Williams, Royce, Harold Panabaker Junior High School, Calgary.
Topics in junior high school mathematics curriculum. Junior high school teachers.

Zissos, D., Department of Mathematics, The University of Calgary, Calgary.
Topics in computers, computer applications, computer hardware and software.
Any interested group.

BOOK REVIEW

MATHEMATICS AND SOCIETY - The COSRIMS Report

Teachers of mathematics and mathematicians are regularly called upon to answer questions such as "What is mathematics? What role and importance does it have in life? What mathematics should we teach in the schools and to whom?" And teachers are vitally concerned with yet another question: "How do we do it?" Any responsible group considering the problem of the mathematics curriculum has had to address itself to these questions. They are dealt with again in a report that is attracting widespread interest.

Several years ago the Division of Mathematical Sciences of the National Academy of Sciences, becoming concerned about the decreasing federal support for research in mathematics, appointed the very prestigious Committee on Support of Research in the Mathematical Sciences (COSRIMS). The report of this Committee has been published in three volumes: A *Report* (vol.1), *Undergraduate Education* (vol.2), and A *Collection of Essays* (vol.3).

While a report on research ordinarily has limited relevance to the world of the man in the street or to the daily work of the teacher in his classroom, this report is a signal exception to that rule. Especially the first half of the first volume and all of the third volume will be of prime interest to both the general reader and the classroom teacher.

Beginning with an articulate, eloquent, detailed, and up-to-date account of the role of mathematics in modern life, the first volume traces the mathematicization of our culture from physics through the other physical sciences and now the life sciences. Also discussed is the current penetration of mathematics into the social and behavioral sciences and into traditionally humanistic areas, not to mention the worlds of government, industry, and business. Applications in economics, anthropology, sociology, and even linquistics are touched upon.

With the vastly increased need for people who can understand and use mathematics, teachers should seek, at all times, illustrations of the nature and uses of mathematics in order to motivate more students to pursue mathematical studies. *The Mathematical Sciences: A Report* is clearly a gold mine of such motivational illustrations.

The brilliant third volume, A *Collection of Essays*, was written by stars of the first magnitude in the galaxy of mathematicians. It provides nontechnical summaries of the current state of several branches of core mathematics such as complex analysis, functional analysis, differential topology, combinatorial analysis, point-set topology, and the continuum hypothesis. Exciting illustrations are given of the coordination of mathematics and other disciplines: the use of mathematics in the social sciences, the part played by analytic functions in research on the elementary particles, the role of mathematics in economics, the development of mathematical linguistics, and the use of mathematics in the biomedical sciences.

Certainly these volumes should be on the shelves of all teachers of mathematics. They will be useful to students as well - and, yes, to interested parents. The first two volumes, *The Mathematical Sciences: A Report* ($6.00) and *The Mathematical Sciences: Undergraduate Education* ($4.25), are available from the Printing and Publishing Office, National Academy of Sciences - National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418. The third volume, *The Mathematical Sciences: A Collection of Essays* ($8.95) is available in the paper edition ($3.95) from The M.I.T. Press, Massachusetts Institute of Technology, Cambridge, Mass. 02142.

Julius H. Hlavaty
Reprinted from *aatm*, a publication of the
Arizona Association of Teachers of Mathematics
Vol. VI, December, 1969