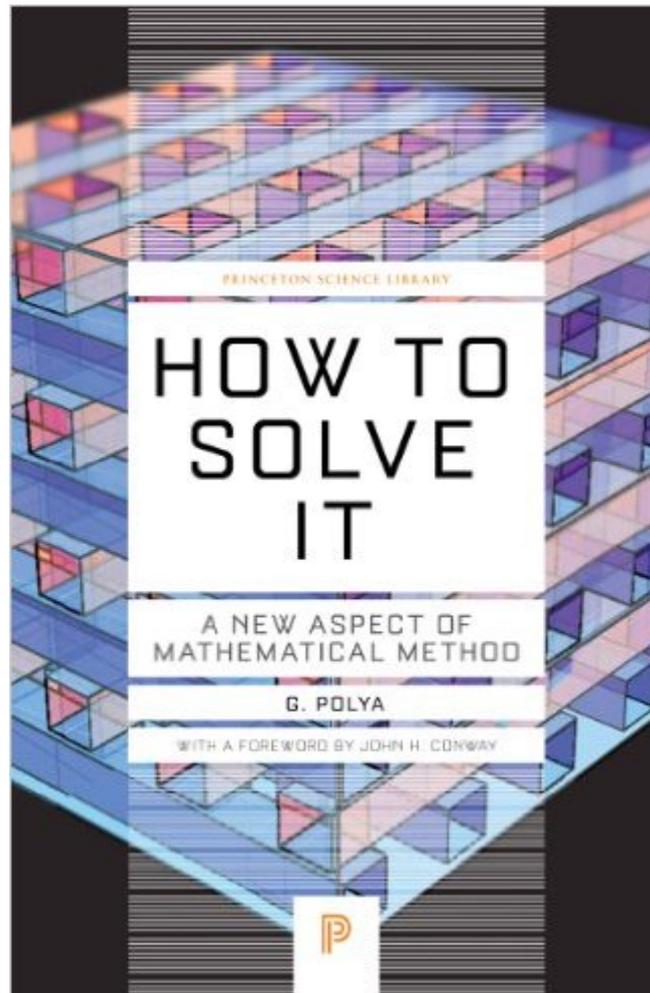# How To Solve It: A New Aspect Of Mathematical Method (Princeton Science Library)

Synopsis

A perennial bestseller by eminent mathematician G. Polya, How to Solve It will show anyone in any field how to think straight. In lucid and appealing prose, Polya reveals how the mathematical method of demonstrating a proof or finding an unknown can be of help in attacking any problem that can be "reasoned" out--from building a bridge to winning a game of anagrams. Generations of readers have relished Polya's deft--indeed, brilliant--instructions on stripping away irrelevancies and going straight to the heart of the problem.

Book Information

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Customer Reviews

Are you like a dog with a bone when you're working on a brain teaser? After pages of scribbles, do you get a big grin on your face when you turn to the answers and say: "I'm right!" Then this book is for you.And if you're not yet a die-hard problem-solver? You should step right up, too. You may get hooked.G. Polya's book is based on the fact that, if we study how someone does something successfully, we can learn to do it successfully as well. How To Solve It is an application of 'heuristics' to solving problems.There are certain mental operations useful in solving problems, any sorts of problems. Polya (who was an eminent mathematician and former Professor of Mathematics at Stanford University) describes and illustrates the most usual and useful of these operations, in a way that is irresistible and eye-opening.These useful mental operations are organized according to when they come into play during the four steps to solving a problem. 1. You have to understand the

problem. (Not as easy as it sounds.) 2. Find the connection between the data given and the unknown. Conceive the idea of a plan for the solution. 3. Carry out the plan. 4. Examine the solution obtained.If you take some time and try to solve the problems selected to illustrate each mental operation, you will be well-rewarded. You will likely discover something surprising about your own problem-solving methods, and improve them in the process. You will definitely discover many new ideas and techniques to add to your arsenal.For example, a first impulse when confronted with a problem is often to try to 'swallow it whole' -- to try to meet all of the conditions of the problem at once. G. Polya suggests keeping only part of the condition, and dropping the other part.

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