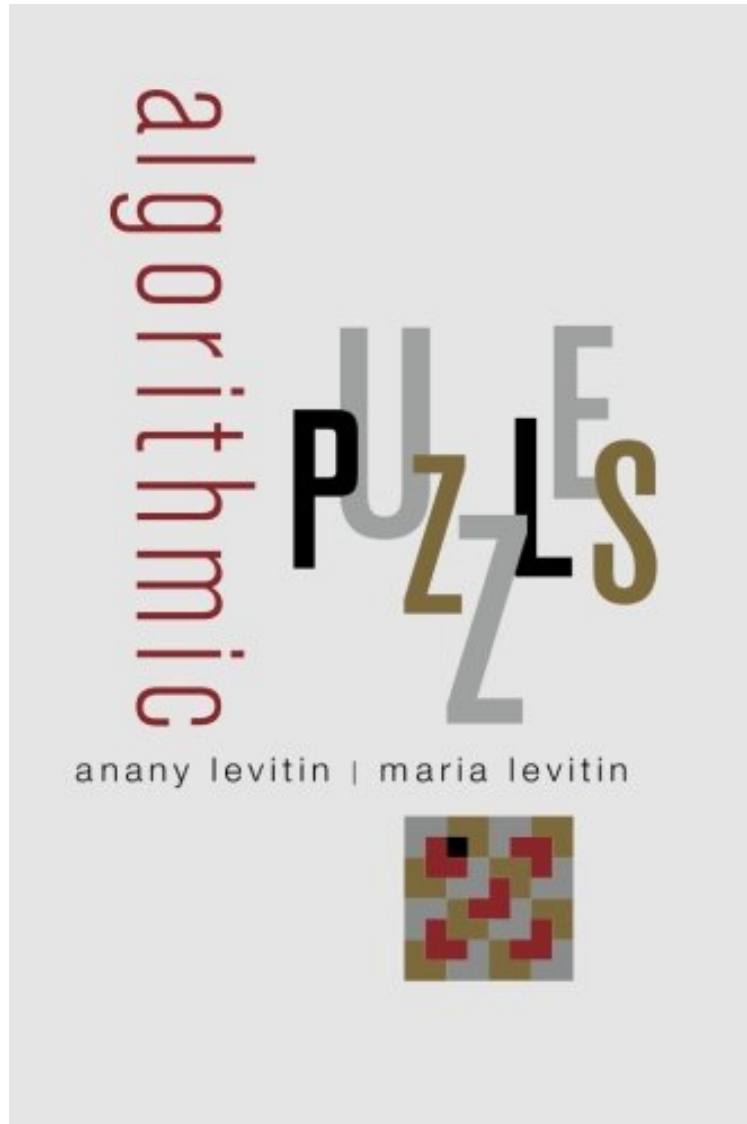


(Pdf free) Algorithmic Puzzles

## Algorithmic Puzzles

*Anany Levitin, Maria Levitin*

*DOC | \*audiobook | ebooks | Download PDF | ePub*



DOWNLOAD



READ ONLINE

#89499 in Books Oxford University Press 2011-10-14 2011-10-14 Original language: English PDF # 1 6.10 x .70 x 9.10l, .88 #File Name: 0199740445280 pages | File size: 40.Mb

**Anany Levitin, Maria Levitin : Algorithmic Puzzles** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Algorithmic Puzzles:

2 of 2 people found the following review helpful. A Fun, Challenging Puzzle Book for Software Developers Prepping for Interviews or Anyone That Enjoys Solving Puzzles! By andrewforbes88 This book is a great resource for software development interviews or if you just want to blow off some steam and solve some fun puzzles. In many software interviews you will be asked to devise an algorithm to solve a problem or execute an objective. This book is by no means an exhaustive list of algorithmic puzzles that you'll encounter in interviews, but it does have several classic

puzzles, as well as a number of puzzles I've never seen before. The puzzles themselves are very fun to solve and they'll get your brain thinking algorithmically. There's also great advice and information about how to devise systems to solve common problems using algorithms, so even if the challenges you're given in an interview aren't in this book you'll be studied up on how to devise your own systems for solving problems. One notable omission is the Tower of Hanoi puzzle, that is a classic and I suggest you look it up if you enjoy this type of thing. Overall I think this book is great for software developers looking to get into mental shape for interviewing, but don't think that you have to be a computer science major to enjoy this book. The puzzles are just plain fun to solve, and the skills you will acquire when learning to devise algorithms are certainly applicable in other fields. I highly recommend this book to any developers looking for a mental workout before an interview or anyone that just likes fun, challenging puzzles.

2 of 2 people found the following review helpful. Good book to practice algorithmic proof based math problems and puzzles

By Abhi This is a very good book. Among many techniques used in math and in puzzles, algorithmic type of proofs exist for problems where the problem state either directly involves an algorithm or the problem state can be used to derive an algorithm. Algorithms of this sort have certain properties like some quantity either strictly increases, or strictly decreases, or it remains constant etc. Observations of what happens to such quantities can lead to solution of such problems. Good thing is that it has hints and solutions which are given in separate sections so that if you cannot solve it using hints, you can look at the solutions later. Highly recommended for people interested in problem solving.

6 of 6 people found the following review helpful. Genius

By Chris Took this book camping. Very clever puzzles from one of the best professors I ever had. This book is a great learning tool.

While many think of algorithms as specific to computer science, at its core algorithmic thinking is defined by the use of analytical logic to solve problems. This logic extends far beyond the realm of computer science and into the wide and entertaining world of puzzles. In *Algorithmic Puzzles*, Anany and Maria Levitin use many classic brainteasers as well as newer examples from job interviews with major corporations to show readers how to apply analytical thinking to solve puzzles requiring well-defined procedures. The book's unique collection of puzzles is supplemented with carefully developed tutorials on algorithm design strategies and analysis techniques intended to walk the reader step-by-step through the various approaches to algorithmic problem solving. Mastery of these strategies--exhaustive search, backtracking, and divide-and-conquer, among others--will aid the reader in solving not only the puzzles contained in this book, but also others encountered in interviews, puzzle collections, and throughout everyday life. Each of the 150 puzzles contains hints and solutions, along with commentary on the puzzle's origins and solution methods. The only book of its kind, *Algorithmic Puzzles* houses puzzles for all skill levels. Readers with only middle school mathematics will develop their algorithmic problem-solving skills through puzzles at the elementary level, while seasoned puzzle solvers will enjoy the challenge of thinking through more difficult puzzles.

"*Algorithmic Puzzles* by Anany Levitin and Maria Levitin is an interesting and novel style of puzzle book. The emphasis lies in training the reader to think algorithmically and develop new puzzle-solving skills: the majority of puzzles are problems where we are asked to find the shortest distance or the fewest moves to get from A to B, or construct a proof that a puzzle has no solution. The book provides plenty of puzzles to keep even the most avid problem-solvers busy for a long time, all with varying levels of difficulty and different styles/contexts. The solutions provided are comprehensive and explain themselves in a friendly, constructive manner, complete with illustrations. In addition to questions and answers, a section of brief hints is also provided to assist the reader in their puzzle-solving endeavours." -- Graham Wheeler, Significance

About the Author Anany Levitin is a professor of Computing Sciences at Villanova University. He is the author of a popular textbook on design and analysis of algorithms, which has been translated into Chinese, Greek, Korean, and Russian. He has also published papers on mathematical optimization theory, software engineering, data management, algorithm design, and computer science education. Maria Levitin is an independent consultant. After some years working for leading software companies and developing business applications for large corporations, she now specializes in web-based applications and wireless computing.