

The two authors of this book, Alfred S. Posamentier and Stephen Krulik, have a wide experience in teaching mathematics, being the teaching of problem solving one of their major area of interest.

The title of this book is illuminated by its subtitle “From Common Approaches to Exemplary Strategies” standing out the critical step in the problem-solving process. Most current problem-solving models are based on four-step heuristic model: (1) Read the problem, (2) Select an appropriate strategy, (3) Solve the problem, and (4) Look back or reflect on the solution. The key to the entire process is selecting a proper strategy, or deciding how to attack the problem. This book is dedicated to examine this critical point in detail.

The book is divided into 10 chapters. Each of them dedicated to one of the 10 most valuable strategies to use when solving problems. The strategies considered are the following:

1. Logical Reasoning
2. Pattern Recognition
3. Working Backwards
4. Adopting a Different Point of View
5. Considering Extreme Cases
6. Solving a Simpler analogous Problem
7. Organizing Data
8. Making a Drawing or Visual Representation
9. Accounting for All Possibilities
10. Intelligent Guessing and Testing

Each chapter begins with a description of the particular strategy, showing how it can be applied to some everyday situations, and presents examples of how it can be applied in mathematics setting. Then, it presents a series of problems, suggests the most obvious or common approach and finally presents a more elegant, or exemplary solution, demonstrating how the problem -solving strategy under consideration will lead to the answer. The authors point out that each one can develop their own strategies and encourage the reader to do so.

This is a wonderful book, filled with problems and witty solutions, addressed anyone interested in problem-solving. Elementary mathematics is used so that the reader can focus on the strategy.

The reader will enjoy reading this book and trying to find their own strategies to arrive at the solution of the problems proposed.