Basic Gambling Mathematics The Numbers Behind The Neon

Coming Home To Math: Become Comfortable With The Numbers That Rule Your Life
The Mathematics of Gambling
The Theory of Gambling and Statistical Logic, Revised Edition
Luck, Logic, and White Lies
The Mathematics of Games
Blackjack, Baccarat, Craps, & Roulette
Understanding and Calculating the Odds
Beat the Casinos at Their Own Games!
The Theory of Gambling and Statistical Logic
Mathematics of The Big Four Casino Table Games
Probability Theory Basics and Calculus Guide for Beginners, with Applications in Games of Chance and Everyday Life
The Mathematics of Dice, Slots, Roulette, Baccarat, Blackjack, Poker, Lottery and Sport Bets
Getting the Best of It
The Mathematics of Complex Bets
Computers, Gambling, and Mathematical Modeling to Win
Tips & Tools for Measuring the World and Beating the Odds
The Quants
Texas Hold'em Odds
The Games People Play, Second Edition
An Introduction to Mathematics
Beat the Dealer
Mathletics
A Surprising Excursion Through the Astonishing World of Math
Games, Gambling, and Probability
An Introduction to Probability
How I Turned the Odds Upside Down---My Wild Twenty-Five-Year Ride Ripping Off the World's Casinos
American Casino Guide
How to Gamble If You Must
Mathematics in Games, Sports, and Gambling
Mathematics of Keno and Lotteries
Blackjack, Baccarat, Craps, & Roulette
Inequalities for Stochastic Processes
Here's Looking at Euclid
Mathematics of Casino Carnival Games
Casino Security and Gaming Surveillance
The Book of Proposition Bets
Using Mathematics to Reveal the Odds of Friendly (and Not-So-Friendly) Wagers
Mathematics of Keno and Lotteries

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Coming Home To Math: Become Comfortable With The Numbers That Rule Your Life CRC Press
Mathematics in Games, Sports, and Gambling: The Games People Play, Second Edition demonstrates how discrete probability, statistics, and elementary discrete mathematics are used in games, sports, and gambling situations. With emphasis on mathematical thinking and problem solving, the text draws on numerous examples, questions, and problems to explain the application of mathematical theory to various real-life games. This updated edition of a widely adopted textbook considers a number of popular games and diversions that are mathematically based or can be studied from a mathematical perspective. Requiring only high school algebra, the book is suitable for use as a textbook in seminars, general education courses, or as a supplement in introductory probability courses. New in this Edition: Many new exercises, including basic skills exercises More answers in the back of the book Expanded summary exercises, including writing exercises More detailed examples, especially in the early chapters An expansion of the discrete adjustment technique for binomial approximation problems New sections on chessboard puzzles that encourage students to develop graph theory ideas New review material on relations and functions Exercises are included in each section to help students understand the various concepts. The text covers permutations in the two-deck matching game so derangements can be counted. It introduces graphs to find matches when looking at extensions of the five-card trick and studies lexicographic orderings and ideas of encoding for card tricks. The text also explores linear and weighted equations in the section on the NFL passer rating formula and presents graphing to show how data can be compared or displayed. For each topic, the author includes exercises based on real games and actual sports data.
The Mathematics of Gambling CRC Press
Early in his rise to enlightenment, man invented a concept that has since been variously viewed as a vice, a crime, a business, a pleasure, a type of magic, a disease, a folly, a weakness, a form of sexual substitution, an expression of the human instinct. He invented gambling. Recent advances in the field, particularly Parrondo's paradox, have triggered a surge of interest in the statistical and mathematical theory behind gambling. This interest was acknowledge in the motion picture, "21," inspired by the true story of the MIT students who mastered the art of card counting to reap millions from the Vegas casinos. Richard Epstein's classic book on gambling and its mathematical analysis covers the full range of games from penny matching to blackjack, from Tic-Tac-Toe to the stock market (including Edward Thorp's warrant-hedging analysis). He even considers whether statistical inference can shed light on the study of paranormal phenomena. Epstein is witty and insightful, a pleasure to dip into and read and rewarding to study. The book is written at a fairly sophisticated mathematical level; this is not "Gambling for Dummies" or "How To Beat The Odds Without Really Trying." A background in upper-level undergraduate mathematics is helpful for understanding this work. o Comprehensive and exciting analysis of all major casino games and variants o Covers a wide range of interesting topics not covered in other books on the subject o Depth and breadth of its material is unique compared to other books of this nature Richard Epstein's website: www.gamblingtheory.net
The Theory of Gambling and Statistical Logic, Revised Edition CRC Press
The Mathematics of Games: An Introduction to Probability takes an inquiry-based approach to teaching the standard material for an introductory probability course. It also discusses different games and ideas that relate to the law of large numbers, as well as some more mathematical topics not typically found in similar books. Written in an accessibl
Luck, Logic, and White Lies CRC Press
A professional gambler offers his secrets for winning at all major casino games, with tips on betting strategies, successful money management, and self-control under pressure. 64 illustrations.
The Mathematics of Games Frederick Fell Publishers
Continuing his series of books on the mathematics of gambling, the author shows how a simple-rule game such as roulette is suited to a complex mathematical model whose applications generate improved betting systems that take into account a player's personal playing criteria. The book is both practical and theoretical, but is mainly devoted to the application of theory. About two-thirds of the content is lists of categories and sub-categories of improved betting systems, along with all the parameters that might stand as the main objective criteria in a personal strategy - odds, profits and losses. The work contains new and original material not published before. The mathematical chapter describes complex bets, the profit function, the equivalence between bets and all their properties. All theoretical results are accompanied by suggestive concrete examples and can be followed by anyone with a minimal mathematical background because they involve only basic algebraic skills and set theory basics. The reader may also choose to skip the math and go directly to the sections containing applications, where he or she can pick desired numerical results from tables. The book offers no new so-called winning strategies, although it discusses them from a mathematical point of view. It does, however, offer improved betting systems and helps to organize a player's choices in roulette betting, according to mathematical facts and personal strategies. It is a must-have roulette handbook to be studied before placing your bets on the turn of either a European or American roulette wheel.
Blackjack, Baccarat, Craps, & Roulette Princeton University Press
Want to calculate the probability that an event will happen? Be able to spot fake data? Prove beyond doubt whether one thing causes another? Or learn to be a better gambler? You can do that and much more with 75 practical and fun hacks packed into Statistics Hacks. These cool tips, tricks, and mind-boggling solutions from the world of statistics, measurement, and research methods will not only amaze and entertain you, but will give you an advantage in several real-world situations-including business. This book is ideal for anyone who likes puzzles, brainteasers, games, gambling, magic tricks, and those who want to apply math and science to everyday circumstances. Several hacks in the first chapter alone-such as the "central limit theorem,", which allows you to know everything by knowing just a little-serve as sound approaches for marketing and other business

objectives. Using the tools of inferential statistics, you can understand the way probability works, discover relationships, predict events with uncanny accuracy, and even make a little money with a well-placed wager here and there. Statistics Hacks presents useful techniques from statistics, educational and psychological measurement, and experimental research to help you solve a variety of problems in business, games, and life. You'll learn how to: Play smart when you play Texas Hold 'Em, blackjack, roulette, dice games, or even the lottery Design your own winnable bar bets to make money and amaze your friends Predict the outcomes of baseball games, know when to "go for two" in football, and anticipate the winners of other sporting events with surprising accuracy Demystify amazing coincidences and distinguish the truly random from the only seemingly random--even keep your iPod's "random" shuffle honest Spot fraudulent data, detect plagiarism, and break codes How to isolate the effects of observation on the thing observed Whether you're a statistics enthusiast who does calculations in your sleep or a civilian who is entertained by clever solutions to interesting problems, Statistics Hacks has tools to give you an edge over the world's slim odds.

Understanding and Calculating the Odds Triumph Books

Praise for the First Edition "Luck, Logic, and White Lies teaches readers of all backgrounds about the insight mathematical knowledge can bring and is highly recommended reading among avid game players, both to better understand the game itself and to improve one’s skills." – Midwest Book Review "The best book I've found for someone new to game math is Luck, Logic and White Lies by Jörg Bewersdorff. It introduces the reader to a vast mathematical literature, and does so in an enormously clear manner. . ." – Alfred Wallace, Musings, Ramblings, and Things Left Unsaid "The aim is to introduce the mathematics that will allow analysis of the problem or game. This is done in gentle stages, from chapter to chapter, so as to reach as broad an audience as possible . . . Anyone who likes games and has a taste for analytical thinking will enjoy this book." – Peter Fillmore, CMS Notes Luck, Logic, and White Lies: The Mathematics of Games, Second Edition considers a specific problem—generally a game or game fragment and introduces the related mathematical methods. It contains a section on the historical development of the theories of games of chance, and combinatorial and strategic games. This new edition features new and much refreshed chapters, including an all-new Part IV on the problem of how to measure skill in games. Readers are also introduced to new references and techniques developed since the previous edition. Features Provides a uniquely historical perspective on the mathematical underpinnings of a comprehensive list of games Suitable for a broad audience of differing mathematical levels. Anyone with a passion for games, game theory, and mathematics will enjoy this book, whether they be students, academics, or game enthusiasts Covers a wide selection of topics at a level that can be appreciated on a historical, recreational, and mathematical level. Jörg Bewersdorff (1958) studied mathematics from 1975 to 1982 at the University of Bonn and earned his PhD in 1985. In the same year, he started his career as game developer and mathematician. He served as the general manager of the subsidiaries of Gauselmann AG for more than two decades where he developed electronic gaming machines, automatic payment machines, and coin-operated Internet terminals. Dr. Bewersdorff has authored several books on Galois theory (translated in English and Korean), mathematical statistics, and object-oriented programming with JavaScript.

Beat the Casinos at Their Own Games! INFAROM Publishing

Many experiments have shown the human brain generally has very serious problems dealing with probability and chance. A greater understanding of probability can help develop the intuition necessary to approach risk with the ability to make more informed (and better) decisions. The first four chapters offer the standard content for an introductory probability course, albeit presented in a much different way and order. The chapters afterward include some discussion of different games, different "ideas" that relate to the law of large numbers, and many more mathematical topics not typically seen in such a book. The use of games is meant to make the book (and course) feel like fun! Since many of the early games discussed are casino games, the study of those games, along with an understanding of the material in later chapters, should remind you that gambling is a bad idea; you should think of placing bets in a casino as paying for entertainment. Winning can, obviously, be a fun reward, but should not ever be expected. Changes for the Second Edition: New chapter on Game Theory New chapter on Sports Mathematics The chapter on Blackjack, which was Chapter 4 in the first edition, appears later in the book. Reorganization has been done to improve the flow of topics and learning. New sections on Arkham Horror, Uno, and Scrabble have been added. Even more exercises were added! The goal for this textbook is to complement the inquiry-based learning movement. In my mind, concepts and ideas will stick with the reader more when they are motivated in an interesting way. Here, we use questions about various games (not just casino games) to motivate the mathematics, and I would say that the writing emphasizes a "just-in-time" mathematics approach. Topics are presented mathematically as questions about the games themselves are posed. Table of Contents Preface 1. Mathematics and Probability 2. Roulette and Craps: Expected Value 3. Counting: Poker Hands 4. More Dice: Counting and Combinations, and Statistics 5. Game Theory: Poker Bluffing and Other Games 6. Probability/Stochastic Matrices: Board Game Movement 7. Sports Mathematics: Probability Meets Athletics 8. Blackjack: Previous Methods Revisited 9. A Mix of Other Games 10. Betting Systems: Can You Beat the System? 11. Potpourri: Assorted Adventures in Probability Appendices Tables Answers and Selected Solutions Bibliography Biography Dr. David G. Taylor is a professor of mathematics and an associate dean for academic affairs at Roanoke College in southwest Virginia. He attended Lebanon Valley College for his B.S. in computer science and mathematics and went to the University of Virginia for his Ph.D. While his graduate school focus was on studying infinite dimensional Lie algebras, he started studying the mathematics of various games in order to have a more undergraduate-friendly research agenda. Work done with two Roanoke College students, Heather Cook and Jonathan Marino, appears in this book! Currently he owns over 100 different board games and enjoys using probability in his decision-making while playing most of those games. In his spare time, he enjoys reading, cooking, coding, playing his board games, and spending time with his six-year-old dog Lilly.

The Theory of Gambling and Statistical Logic CRC Press

This book presents not only the mathematical concept of probability, but also its philosophical aspects, the relativity of probability and its applications and even the psychology of probability. All explanations are made in a comprehensible manner and are supported with suggestive examples from nature and daily life, and even with challenging math paradoxes. (Mathematics)

Mathematics of The Big Four Casino Table Games "O'Reilly Media, Inc."

Almost all incidences of cheating, theft, fraud, or loss can be detected through the surveillance of

critical transactions, audit observations, and reviews of key metrics. Providing proven-techniques for detecting and mitigating the ever-evolving threats to casino security, this book covers the core skills, knowledge, and techniques needed to protect casino assets, guests, and employees. Drawing on the authors' six decades of combined experience in the industry, Casino Security and Gaming Surveillance identifies the most common threats to casino security and provides specific solutions for addressing these threats. From physical security and security management to table and gaming surveillance, it details numerous best practice techniques, strategies, and tactics, in addition to the metrics required to effectively monitor operations. The authors highlight valuable investigation tools, including interview techniques and evidence gathering. They also cover IOU patrol, tri-shot coverage, surveillance audits, threat analysis, card counting, game protection techniques, players' club theft and fraud, surveillance standard operating procedures, nightclub and bar security, as well as surveillance training. Complete with a glossary of gaming terms and a resource-rich appendix that includes helpful forms, this book covers everything surveillance and security professionals need to know to avoid high-profile incidents, costly compliance violations and damage to property and revenue. It's professionals like Al and Derk who personify the professionalism that is crucial when establishing and operating modern casino security and surveillance departments. This book will quickly become the Bible for any security and surveillance officer. —Roger Gros, Publisher, Global Gaming Business Magazine

Probability Theory Basics and Calculus Guide for Beginners, with Applications in Games of Chance and Everyday Life Academic Press

Mathematics is the basis of casino games, which are the bedrock of a $100 billion/year industry. Mathematics of the Big Four Casino Table Games: Blackjack, Baccarat, Craps, & Roulette takes an in-depth look at the four biggest table games in casinos: blackjack, baccarat, craps, and roulette. It guides readers through the mathematical principles that underpin these games and their different variations, providing insights that will be of huge interest to gamblers, casino managers, researchers, and students of mathematics. Features A valuable teaching resource, replete with exercises, for any course on gambling mathematics Suitable for a wide audience of professionals, researchers, and students Many practical applications for the gambling industry Mark Bollman is Professor of Mathematics and chair of the Department of Mathematics & Computer Science at Albion College in Albion, Michigan, and has taught 116 different courses in his career. Among these courses is "Mathematics of the Gaming Industry," where mathematics majors carefully study the math behind games of chance and travel to Las Vegas, Nevada, in order to compare theory and practice. He has also taken those ideas into Albion's Honors Program in "Great Issues in Humanities: Perspectives on Gambling," which considers gambling from literary, philosophical, and historical points of view as well as mathematically. Mark has also authored Basic Gambling Mathematics: The Numbers Behind the Neon, Mathematics of Keno and Lotteries, and Mathematics of Casino Carnival Games.

The Mathematics of Dice, Slots, Roulette, Baccarat, Blackjack, Poker, Lottery and Sport Bets World Scientific

This classic of advanced statistics is geared toward graduate-level readers and uses the concepts of gambling to develop important ideas in probability theory. The authors have distilled the essence of many years' research into a dozen concise chapters. "Strongly recommended" by the Journal of the American Statistical Association upon its initial publication, this revised and updated edition features contributions from two well-known statisticians that include a new Preface, updated references, and findings from recent research. Following an introductory chapter, the book formulates the gambler's problem and discusses gambling strategies. Succeeding chapters explore the properties associated with casinos and certain measures of subfairness. Concluding chapters relate the scope of the gambler's problems to more general mathematical ideas, including dynamic programming, Bayesian statistics, and stochastic processes. Dover (2014) revised and updated republication of the 1976 Dover edition entitled Inequalities for Stochastic Processes. See every Dover book in print at www.doverpublications.com

Getting the Best of It Vintage

In American Roulette, Richard Marcus tells his never-before-heard story, of ripping off casinos. The book follows Marcus, along with several of the world's great professional casino cheaters, as he travels from Las Vegas to London and Monte Carlo, pilfering large sums of money from casinos by performing sleight of hand magic tricks with gaming chips. As skilled cheaters, they back up their moves with psychological setups to convince pit bosses that they're watching legitimate high rollers getting lucky, while in fact they're being ripped off blind. With the exploding growth of casino gambling, heightened by Indian reservation and riverboat expansion, more and more elaborate casino cheaters are illegally assaulting the green-felt, getting rich off of novice casino personnel. Richard Marcus's insider story is a window into the hidden world of intriguing personalities and tense situations he encounters as a member of expert casino-cheating teams who use their wits to turn the odds upside down and "earn" millions. American Roulette is a fascinating story not only for those who occasionally casino-gamble, but for everyone with a little larceny in their heart.

The Mathematics of Complex Bets Basic Gambling MathematicsThe Numbers Behind The Neon Reprint. Originally published: New York: Vintage Books, 1966.

Computers, Gambling, and Mathematical Modeling to Win Cambridge University Press

[Man] invented a concept that has since been variously viewed as a vice, a crime, a business, a pleasure, a type of magic, a disease, a folly, a weakness, a form of sexual substitution, an expression of the human instinct. He invented gambling. Richard Epstein's classic book on gambling and its mathematical analysis covers the full range of games from penny matching, to blackjack and other casino games, to the stock market (including Black-Scholes analysis). He even considers what light statistical inference can shed on the study of paranormal phenomena. Epstein is witty and insightful, a pleasure to dip into and read and rewarding to study.

Tips & Tools for Measuring the World and Beating the Odds Casino Vacations Press

Listing more than 700 casinos in 36 states, this bestselling guide is jam-packed with detailed information and includes 150 coupons providing more than $1,000 in savings. Consumable.

The Quants CRC Press

This text is designed for an introductory probability course at the university level for sophomores, juniors, and seniors in mathematics, physical and social sciences, engineering, and computer science. It presents a thorough treatment of ideas and techniques necessary for a firm understanding of the subject. The text is also recommended for use in discrete probability courses.

The material is organized so that the discrete and continuous probability discussions are presented in a separate, but parallel, manner. This organization does not emphasize an overly rigorous or formal view of probability and therefore offers some strong pedagogical value. Hence, the discrete discussions can sometimes serve to motivate the more abstract continuous probability discussions. Features: Key ideas are developed in a somewhat leisurely style, providing a variety of interesting applications to probability and showing some nonintuitive ideas. Over 600 exercises provide the opportunity for practicing skills and developing a sound understanding of ideas. Numerous historical comments deal with the development of discrete probability. The text includes many computer programs that illustrate the algorithms or the methods of computation for important problems. The book is a beautiful introduction to probability theory at the beginning level. The book contains a lot of examples and an easy development of theory without any sacrifice of rigor, keeping the abstraction to a minimal level. It is indeed a valuable addition to the study of probability theory. -- Zentralblatt MATH

Texas Hold'em Odds Cengage Learning

The new edition of a favourite, featuring fresh material such as betting in sport and bluffing in poker.

The Games People Play, Second Edition Lyle Stuart

There are thousands of books relating to poker, blackjack, roulette and baccarat, including strategy guides, statistical analysis, psychological studies, and much more. However, there are no books on Pell, Rouleno, Street Dice, and many other games that have had a short life in casinos! While this is understandable — most casino gamblers have not heard of these games, and no one is currently playing them — their absence from published works means that some interesting mathematics and gaming history are at risk of being lost forever. Table games other than baccarat, blackjack, craps, and roulette are called carnival games, as a nod to their origin in actual traveling or seasonal carnivals. Mathematics of Casino Carnival Games is a focused look at these games and the mathematics at their foundation. Features • Exercises, with solutions, are included for readers who wish to practice the ideas presented • Suitable for a general audience with an interest in the mathematics of gambling and games • Goes beyond providing practical ‘tips’ for gamblers, and explores the mathematical principles that underpin gambling games

An Introduction to Mathematics CRC Press

Mathematics is the basis of casino games, which are the bedrock of a $100 billion/year industry. Mathematics of the Big Four Casino Table Games: Blackjack, Baccarat, Craps, & Roulette takes an in-depth look at the four biggest table games in casinos: blackjack, baccarat, craps, and roulette. It guides readers through the mathematical principles that underpin these games and their different variations, providing insights that will be of huge interest to gamblers, casino managers, researchers, and students of mathematics. Features A valuable teaching resource, replete with exercises, for any course on gambling mathematics Suitable for a wide audience of professionals, researchers, and students Many practical applications for the gambling industry Mark Bollman is Professor of Mathematics and chair of the Department of Mathematics & Computer Science at Albion College in Albion, Michigan, and has taught 116 different courses in his career. Among these courses is "Mathematics of the Gaming Industry," where mathematics majors carefully study the math behind games of chance and travel to Las Vegas, Nevada, in order to compare theory and practice. He has also taken those ideas into Albion’s Honors Program in "Great Issues in Humanities: Perspectives on Gambling," which considers gambling from literary, philosophical, and historical points of view as well as mathematically. Mark has also authored Basic Gambling Mathematics: The Numbers Behind the Neon, Mathematics of Keno and Lotteries, and Mathematics of Casino Carnival Games.