274
118	26.55	3.623	232	2.031	8531
118	27.86	3.623	232	2.031	9314
118	29.1	3.546	232	1.992	9208
118	30.34	3.546	232	1.992	9841
118	31.69	3.546	232	1.992	8724
118	32.96	3.623	232	2.031	9011
118	34.2	3.699	232	2.07	8958
118	35.43	3.699	232	2.07	7904
118	36.8	3.623	232	2.031	7553
118	38.02	3.469	232	1.953	7067
118	39.33	3.392	232	1.914	8994
119	1.24	3.623	234	2.031	6883
119	2.52	3.776	234	2.109	7349
119	3.74	3.776	234	2.109	7326
119	5.04	3.852	234	2.148	8345
119	6.3	4.08	234	2.266	7613
119	7.58	4.004	234	2.227	7945
119	8.83	4.004	234	2.227	8682
119	10.16	3.776	234	2.109	8653
119	11.41	3.546	234	1.992	8839
119	12.64	3.469	234	1.953	9422
119	13.94	3.469	234	1.953	8555
119	15.17	3.392	234	1.914	9299
119	16.52	3.469	234	1.953	9517
119	17.82	3.469	234	1.953	8156
119	19.02	3.546	234	1.992	8443
119	20.38	3.623	234	2.031	8102
119	21.55	3.776	234	2.109	7918
119	22.87	3.546	234	1.992	9121
119	24.14	3.623	234	2.031	8254
119	25.45	3.623	234	2.031	8304
119	26.66	3.699	234	2.07	8179
119	27.94	3.623	234	2.031	8246
119	29.2	3.623	234	2.031	8924
119	30.52	3.546	234	1.992	8020
119	31.78	3.546	234	1.992	8790

119	32.96	3.623	234	2.031	8692
119	34.29	3.623	234	2.031	8690
119	35.58	3.623	234	2.031	8059
119	36.98	3.699	234	2.07	6544
119	38.08	3.469	234	1.953	8369
119	38.09	3.469	234	1.953	7113
119	39.29	3.392	234	1.914	6824
120	1.19	3.546	236	1.992	5710
120	2.4	3.623	236	2.031	7720
120	3.54	3.852	236	2.148	6481
120	4.88	3.852	236	2.148	6955
120	6.21	3.852	236	2.148	7775
120	7.49	3.852	236	2.148	6810
120	8.69	3.776	236	2.109	7976
120	9.95	3.699	236	2.07	7293
120	11.27	3.699	236	2.07	7375
120	12.57	3.546	236	1.992	6664
120	13.82	3.623	236	2.031	8210
120	15.03	3.469	236	1.953	7625
120	16.34	3.546	236	1.992	7561
120	17.6	3.699	236	2.07	7471
120	18.92	3.776	236	2.109	7698
120	20.08	4.232	236	2.344	4803
120	21.44	4.004	236	2.227	5006
120	22.65	4.08	236	2.266	5261
120	23.96	4.004	236	2.227	4637
120	25.28	4.08	236	2.266	4714
120	26.57	4.004	236	2.227	5118
120	27.8	4.08	236	2.266	4300
120	29.07	3.928	236	2.188	5867
120	29.08	3.928	236	2.188	5914
120	30.3	3.623	236	2.031	7303
120	31.67	3.699	236	2.07	7473
120	32.9	3.776	236	2.109	7136
120	34.19	3.776	236	2.109	7300
120	35.47	3.776	236	2.109	6425
120	36.78	3.623	236	2.031	7599
120	38.04	3.469	236	1.953	6105
120	39.29	3.315	236	1.875	8209
121	1.26	3.623	238	2.031	5116
121	2.5	3.699	238	2.07	6385
121	3.75	3.776	238	2.109	6301
121	5.03	4.004	238	2.227	5536
121	6.32	4.004	238	2.227	5834
121	7.59	4.004	238	2.227	6405
121	8.76	3.852	238	2.148	6342
121	10.13	3.699	238	2.07	7829

121	11.37	3.546	238	1.992	9378
121	12.66	3.546	238	1.992	8801
121	13.95	3.469	238	1.953	8958
121	15.21	3.392	238	1.914	7921
121	16.53	3.469	238	1.953	9388
121	17.79	3.546	238	1.992	8609
121	19.05	3.623	238	2.031	8787
121	20.39	3.776	238	2.109	7111
121	21.61	3.699	238	2.07	9024
121	22.89	3.699	238	2.07	8641
121	24.13	3.699	238	2.07	7885
121	25.47	3.776	238	2.109	8391
121	26.7	3.776	238	2.109	7019
121	27.95	3.699	238	2.07	8562
121	29.27	3.699	238	2.07	8928
121	30.54	3.623	238	2.031	7869
121	31.81	3.699	238	2.07	8324
121	33.04	3.776	238	2.109	8632
121	34.3	3.699	238	2.07	7622
121	35.59	3.776	238	2.109	6591
121	36.92	3.699	238	2.07	7075
121	38.11	3.469	238	1.953	7959
121	39.41	3.392	238	1.914	6298
122	1.16	3.392	240	1.914	7363
122	2.42	3.392	240	1.914	8898
122	3.68	3.623	240	2.031	6648
122	4.92	3.776	240	2.109	7785
122	6.15	3.928	240	2.188	7709
122	7.46	3.928	240	2.188	7894
122	8.73	3.852	240	2.148	8016
122	10	3.699	240	2.07	8311
122	10.01	3.699	240	2.07	8499
122	11.29	3.699	240	2.07	8780
122	12.57	3.699	240	2.07	8147
122	12.59	3.699	240	2.07	8387
122	13.84	3.699	240	2.07	8805
122	15.12	3.699	240	2.07	7333
122	16.42	3.776	240	2.109	8672
122	17.62	3.776	240	2.109	8182
122	18.91	3.699	240	2.07	7869
122	20.15	3.852	240	2.148	7637
122	21.49	3.699	240	2.07	8938
122	22.76	3.699	240	2.07	7913
122	24.07	3.852	240	2.148	7961
122	25.35	3.852	240	2.148	8179
122	26.57	3.776	240	2.109	8458
122	27.86	3.699	240	2.07	7396

122	29.17	3.699	240	2.07	8175
122	30.38	3.623	240	2.031	8576
122	31.72	3.699	240	2.07	8136
122	31.74	3.699	240	2.07	8024
122	32.94	3.852	240	2.148	8094
122	34.19	3.776	240	2.109	7725
122	35.49	3.928	240	2.188	6970
122	36.77	3.699	240	2.07	7642
122	38.01	3.469	240	1.953	8113
122	39.26	3.392	240	1.914	8440
123	1.3	3.315	242	1.875	7089
123	2.52	3.469	242	1.953	7593
123	3.79	3.699	242	2.07	6180
123	5.03	3.776	242	2.109	7552
123	6.32	3.852	242	2.148	7893
123	7.5	3.928	242	2.188	6940
123	8.79	3.852	242	2.148	7504
123	10.11	3.776	242	2.109	8442
123	10.12	3.852	242	2.148	8234
123	11.33	3.928	242	2.188	8549
123	12.7	3.928	242	2.188	8272
123	13.94	3.928	242	2.188	7447
123	15.16	3.928	242	2.188	7486
123	16.43	4.004	242	2.227	6788
123	17.77	4.08	242	2.266	6981
123	19.08	3.928	242	2.188	6987
123	20.34	4.004	242	2.227	7346
123	21.64	4.08	242	2.266	6916
123	22.89	4.004	242	2.227	7483
123	24.1	4.08	242	2.266	6142
123	25.4	4.004	242	2.227	6058
123	26.69	4.08	242	2.266	5521
123	26.71	4.156	242	2.305	5854
123	27.96	4.08	242	2.266	6300
123	27.97	3.928	242	2.188	6900
123	29.31	3.852	242	2.148	7302
123	30.56	3.852	242	2.148	7889
123	31.77	3.852	242	2.148	7639
123	33.06	3.928	242	2.188	6641
123	34.33	3.852	242	2.148	6854
123	35.55	3.852	242	2.148	7670
123	36.83	3.699	242	2.07	7362
123	38.12	3.546	242	1.992	8432
123	39.4	3.315	242	1.875	6842
124	1.13	3.623	244	2.031	6635
124	2.38	3.776	244	2.109	6695
124	3.65	3.852	244	2.148	6775

124	4.95	3.928	244	2.188	6845
124	6.18	4.08	244	2.266	6073
124	6.19	4.08	244	2.266	6112
124	7.4	4.004	244	2.227	6138
124	8.73	4.004	244	2.227	6534
124	9.97	4.004	244	2.227	6452
124	11.19	3.928	244	2.188	8195
124	12.54	4.08	244	2.266	7931
124	12.55	4.08	244	2.266	7915
124	13.81	4.08	244	2.266	7780
124	15.14	4.156	244	2.305	7706
124	16.41	4.232	244	2.344	6950
124	17.62	4.156	244	2.305	7194
124	18.87	4.232	244	2.344	7646
124	20.16	4.307	244	2.383	7272
124	21.43	4.156	244	2.305	7572
124	22.78	4.08	244	2.266	7343
124	22.79	4.08	244	2.266	7230
124	24.13	4.156	244	2.305	6834
124	25.36	4.156	244	2.305	6446
124	26.57	4.08	244	2.266	6837
124	27.76	4.08	244	2.266	8024
124	29.24	4.08	244	2.266	7820
124	30.46	3.928	244	2.188	7958
124	31.79	4.004	244	2.227	8927
124	33.09	4.004	244	2.227	7690
124	34.25	4.08	244	2.266	7363
124	34.26	4.08	244	2.266	6794
124	35.53	4.08	244	2.266	6624
124	36.79	3.928	244	2.188	8192
124	38.08	3.699	244	2.07	8749
124	39.27	3.699	244	2.07	6565