

multibooted. In addition, the motivation to use the program is quite low, with users like the one quoted earlier complaining that the programs are boring and repetitious. Each concept is presented with too much text at an inappropriate reading level—students unable to understand the mathematics are unlikely to understand the explanation presented. This shortcoming makes it very difficult to use the software for the intended purpose of independent study.

Perhaps a precocious sixth grader might benefit from these programs in a setting where a separate course could not be offered at the appropriate level. However, such a student would have to be quite committed to the task to overcome the boredom. In a traditional prealgebra setting, I find the materials to be of little value. A set of review worksheets would be just as effective and far less costly than these programs.—*Linda M. Hayek, Omaha, NE 68128-6156.*

## Publications

Prices on software, books, and materials are subject to change. Consult the suppliers for the current prices.

### From NCTM

Twenty percent discount for individual NCTM members on NCTM publications. Free catalogs of NCTM publications are available by writing to NCTM, Department P. To order call toll free, (800) 235-7566.

**Developments in School Mathematics Education around the World, Vol. 2.** 1990, xiv + 475 pp., \$20 paper. ISBN 0-87353-302-X. National Council of Teachers of Mathematics, 1906 Association Dr., Reston, VA 22091, (800) 235-7566.

This well-documented book contains the proceedings of the second UCSMP International Conference on Mathematics Education held 7–10 April 1988 and additional invited reports prepared 1988–1990. The material is organized in three parts: (1) "School Mathematics Curriculum and Reform Process," (2) "Research in Mathematics Education," and (3) "The University of Chicago School Mathematics Project." It contains twenty-five well-written articles by leading mathematics educators in the United States, Belgium, Czechoslovakia, England, France, Hungary, Japan, Mexico, Poland, Sweden, and Germany. Each paper contains references and bibliographical notes about the author(s).

The book is a valuable source of information from a historical point of view and can help clarify the changes and developments in mathematics education that have taken place in recent years. It can serve as a basis for further research and development in mathematics education. Especially worth knowing about are the efforts by NCTM to design and implement the *Curriculum and Evaluation Standards for School Mathematics* (1989) and the programs and activities of the Mathematical Sciences Education Board of the National Research Council. No less important are the efforts, beliefs, goals, and accomplishments of the UCSMP. It is interesting to learn the underlying forces for reform changes in mathematics education in other countries, their innovations, and their efforts toward the change. Content material and the approach used to solve some problems are also worth noting.

The papers in the research section deal with the intellectual and emotional maturity of children to learn mathematics; pedagogical implications; cognitive and social aspects of proof; and interrelationships among content, learning, and teaching.

Educators interested in mathematics education research will find this volume enlightening.—*Erika B. Truckson, University of Cincinnati, Cincinnati, OH 45221.*

### From Other Publishers

**The Art of Problem Solving: Vol. 2: and Beyond,** Richard Rusczyk and Sandor Lehoczky. 1994, 389 pp. + 211-pp. solutions manual, \$35. Greater Testing Concepts, P.O. Box A-D, Sanford, CA 94309, (415) 964-1124.

The second in a series, this volume offers problems with a broader range of difficulty than those in volume 1. More than two dozen chapters include the following topics: logarithms, conics and polar equations, complex numbers, combinatorics, diophantine equations, and graph theory. The typical format of each chapter is a topic introduction followed by solved examples, exercises, and a concluding, nonroutine problem set. The subject discussion is clearly and concisely presented with appropriate examples and exercises. The more than 500 problems are consecutively numbered; a final chapter of special challenges contains 72 problems. A separate manual gives complete and detailed solutions.

This volume might be best used with a mathematics club or team or as an independent study resource. Although it could be used as a classroom textbook, the level of subjects and the absence of routine practice problems make this book best suited for stronger students. In their introductory message to teachers and students, the authors recommend teaching problem-solving approaches, not just facts. However, problem-solving strategies are not specifically addressed. This book is varied in its topic range and rich in challenge, and it supplies a full reservoir of contest-like examples and solutions for recreational problem solving.—*Dorothy Galo, Hingham Public Schools, Hingham, MA 02043.*

**Chaos under Control: The Art and Science of Complexity,** David Peak and Michael Frame. 1994, xiv + 408 pp., \$24.95 paper. ISBN 0-7167-2429-4. W. H. Freeman & Co., 41 Madison Ave., New York, NY 10010, (212) 561-8221.

The authors of this book have successfully presented the topics of chaos and fractals in an easy-to-understand, yet comprehensive, manner for non-science and science students at the high school

and university levels. Readers are introduced to these topics so that they will become excited about mathematics and physics and will see, through fractals, a mathematics that relates to everyday life.

The book illustrates how the study of fractals and chaos has the potential to connect many areas of interest, both within the sciences and between the sciences and the arts and humanities. Topics included are snowflakes; ferns; noise, music, and visual art; atrial fibrillation; stock-market fluctuations; prisms, pianos, and spectral analysis; Mandlebrot and Julia sets; Newton's method; and cellular automata. Sixteen color plates and appropriate exercises are included. NCTM's *Fractals for the Classroom: Strategic Activities, Vol. 1* (1991) and *Vol. 2* (1992) furnish good supplementary exercises. Additional problems and computer software are available on request for the cost of mailing and handling.

This book is appropriate for students at the senior high and college levels and is certainly a "must" for anyone who has wondered what in the world fractals and chaos were all about but never dared to ask.—*Edwin Giesbrecht, Algoma University, Sault Sainte Marie, ON P6A 2G4.*

**Fear of Math: How to Get Over It and Get On with Your Life,** Claudia Zaslavsky. 1994, x + 264 pp., \$14.95 paper. ISBN 0-8135-2099-1. Rutgers University Press, 109 Church St., New Brunswick, NJ 08901, (908) 932-7764.

The chapters in *Fear of Math* include "Who's Afraid of Math?" "Who Needs Math? Everybody!" "Myths of Innate Inferiority," "A Mind's a Terrible Thing to Waste!" Gender, Race, Ethnicity, and Class," "Our Schools Are Found Wanting," "School Math Is Not Necessarily Real Math," "Everybody Can Do Math: Solving the Problem," "Families, the First Teachers," and "Mathematics of the People, by the People, for the People." The book also includes an appendix rich with resources: intervention programs, organizations and government agencies, distributors of mathematics books and materials, and an annotated bibliography. In her treatment of class, gender, and race issues, Zaslavsky highlights the discrim-