Aha! Solutions (MAA Problem Book Series)

Martin Erickson
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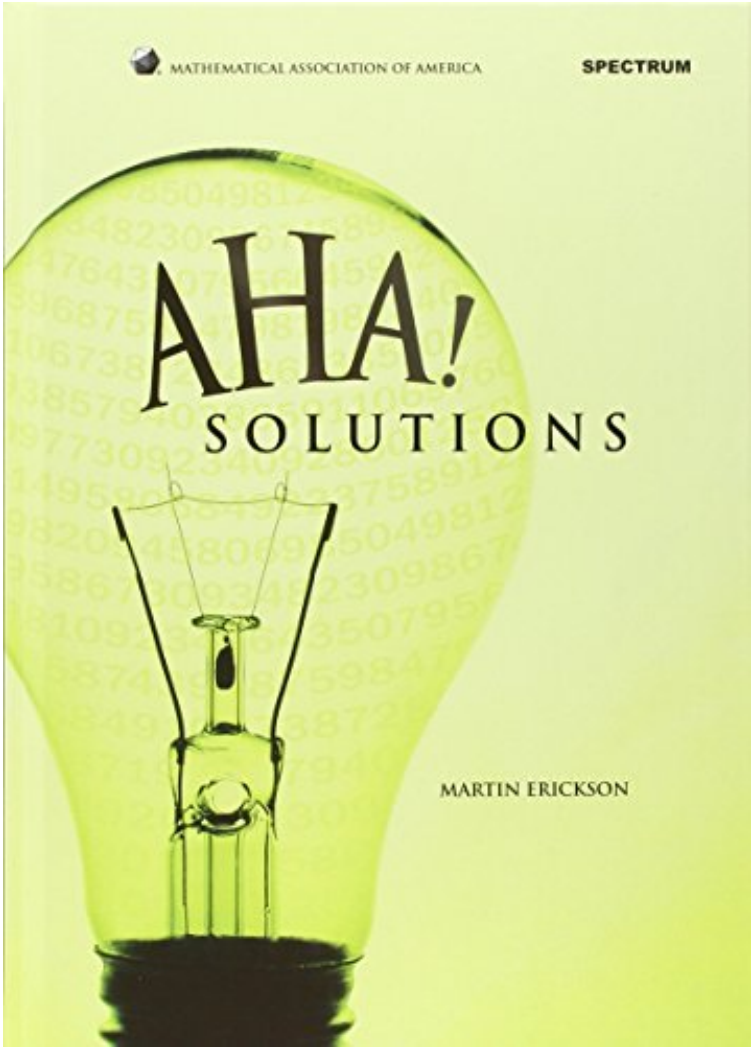

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Martin Erickson : Aha! Solutions (MAA Problem Book Series) before purchasing it in order to gage whether or not it would be worth my time, and all praised Aha! Solutions (MAA Problem Book Series):

Every mathematician (beginner, amateur, and professional alike) thrills to find simple, elegant solutions to seemingly difficult problems. Such happy resolutions are called ``aha! solutions," a phrase popularized by mathematics and science writer Martin Gardner. Aha! solutions are surprising, stunning, and scintillating: they reveal the beauty of mathematics. This book is a collection of problems with aha! solutions. The problems are at the level of the college mathematics student, but there should be something of interest for the high school student, the teacher of mathematics,

the ``math fan," and anyone else who loves mathematical challenges. This collection includes one hundred problems in the areas of arithmetic, geometry, algebra, calculus, probability, number theory, and combinatorics. The problems start out easy and generally get more difficult as you progress through the book. A few solutions require the use of a computer. An important feature of the book is the bonus discussion of related mathematics that follows the solution of each problem. This material is there to entertain and inform you or point you to new questions. If you don't remember a mathematical definition or concept, there is a Toolkit in the back of the book that will help.

Erickson provides 100 exemplary problems to whet any problem-solver's appetite....A bonus is Erickson's detailed discussion of an AHA solution to each problem followed by discussion fo related problems and mathematics. --J. Johnson, CHOICE MagazineErickson collected 100 problems from different areas of mathematics, and as one progresses in the text, they go from elementary to advanced. A short "toolkit" of ten pages at the end recalls some of the definitions and very elementary mathematics that are needed. The number 100 is actually an understatement because almost all of the problems come with a "bonus" that gives background, but also variations and extensions of the basic problem that is tackled. The number theoretic examples are of course easy to understand for anyone, but there are also problems from calculus, probability, combinatorics, and geometry. They are all easy to understand with only little or no mathematical knowledge. The solutions however are sometimes much more demanding on that part. A computer is rarely needed. The formulation of the problem (often one or two lines) is immediately followed by the solution. This is fortunate for readers who get easily addicted to puzzles, because if problems and solutions were in different sections, you could get hooked in trying to solve the puzzles by yourself. It is an excellent advertisement for the fun and the beauty of mathematics. --Bulletin of the Belgian Mathematical SocietyAbout the AuthorMartin Erickson is Professor of Mathematics at Truman State University. He received his Ph.D. at the University of Michigan in 1987. He has authored three mathematics textbooks: Introduction to Number Theory(with Anthony Vazzana; Chapman Hall), Introduction to Combinatorics and Principles of Mathematical Problem Solving.