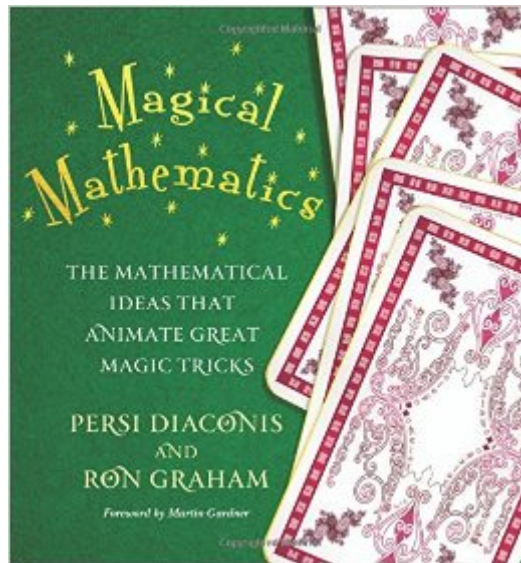# Magical Mathematics: The Mathematical Ideas That Animate Great Magic Tricks

Synopsis

Magical Mathematics reveals the secrets of fun-to-perform card tricks--and the profound mathematical ideas behind them--that will astound even the most accomplished magician. Persi Diaconis and Ron Graham provide easy, step-by-step instructions for each trick, explaining how to set up the effect and offering tips on what to say and do while performing it. Each card trick introduces a new mathematical idea, and varying the tricks in turn takes readers to the very threshold of today's mathematical knowledge. Diaconis and Graham tell the stories--and reveal the best tricks--of the eccentric and brilliant inventors of mathematical magic. The book exposes old gambling secrets through the mathematics of shuffling cards, explains the classic street-gambling scam of three-card Monte, traces the history of mathematical magic back to the oldest mathematical trick--and much more.

Book Information

Hardcover: 264 pages

Publisher: Princeton University Press; First Edition edition (October 23, 2011)

Language: English

ISBN-10: 0691151644

ISBN-13: 978-0691151649

Product Dimensions: 0.8 x 8.8 x 10 inches

Shipping Weight: 1.8 pounds (View shipping rates and policies)

Average Customer Review: 4.3 out of 5 stars See all reviews (27 customer reviews)

Best Sellers Rank: #189,313 in Books (See Top 100 in Books)   #50 in Books > Arts & Photography > Performing Arts > Magic & Illusion   #62 in Books > Humor & Entertainment > Puzzles & Games > Magic   #74 in Books > Humor & Entertainment > Puzzles & Games > Math Games

Customer Reviews

The book is packed with fantastic card tricks that will surely dazzle friends and family (with enough practice), but goes beyond this by explaining the beautiful (often deep) mathematics behind the tricks. The book intersperses magic and mathematics in an engaging way that keeps the reader hooked. The book begins with a simple 4 card trick. Well, simple enough to perform; understanding is a different matter. The authors then explain what mathematical concepts (mostly involving combinations and permutations) are at the heart of the trick, and then generalize the principle involved into a truly impressive, more elaborate card trick. After that, it's back to math to see exactly

how and why the magic works. Later chapters follow similar patterns, where the reader is drawn in by a beautiful card trick and the beauty is then heightened with a clear explanation of the underlying mathematics. Along the way, the authors give excellent advice on how often to rehearse the tricks before performing as well as entertaining tips to make for a more engaging performance. The mathematics is presented in digestible bites, with excellent examples and illuminating illustrations.But be warned: this isn't your simple high school math! Many of these tricks employ sophisticated mathematics using Combinatorics, Group Theory, Graph Theory and more. Fortunately, the authors are adept at explaining these complicated concepts in a clear fashion, but the novice reader may have some trouble following some of the proofs. Hopefully, the reader will be so inspired by the beauty of the subject, that she'll see it as motivation to learn more mathematics! In fact, the authors' unapologetic goal with this text is to corrupt youngsters of all ages into pursuing mathematics in much the same way that the authors themselves were seduced by the subject. Here's hoping they succeed with you as they have with me!

I have worked every trick in this book at least a few times. I keep doing them, reading the math, and doing the tricks again. The more I understand the math behind the magic, the more magical the tricks become. I really enjoyed reading about the other magicians who also use math in their magic. This is a wonderful book!

Ever since I was a child, I've always had a penchant for magic tricks. Since I've also maintained a great love for mathematics, I could not resist buying this book as soon as I stumbled upon it. Here, the authors, both professors of mathematics (one a magician and the other a juggler), cover the mathematics involved in performing magic tricks. Most of these tricks involve cards, but some use coins and other items, and one chapter even covers juggling. Other puzzles are also discussed, including the I Ching. But the authors never lose sight of the mathematics involved, i.e., mainly combinatorics, number theory and group theory; the authors classify themselves as combinatorialists. Towards the end of the book, the authors pay homage to a few famous magicians of the past and their contributions to the field of magic. Throughout the book, the camaraderie amongst magicians really stands out.With a peppering of a few anecdotes from the authors' pasts, the book glows with the joy of magic (and of mathematics). As one reads the chapters, it becomes clear that writing this book must have been a labour of love for the authors. I have read it from cover to cover and really enjoyed it. Now, I need to go through it again but this time to study the (sometimes tricky) mathematical principles presented and give the associated tricks more thought

(and practice).

The best thing about this book is that you can perform the "tricks" without knowing the math that makes it possible. I picked up the three or four most simplest ones in an hour or so. The fact that most of the results are based on mathematical formulas is truly the best part. No sleight of hand or subterfuge is necessary and no one has been able to figure them out. Get the book and have some fun.

Two great mathematicians share the interplay between mathematics and magic, as well as practical applications in other areas for the mathematics that informs some stunning tricks. I'm not a performer, but I can readily see how much impact these tricks would be if performed by someone who put in the requisite practice. For me, the payoff is the math itself.

Some of the customer reviews are down on this book because it is not what they want the book to be. I recommend enjoying the book for what it is; and there is enough variety for some parts of the book to appeal to everyone. As the famous magician Ricky Jay says in his back cover blurb, it is, "A remarkably appealing concoction of conjuring, invention, education, science, homage, and memoir." It is easy to skip the math that is too complicated (and it's really not that large a part of the book), and some of the math is just arithmetic and basic calculation of odds. I'll never try to perform a magic trick or study heavy math, but I do like puzzles and games; and this book is plenty interesting enough in the puzzles-and-games dimension. And, personally, I like the book's memoir (both of the authors have had fascinating lives) and homage (the author's describe a nice, if not comprehensive, selection of interesting people they venerate). Since the book arrived from a few days ago, I have thumbed through the entire book and read many parts in detail. I expect I will continue to dip into the book over the coming weeks concentrating on understanding the not-really-difficult-but-complicated parts a bit at a time. I am also looking at some videos on the net that demonstrate some of the tricks discussed in this book. I definitely will mention this book to anyone who asks, "Have you seen any interesting books lately?" And I am certain I will go to the library to check out some of the books in the bibliographic notes at the end of this book.

Magical Mathematics: The Mathematical Ideas That Animate Great Magic Tricks Magic Cards: Magic the Gathering - 33 Killer Tips from a Magic Master! (Magic Cards, Magic the Gathering, Magic Decks, Magic the Gathering Tips, Magic Card Tips, How to Play Magic, Magic) MAGIC

TRICKS: How to do easy illusions and magic card tricks for kids (magic, tricks) The Secret of Mental Magic Tricks: How to Amaze Your Friends with These Mental Magic Tricks Today! Animation 1: Learn to Animate Cartoons Step by Step (Cartooning, Book 1) Magic Tricks from the Tree House: A Fun Companion to Magic Tree House #50: Hurry Up, Houdini! (Magic Tree House (R)) Expert Tricks and Tips that will make you a Minecraft expert: Tricks you are not aware of (minecraft, minecraft tips, minecraft tricks, minecraft monsters) Mathematical Interest Theory (Mathematical Association of America Textbooks) Mind-Blowing Magic: Card Tricks - Easy Tricks and Techniques That Will Have You Performing in Seconds Tricks to Pick Up Chicks: Magic Tricks, Lines, Bets, Scams and Psychology Magic Tricks - 50 Simple, Fun and Quick Tricks Book (How To Be the Life of the Party) Error Correcting Codes: A Mathematical Introduction (Chapman Hall/CRC Mathematics Series) Mathematical Physics of Quantum Wires and Devices: From Spectral Resonances to Anderson Localization (Mathematics and Its Applications) An Introduction to Mathematical Cryptography (Undergraduate Texts in Mathematics) The Magical City: A Colouring Book (Magical Colouring Books for Adults) The Magical Christmas: A Colouring Book (Magical Colouring Books for Adults) Magical Animals Coloring Book: Magical Designs (Doodle Art Alley Books) (Volume 4) The Everything Kids' Magical Science Experiments Book: Dazzle your friends and family by making magical things happen! The Magical Rocking Horse: Adventures of the Magical Rocking Horse, Book 1 Self-Working Handkerchief Magic: 61 Foolproof Tricks (Dover Magic Books)