Historical View...

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Man-Made Universe [8], which treated a range of subjects from number theory, combinatorics, and modern algebra.

By 1970, departments such as business or accounting were requiring Finite Mathematics for their majors, changing the emphasis in the course to make it less valuable for general liberal arts students. Moreover, a higher proportion of students entering college were weak in algebra (and symbol manipulation in general), yet both the Finite Mathematics and Topics courses assumed a strong background in algebra. In fact, in many schools the liberal arts mathematics course degenerated into a review of basic skills, unsatisfactory for both students and faculty. At the same time, there had been vibrant growth in Discrete Mathematics, stimulated by the development of the digital computer; much of the mathematics is based on relatively elementary logical and geometric ideas rather than algebraic manipulation.

These developments together spawned the text *For All Practical Purposes,* which represents a truly new approach for the liberal arts mathematics course. The content of this innovative book is best described as Applied Discrete Mathematics. The topics include game theory, voting systems, fair division, graph theory, algorithms, and statistics, but the point of view is quite different from that of the new generation of Finite Mathematics texts. The new approach underlines the importance for liberal arts students of analyzing and understanding real-world situations and building mathematical models (see [4]) rather than gaining facility with solving exercises based on the models.

The number of liberal arts mathematics courses adopting this point of view is increasing, and new texts with similar content are appearing (e.g., [9]). My hope is that such courses will ultimately foster a climate in which the public perceives that mathematics is responsible for dramatic improvements in technology, and has direct benefits to society.

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3. Franzblau, D., "New Models for Courses in Discrete Mathematics," SIAM Activity Group on Discrete Mathematics, *Newsletter,* Volume 4, #2, 1993-1994.

4. Malkevitch, J., and W. Meyer, *Graphs, Models and Finite Mathematics,* Prentice-Hall, Englewood Cliffs, 1974.

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Editors' note: In a previous Newsletter (#2, p. 10), we printed an enthusiastic review by Anthony Piccolino of *For All Practical Purposes.* The article above was adapted from a longer article by the author which will appear in the Newsletter of the SIAM Activity Group in Discrete Mathematics.

A Pizza Cutting Problem

by Constance Cunningham

This is a lesson I implemented in a Basic Math I class, of primarily "at risk" students in grades nine and ten who had no formal algebra training. The lesson was based on ideas from an article by Mary Kim Prichard [1]. I began by presenting a pizza cutting problem:

How many cuts would you need to make in a giant pizza so that each student in our school could have one piece (not necessarily the same size)?

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