

**Mini-bibliography... Graph Theory***(Continued from page 8)***Intermediate:**

*Barnette, David, Map Coloring, Polyhedra and the Four-color Problem, Mathematical Association of America, Washington, 1983.* This book treats topics about graphs and polyhedra related to the four-color problem. Euler's polyhedral formula ( $V-E+F=2$ ) is treated in detail.

*Beineke, Lowell, and Wilson, Robin (eds.), Selected Topics in Graph Theory, 1, 2, and 3; Applications of Graph Theory, Academic Press, New York, 1978, 1983, and 1988.* These volumes contain a collection of survey articles which cover a tremendous amount of the graph theory landscape. Topics covered include hamiltonian circuits, chromatic polynomials, communications networks, applications to architecture, etc. Although nominally designed for researchers in graph theory, these books can be looked at for ideas by relative beginners.

*Capobianco, M., and Molluzzo, J., Examples and Counterexamples in Graph Theory, American Elsevier, New York, 1978.* This book includes a rich variety of graph examples that show that certain theorems are best possible.

**Advanced:**

The last three books are popular advanced undergraduate and graduate texts. However, since graph theory is so relatively accessible, parts of these books will be appealing to relative newcomers to the subject.

*Bondy, J.A., and Murty, U.S.R., Graph Theory with Applications, American Elsevier, New York, 1979.*

*Chartrand, G., and Lesniak, L., Graphs and Digraphs (second edition), Wadsworth, and Brooks/Cole, Monterey, California, 1986.*

*Harary, F., Graph Theory, Addison-Wesley, Reading, Massachusetts, 1969.*

**Implementation of NCTM Discrete Mathematics Standard Project**

This three year project based at Boston College gets underway July 13, 1992 with a three week summer leadership workshop in which teachers with prior experience teaching discrete math are trained to become members of leadership teams that will instruct groups of teachers in summer workshops at six sites in years two and three of the project. Information and applications are available from the Project Director, Dr. Margaret Kenney at the Boston College Mathematics Institute, Chestnut Hill, MA 02167.

**Leadership Program in Discrete Mathematics -- Summer 1992**

During the summer of 1992, the fourth annual *Leadership Program in Discrete Mathematics* will take place at Rutgers University, New Brunswick, New Jersey. Two three-week residential institutes are scheduled for June 29 to July 17, 1992.

One institute will be designed primarily for high school teachers; a second parallel institute will be designed for middle school teachers and elementary mathematics specialists. Middle school teachers may attend either institute. Participants will be expected to attend follow-up sessions during the 1992-1993 school year and a one- or two-week program in the following summer.

Participants will also be expected to develop materials and activities for incorporating discrete mathematics topics in their classes, to play leadership roles in introducing these topics into their schools and curricula, and to conduct workshops on these topics in their schools and districts.

The three main topics in the three-week program for high school teachers will be applications of graphs, algorithms and graphs, and combinatorics. In the following summer, additional topics in discrete mathematics will be covered during a two-week program.

The three-week program for middle school teachers will deal with applications of graphs, combinatorics, probability, geometry, and fractals. In the following summer, a one-week program will be designed to help participants consolidate their knowledge of these topics.

Also offered will be a seven-day leadership training program for teachers who are experienced with discrete mathematics. Participants will develop materials for in-service workshops and will be expected to offer these workshops in various schools during the 1992-93 school year. The dates of the program are May 15-16 and July 27-31, 1992.

Anticipated funding from the National Science Foundation will pay for participants' room and board, and a stipend of \$300 per week of the program. The *Leadership Program in Discrete Mathematics* is sponsored by the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) and the Center for Mathematics, Science, and Computer Education (CMSCE) at Rutgers University.

Applications will be due by March 13, 1992. To receive an application form, please call Stephanie Micale at 908/932-4065, or write to CMSCE - Leadership Program, P.O. Box 10867, New Brunswick, New Jersey 08906.