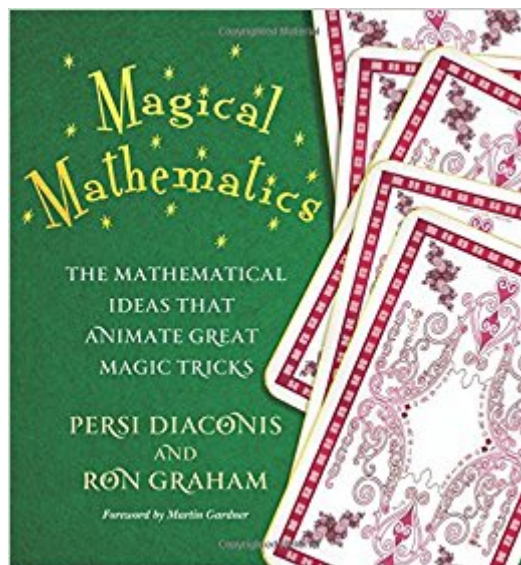The book was found

Magical Mathematics: The Mathematical Ideas That Animate Great Magic Tricks

Synopsis

Magical Mathematics reveals the secrets of fun-to-perform card tricksÃ¢â ¬â ¢and the profound mathematical ideas behind themÃ¢â ¬â ¢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 storiesÃ¢â ¬â ¢and reveal the best tricksÃ¢â ¬â ¢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 trickÃ¢â ¬â ¢and much more.

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Customer Reviews

Winner of the 2013 Euler Book Prize, Mathematical Association of AmericaHonorable Mention for the 2012 Award for Best Professional/Scholarly Book in Popular Science & Popular Mathematics, Association of American Publishers"[F]ascinating. . . . Magical Mathematics [is] a dazzling tour of math-based magic tricks. . . . Lovers of recreational mathematics, and especially fans of the late Martin Gardner, who contributed the foreword, will find many pleasures in Magical Mathematics. And while exposing magic secrets in a book intended for the general public may raise hackles among some old-guard magicians, exploring the math behind these tricks will, in truth, only deepen

the mystery. For, as the authors remind us, sometimes the methods are as magical as the tricks themselves."--Alex Stone, Wall Street Journal"The Riemann hypothesis, the Mandelbrot set, Fermat's last theorem--these mathematical notions and others underlie all manner of magic tricks. Mathematicians Persi Diaconis--also a card magician--and Ron Graham--also a juggler--unveil the connections between magic and math in this well-illustrated volume."--Scientific American"Writing for the public, the two authors share their passions, teaching sophisticated mathematical concepts along with interesting card tricks, which rely upon those principles for their workings."--GENII: The Conjurors' Magazine"[I]t is simply a beautiful book. The design, layout, typography, even the paper is beautiful. . . . [T]his is one of the most fun, engaging new popular mathematics books I've seen in a long time."--The Math Less Traveled Blog"The authors are master storytellers. . . . [T]he authors offer advice and recommendations for further pursuits in mathematics, magic and juggling."--Cut-the-Knot blog"Well known and highly respected in the mathematical community, Diaconis and Graham have produced a work that completely lives up to expectations. It contains descriptions of magic tricks as viewed by an audience, the mathematics that make them possible, and clear explanations to help you--with a little practice--amaze your friends."--Library Journal"Magical Mathematics gives readers a peek behind the velvet curtain that hides the magician's secrets. . . . The book covers some nifty card tricks, juggling, codes and a slew of mind-bending puzzles. The book doesn't just tell you how to fool and impress your friends with parlour tricks, it explains why these tricks work, so that you can go on to devise your own--in fact, the authors challenge you to do just that. The writing is lively and the tricks are well set-up, providing newbie magicians with both points of view: what the audience sees and what the magician knows."--Montreal Gazette"Magical Mathematics is an absolutely remarkable book. I don't say this lightly. Publishers send me plenty of books to review. Some I like more than others. Magical Mathematics is a fantastic book for someone who wants to explore the non-trivial math behind some impressive magic tricks. While I enjoy purely recreational math puzzles that have no practical application I also love it when I discover challenges that are interesting and relevant. Magical Mathematics is chock full of fun (and deep) challenges that students (and adults) can sink their teeth into."--Wild About Math blog"Over 12 chapters, the reader is taken on a unique and wonderful tour that fuses magical tricks with underlying mathematical explanations and personal stories, written by world-renowned experts in both fields. With its friendly, disarming style, the book is pitched perfectly at a level that will surprise both the hardened mathematical researcher and the interested general reader, without putting either of them off. . . . [T]his book is a must-buy."--C.J. Howls, Times Higher Education Supplement"The first chapter of this book begins by teaching a simple four-card trick and

ends by presenting--complete with step-by-step color illustrations--a more complicated card trick that will truly amaze any audience. Both tricks are based on mathematical principles, and the book goes on to explain these and many other principles that can be the basis for a variety of clever magic tricks."--Games magazine"Learn the secrets behind card tricks, including step-by-step instructions for performing them, along with the mathematical ideas the tricks illustrate."--Science News"As magic books go, Magical Mathematics is erudite, thought provoking, inspiring. . . . It is the product of multiple decades of work and research, and for a small subset of magic enthusiasts it could rank as the best book they buy this decade."--James Alan, Magicol"There is so much to digest in this book that it is impossible to describe even a fraction of it in just a few paragraphs. Let it suffice to say that if you are at all interested in card magic principles, how they work, why they work, and the history behind them, to ignore this book would be a serious mistake."--Peter Duffie, Magic magazine"From arcane theories to practical tips for working magicians, the authors go behind the curtain and reveal how the pros do it."--San Jose Mercury News"The connection between magic and mathematics has a long and intriguing history, and throughout their book Diaconis and Graham present detailed and fascinating insight into that history. . . . Overall, the book is a wonderful introduction to this esoteric area, but has more than enough depth to entertain and enlighten the knowledgeable. Perhaps most important of all, it shows how deconstructing illusion can provide fascinating insight in the nature of reality."--Richard Wiseman, Nature Physics"Magical Mathematics strikes a nice balance between descriptions of performable magic tricks and the mathematics that makes them work. Unlike some 'mathemagic' books, in this work, Diaconis and Graham describe magic tricks that are actually used by professionals. . . . [T]he writing is engaging, and learning the tricks that are presented is well worth the effort. . . . This volume should find a place in any mathematics or magic library collection."--Choice"While turning the last pages, the reader is bound to feel touched and charged up and would definitely be moving in an altered direction, for this is a book that will not just leave an impression, but will also suggest which path to take next."--Shubashree Desikan, Current Science"Reading Magical Mathematics . . . had . . . [a] powerful effect on me. I was transported to a strange and shadowy world of card tricks and magic that, at the same time, was miraculously a land of mathematics, a land with substance. . . . Barely ten pages into the book I am completely hooked."--John J Watkins, Mathematical Reviews"The authors have produced an invaluable contribution to the fascinating relationship between magic and mathematics. . . . The authors exhibit a lifelong passion, enthusiasm and deep knowledge for magic and mathematics and this is an ideal combination for producing a great read. . . . I highly recommend it to anybody interested in the mathematics behind some impressive magic."--Fiacre O.

Cairbre, Irish Mathematical Society Bulletin"Mathematical Magic is a truly magical book, containing ample amounts of mathematics and magic that will amaze and amuse. Diaconis and Graham are both first-rate mathematicians and performers and offer insights and ideas that could not have been expressed by anyone else. This book is destined to be a classic on the subject."--Arthur Benjamin, SIAM"This is a splendid book with lots of wonderful insights. . . . Give this book a try; you certainly will not be disappointed."--Phil Dyke, Leonardo Reviews"While there are other books out there detailing the relationship between mathematics and magic, this book is perhaps the best written of them all, as it will appeal to magicians, math buffs and general readers alike."--R. S. Beer, MagicBookReviews.com

"Finally a book that celebrates the math involved in magic. This is quite simply the most brilliant book ever written on this mind-blowing, highly secretive field."--David Blaine, illusionist"A remarkably appealing concoction of conjuring, invention, education, science, homage, and memoir--it is like no other book in the long history of magic."--Ricky Jay, author, actor, and one of the world's best sleight-of-hand artists"A truly stunning exposition by two masters in the field. Diaconis and Graham trace the fascinating relationship between mathematics and magic, which goes back at least eight hundred years. Nothing like this has been published before. Magical Mathematics is a huge contribution both to magic and mathematics."--Colm Mulcahy, author of Card Colm, an online column hosted by the Mathematical Association of America"Magical Mathematics is a truly magical book, containing ample amounts of mathematics and magic that will amaze and amuse. Diaconis and Graham are both first-rate mathematicians and performers, and offer insights and ideas that could not have been expressed by anyone else. This book is destined to be a classic on the subject."--Arthur Benjamin, coauthor of Secrets of Mental Math: The Mathemagician's Guide to Lightning Calculation and Amazing Math Tricks"This is a wonderful book, unique and engaging. Diaconis and Graham manage to convey the awe and marvels of mathematics, and of magic tricks, especially those that depend fundamentally on mathematical ideas. They range over many delicious topics, giving us an enchanting personal view of the history and practice of magic, of mathematics, and of the fascinating connection between the two cultures. Magical Mathematics will have an utterly devoted readership."--Barry Mazur, author of Imagining Numbers: (particularly the square root of minus fifteen)"Magical Mathematics is a wonder to behold. It instantly seduces the reader with goodies new and old, and is just as perfect for long-term study. There are also surprises for those well familiar with the magical realm."--Robert E. Neale, magician --This text refers to an out of print or unavailable edition of this title.

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!

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.

Fun and interesting. Light and also serious. If you like math you'll enjoy this book. The book wanders in the later chapters but starts with fun magic and math. The book raises and partially explains some lesser known mathematical theory while using the properties to explain magic tricks. The magic tricks described are real and can be done by anyone - once revealed. Though an engineer and a math-o-phile I had to work more than expected on some of the concepts with which I was unfamiliar. You might not understand it all, but you will enjoy reading it, and you'll have a few parlor tricks for your next party.

Well written. If you like math and magic, this is for you. Just wonderful, VERY engaging tricks for the amateur magician. Not written in such a dumbed down level as to bore you, but also doesn't overly write the tricks so they are hard to understand. Perfectly written with some illustrations to capture your attention.Probably would rate this a 9 out of 10.

three really great tricks in the first few pages make the book worth getting. However it rapidly turns into a mathematical jumble of numbers that only a mathematician would appreciate or understand. Way, way over my head!

This is not a regular mathematics based self working tricks book. This book involves some really interesting and even challenging mathematical principles that actually requires you to think to understand, and of course, the tricks based on these principles are just awesome. Highly recommended.

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.

Too complicated. Not what I expected.

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