

The great virtue of this book is that every chapter is followed by a lengthy set of exercises. Some of these provide routine examples, some contain matters usually treated as theory, such as the Plücker formulae and the Cayley-Bacharach theorems.

The book assumes a strictly geometric (one is tempted to say old fashioned) point of view, though numerous references are made to more algebraic procedures, and a bibliography is provided to allow the student to follow these up.

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Mathematical Discovery, vol. I, by George Polya. Wiley, New York, 1962. xv + 216 pages. \$3.95.

This book is a continuation of the author's two earlier ones, How to Solve It and Mathematics and Plausible Reasoning; its level of presentation, however, seems to be somewhere between that of these other two.

One of the purposes of the book is to give high school mathematics teachers and students an opportunity to develop insight and to acquire experience in a methodical approach to problem-solving. Much of the material is based on seminars in problem-solving that the author has conducted in recent years.

The book is divided into two parts. The first four chapters, comprising part one, consist of the presentation of the solution to a few problems. The problems are chosen so that a careful examination of the solutions suggests a general pattern which is finally formulated explicitly. Some of the types of problems treated are those involving the intersection of two loci, recursion, and superposition. The remaining two chapters form the introduction to part two in which is discussed the general procedure of analyzing a problem in attempting to discover a solution. A second volume is to appear, containing the rest of part two.

Each chapter concludes with a selection of interesting and non-routine problems (solutions are provided) designed to enable the reader to improve his ability to solve problems, and which form, perhaps, the most valuable element of the book.

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