The Mathematics of Various Entertaining Subjects: Research in Recreational Math

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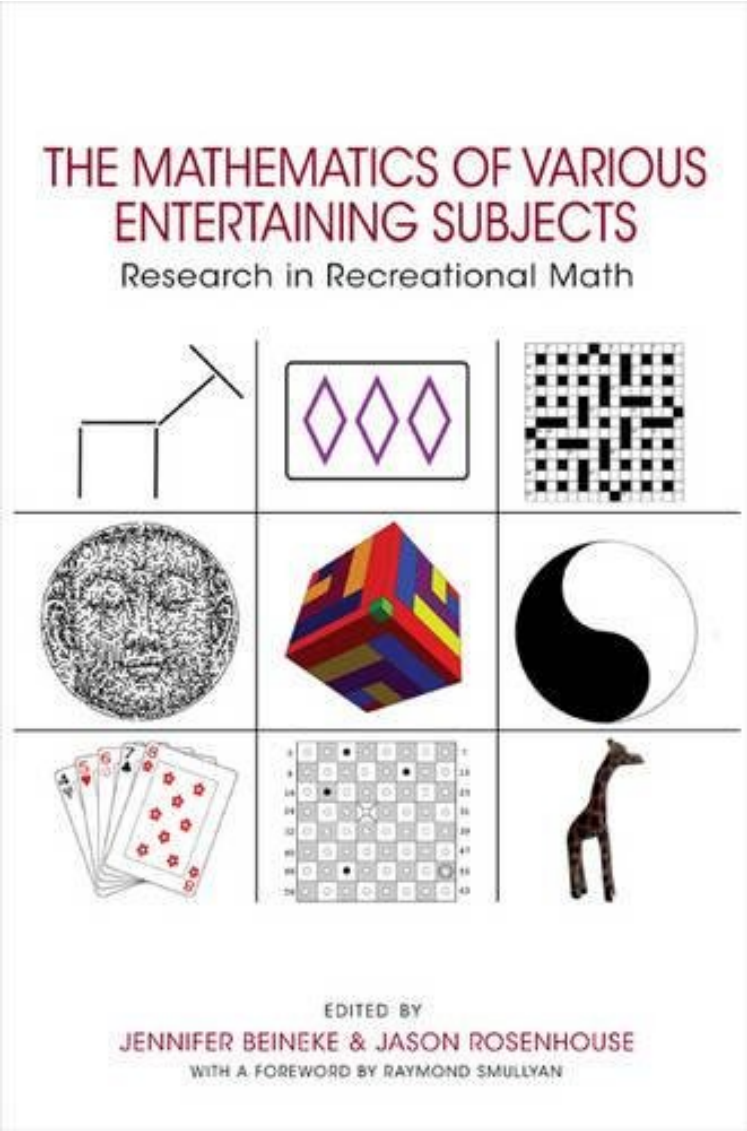

#639942 in Books 2015-12-29Original language:EnglishPDF # 1 9.30 x 1.00 x 6.10l, .0 #File Name: 0691164037288 pages | File size: 56.Mb

From Princeton University Press : The Mathematics of Various Entertaining Subjects: Research in Recreational Math before purchasing it in order to gage whether or not it would be worth my time, and all praised The Mathematics of Various Entertaining Subjects: Research in Recreational Math:

10 of 10 people found the following review helpful. Highly stimulating and rigorous, yet entertaining book on recreational mathematicsBy Ben RothkeRecreational mathematics as defined by Wikipedia is a term for mathematics

carried out for recreation (entertainment) rather than as a strictly research and application-based professional activity, although it is not necessarily limited to being an endeavor for amateurs. It often involves mathematical puzzles and games.Perhaps the greatest proponent of recreational mathematics was Martin Gardner, with his Mathematical Games column than ran in Scientific American from 1956 to 1986. The entire collection of Gardner's columns is available on CD-ROM.In The Mathematics of Various Entertaining Subjects: Research in Recreational Math, editors Jennifer Beineke Jason Rosenhouse have gathered 17 chapters on various entertaining subjects.The use of recreational math here is meant for those with a very strong math background. While chapters such as Minimalist Approaches to Figurative Maze Design, Solving the Tower of Hanoi with Random Moves and Groups Associated to Tetraflexagons (folded flexagons) will challenge most readers. Advanced chapters such as From the Outside In: Solving Generalizations of the Slothouber-Graatsma-Conway Puzzle, An Introduction to Gilbreath Numbers and Representing Numbers Using Fibonacci Variants requires the reader to have a strong background in academic mathematics.While not directly an information security title, The Mathematics of Various Entertaining Subjects will stimulate and entertain those looking for a highly rigorous book of recreational mathematics to challenge their mind.3 of 3 people found the following review helpful. This is the kind of book you will love if as you are readingBy CustomerThis is the kind of book you will love if as you are reading, you like to pause and try what is being spoken about, but be warned: if you enjoy mathematics, you may have a hard time getting back to the book to continue on! This gives you a chance to discover and learn at the same time while you expand your math knowledge and skills. You will need some ability at math, better than high school.It tackles things with such depth, even things that you are familiar with and have read about before, but expanded the horizon past the edge will leave you thinking what else is still to be discovered.I am not sure about the other post left here by Ben Rothke, stating the definition about 'recreational mathematics is carried out for recreation.' Whereas this may be true, it doesn't just stop there, I mean, some of the best discoveries happen because of fooling around with a matter that may start as recreational, but results with solutions that enlarge our understanding purely by accident.If you enjoy mathematics and can't resist a good puzzle without giving it a try, this is the book for you.

The history of mathematics is filled with major breakthroughs resulting from solutions to recreational problems. Problems of interest to gamblers led to the modern theory of probability, for example, and surreal numbers were inspired by the game of Go. Yet even with such groundbreaking findings and a wealth of popular-level books exploring puzzles and brainteasers, research in recreational mathematics has often been neglected. The Mathematics of Various Entertaining Subjects brings together authors from a variety of specialties to present fascinating problems and solutions in recreational mathematics.Contributors to the book show how sophisticated mathematics can help construct mazes that look like famous people, how the analysis of crossword puzzles has much in common with understanding epidemics, and how the theory of electrical circuits is useful in understanding the classic Towers of Hanoi puzzle. The card game SET is related to the theory of error-correcting codes, and simple tic-tac-toe takes on a new life when played on an affine plane. Inspirations for the book's wealth of problems include board games, card tricks, fake coins, flexagons, pencil puzzles, poker, and so much more.Looking at a plethora of eclectic games and puzzles, The Mathematics of Various Entertaining Subjects is sure to entertain, challenge, and inspire academic mathematicians and avid math enthusiasts alike.

One of Choice's Outstanding Academic Titles for 2016"Beineke and Rosenhouse have compiled and edited a fantastic collection of essays dealing with popular mathematics. . . . Anybody who enjoys reading about recreation mathematics should definitely explore these writings."--ChoiceFrom the Back Cover"This book is a fascinating treasure trove of puzzles, brain teasers, and mathematical recreations that will keep your mind busy for months, if not years. A true gem that is destined to become a classic."--Eli Maor, author of e: The Story of a Number"As enticing as a Rubiks Cube, this rigorous and inviting book is a treat to the eyes and mind. The list of contributors is an all-star lineup ready to welcome you into their mathematical rec rooms. Pull up a chair and grab a friend, its time to be entertained with various mathematical subjects."--Tim Chartier, Davidson College"This entertaining yet rigorous book of recreational mathematical masterpieces presents centuries-old puzzles and new inventions that illustrate the continuing allure of recreational mathematics. The contributions are up-to-date, well illustrated, and startle with unexpected connections. Lay readers and connoisseurs will find imaginative and instructive delights."--Mircea Pitici, editor of The Best Writing on Mathematics"A pleasure to read, this inviting book spans the broad range of topics in recreational mathematics, and the contributors are well-respected names in the field. Probability calculations, Fibonacci numbers, continued fractions, card tricks, strategies in games, and coin-weighing problems are all included, and in ways that reinforce each other."--Philip Straffin, professor emeritus of mathematics, Beloit College"The Mathematics of Various Entertaining Subjects provides a plethora of elegant and surprising mathematical results that were originally motivated by, or found applications in, games and puzzles. The diverse questions, engaging work, and novel, often beautiful solutions make this book an excellent survey and introduction to this kind of analysis."--David Neel, Seattle UniversityAbout the AuthorJennifer Beineke is professor of mathematics at Western New England University. Jason Rosenhouse is

professor of mathematics at James Madison University. He is the author of The Monty Hall Problem and the coauthor of Taking Sudoku Seriously.