A Mathematician Reads The Newspaper John Allen Paulos

Based on the remarkable true story of G. H. Hardy and Srinivasa Ramanujan, and populated with such luminaries such as D. H. Lawrence, Bertrand Russell, and Ludwig Wittgenstein, The Indian Clerk takes this extraordinary slice of history and transforms it into an emotional and spellbinding story about the fragility of human connection and our need to find order in the world. A literary masterpiece, it appeared on four bestseller lists, including the Los Angeles Times, and received dazzling reviews from every major publication in the country.

John Allen Paulos cleverly scrutinizes the mathematical structures of jokes, puns, paradoxes, spoonerisms, riddles, and other forms of humor, drawing examples from such sources as Rabelais, Shakespeare, James Beattie, René Thom, Lewis Carroll, Arthur Koestler, W. C. Fields, and Woody Allen. "Jokes, paradoxes, riddles, and the art of non-sequitur are revealed with great perception and insight in this illuminating account of the relationship between humor and mathematics."—Joseph Williams, New York Times "'Leave your mind alone,' said a Thurber cartoon, and a really complete and convincing analysis of what humour is might spoil all jokes forever. This book avoids that danger. What it does. . .is describe broadly several kinds of mathematical theory and apply them to throw sidelights on how many kinds of jokes work."—New Scientist "Many scholars nowadays write seriously about the ludicrous. Some merely manage to be dull. A few—like Paulos—are brilliant in an odd endeavor."—Los Angeles Times Book Review

A mathematician's ten-year quest to tell Fibonacci's story In 2000, Keith Devlin set out to research the life and legacy of the medieval mathematician Leonardo of Pisa, popularly known as Fibonacci, whose book Liber abbaci, or the "Book of Calculation," introduced modern arithmetic to the Western world. Although most famous for the Fibonacci numbers—which, it so happens, he didn't discover—Fibonacci's greatest contribution was as an expositor of mathematical ideas at a level ordinary people could understand. Yet Fibonacci was forgotten after his death, and it was not until the 1960s that his true achievements were finally recognized. Drawing on the diary he kept of his quest, Devlin describes the false starts and disappointments, the unexpected turns, and the occasional lucky breaks he encountered in his search. Fibonacci helped to revive the West as the cradle of science, technology, and commerce, yet he vanished from the pages of history. This is Devlin's search to find him.

This text is intended for an honors calculus course or for an introduction to analysis. Involving rigorous analysis, computational dexterity, and a breadth of applications, it is ideal for undergraduate majors. This third edition includes corrections as well as some additional material. Some features of the text include: The text is completely self-contained and starts with the real number axioms; The integral is defined as the area under the graph, while the area is defined for every subset of the plane; There is a heavy emphasis on computational problems, from the high-school quadratic formula to the formula for the derivative of the zeta function at zero; There are applications from many parts of analysis, e.g., convexity, the Cantor set, continued fractions, the AGM, the theta and zeta functions, transcendental numbers, the Bessel and gamma functions, and many more; Traditionally transcendentally presented material, such as infinite products, the Bernoulli series, and the zeta functional equation, is developed over the reals; and There are 385 problems with all the solutions at the back of the text.

How to Play LOTTERIES, If You Must

One Hundred Twenty-One Days

Shape
No Free Lunch
A Novel
The Flip Side of Philosophy
The Power of Mathematical Thinking

How both logical and emotional reasoning can help us live better in our post-truth world In a world where fake news stories change election outcomes, has rationality become futile? In The Art of Logic in an Illogical World, Eugenia Cheng throws a lifeline to readers drowning in the illogic of contemporary life. Cheng is a mathematician, so she knows how to make an airtight argument. But even for her, logic sometimes falls prey to emotion, which is why she still fears flying and eats more cookies than she should. If a mathematician can't be logical, what are we to do? In this book, Cheng reveals the inner workings and limitations of logic, and explains why alogic -- for example, emotion -- is vital to how we think and communicate. Cheng shows us how to use logic and alogic together to navigate a world awash in bigotry, mansplaining, and manipulative memes. Insightful, useful, and funny, this essential book is for anyone who wants to think more clearly.

- Brian Butterworth, author of What Counts: How Every Brain is Hardwired for Math.

"Audin plays with codes, numbers and dates to create a fascinating and unsettling story."—Le Temps This debut novel by mathematician and Oulipo member Michèle Audin retraces the lives of French mathematicians over several generations through World Wars I and II. The narrative oscillates stylistically from chapter to chapter—at times a novel, fable, historical research, or a diary—locking and unlocking codes, culminating in a captivating, original reading experience. Michèle Audin is the author of several works of mathematical theory and history and also published a work on her anticolonialist father's torture, disappearance, and execution by the French during the Battle of Algiers.

Paulos offers a hillarious account of how the stock market both follows and defies mathematical principals. He offers an enagaing overview of everything from "betas" to the efficient market hypothesis.

Introduction to Calculus and Classical Analysis
How Life Reflects Numbers and Numbers Reflect Life
Innumeracy
Thinking Like Your Editor: How to Write Great Serious Nonfiction and Get It Published
Why Specified Complexity Cannot Be Purchased Without Intelligence
I Think, Therefore I Laugh
The Little Numbers That Rule Our Lives

The cohost of NPR's On the Media narrates, in cartoon form, two millennia of the influence of the media on the populace, from newspapers in Caesar's Rome to the penny press of the American Revolution to today. 30,000 first printing.

Mathematical card effects offer both beginning and experienced magicians an opportunity to entertain with a minimum of props. Featuring mostly original creations, Mathematical Card Magic: Fifty-Two New Effects presents an entertaining look at new mathematically based card tricks. Each chapter contains four card effects, generally starting with simple applications of a particular mathematical principle and ending with more complex ones. Practice a handful of the introductory effects and, in no time, you'll establish your reputation as a "mathemagician." Delve a little deeper into each chapter and the mathematics gets more interesting. The author explains the mathematics as needed in an easy-to-follow way. He also provides additional details, background, and suggestions for further explorations. Suitable for recreational math buffs and amateur card lovers or as a text in a first-year seminar, this color book offers a diverse collection of new mathemagic principles and effects.

Essential Black History Reading The first-ever picture book biography of Carter G. Woodson, the Father of Black History Month Carter G. Woodson Book Award (Honor Book), NCSS Parents' Choice Silver Honor Award Chicago Public Library Best of the Best Book Top 10 Books for Kids ?New York Public Library Best Children's Books of the Year (Starred) ?Bank Street College of Education "An important and inspiring tale well told." ?Kirkus Reviews "Carter G. Woodson didn't just read history. He changed it." As the father of Black History Month, he spent his life introducing others to the history of his people. Carter G. Woodson was born to two formerly enslaved people ten years after the end of the Civil War. Though his father could not read, he believed in being an informed citizen, so Carter read the newspaper to him every day. As a teenager, Carter went to work in the coal mines, and there he met Oliver Jones, who did something important: he asked Carter not only to read to him and the other miners, but also research and find more information on the subjects that interested them. "My interest in penetrating the past of my people was deepened," Carter wrote. His journey would take him many more years, traveling around

the world and transforming the way people thought about history. From an award-winning team of author Deborah Hopkinson and illustrator Don Tate, this first-ever picture book biography of Carter G. Woodson emphasizes the importance of pursuing curiosity and encouraging a hunger for knowledge of stories and histories that have not been told. Illustrations also feature brief biological sketches of important figures from Black history.

The aim of this volume is to explain the differences between research-level mathematics and the maths taught at school. Most differences are philosophical and the first few chapters are about general aspects of mathematical thought.

Probabilities

A Companion to Undergraduate Mathematics

Counting: How We Use Numbers to Decide What Matters

The Art of Logic in an Illogical World

An Approachable Guide to Understanding Basic Concepts

Great Theories of 20th-Century Mathematics--and Why They Matter

Mathematics and Humor

In this lively volume, mathematician John Allen Paulos employs his singular wit to guide us through an unlikely mathematical jungle—the pages of the daily newspaper. From the Senate and sex to celebrities and cults, Paulos takes stories that may not seem to involve math at all and demonstrates how mathematical naïveté can put readers at a distinct disadvantage. Whether he's using chaos theory to puncture economic and environmental predictions, applying logic to clarify the hazards of spin doctoring and news compression, or employing arithmetic and common sense to give us a novel perspective on greed and relationships, Paulos never fails to entertain and enlighten.

An instant New York Times Bestseller! "Unreasonably entertaining. . . reveals how geometric thinking can allow for everything from fairer American elections to better pandemic planning." —The New York Times From the New York Times-bestselling author of How Not to Be Wrong—himself a world-class geometer—a far-ranging exploration of the power of geometry, which turns out to help us think better about practically everything. How should a democracy choose its representatives? How can you stop a pandemic from sweeping the world? How do computers learn to play Go, and why is learning Go so much easier for them than learning to read a sentence? Can ancient Greek proportions predict the stock market? (Sorry, no.) What should your kids learn in school if they really want to learn to think? All these are questions about geometry. For real. If you're like most people, geometry is a sterile and dimly remembered exercise you gladly left behind in the dust of ninth grade, along with your braces and active romantic interest in pop singers. If you recall any of it, it's plodding through a series of miniscule steps only to prove some fact about triangles that was obvious to you in the first place. That's not geometry. Okay, it is geometry, but only a tiny part, which has as much to do with

geometry in all its flush modern richness as conjugating a verb has to do with a great novel. Shape reveals the geometry underneath some of the most important scientific, political, and philosophical problems we face. Geometry asks: Where are things? Which things are near each other? How can you get from one thing to another thing? Those are important questions. The word "geometry" comes from the Greek for "measuring the world." If anything, that's an undersell. Geometry doesn't just measure the world—it explains it. Shape shows us how.

"This rich volume is a national treasure." —Kirkus Reviews (starred review) "Captivating, informative, and inspiring…Easy to follow and hard to put down." —School Library Journal (starred review) The inspiring autobiography of NASA mathematician Katherine Johnson, who helped launch Apollo 11. As a young girl, Katherine Johnson showed an exceptional aptitude for math. In school she quickly skipped ahead several grades and was soon studying complex equations with the support of a professor who saw great promise in her. But ability and opportunity did not always go hand in hand. As an African American and a girl growing up in an era of brutal racism and sexism, Katherine faced daily challenges. Still, she lived her life with her father's words in mind: "You are no better than anyone else, and nobody else is better than you." In the early 1950s, Katherine was thrilled to join the organization that would become NASA. She worked on many of NASA's biggest projects including the Apollo 11 mission that landed the first men on the moon. Katherine Johnson's story was made famous in the bestselling book and Oscar-nominated film Hidden Figures. Now in Reaching for the Moon she tells her own story for the first time, in a lively autobiography that will inspire young readers everywhere.

"Witty, compelling, and just plain fun to read . . ." —Evelyn Lamb, Scientific American The Freakonomics of math—a math-world superstar unveils the hidden beauty and logic of the world and puts its power in our hands The math we learn in school can seem like a dull set of rules, laid down by the ancients and not to be questioned. In How Not to Be Wrong, Jordan Ellenberg shows us how terribly limiting this view is: Math isn't confined to abstract incidents that never occur in real life, but rather touches everything we do—the whole world is shot through with it. Math allows us to see the hidden structures underneath the messy and chaotic surface of our world. It's a science of not being wrong, hammered out by centuries of hard work and argument. Armed with the tools of mathematics, we can see through to the true meaning of information we take for granted: How early should you get to the airport? What does "public opinion" really represent? Why do tall parents have shorter children? Who really won Florida in 2000? And how likely are you, really, to develop cancer? How Not to Be Wrong presents the surprising revelations behind all of these questions and many more, using the mathematician's method of analyzing life and exposing the hard-won insights of the academic community to the layman—minus the jargon. Ellenberg chases mathematical threads through a vast range of time and space, from the everyday to the cosmic, encountering, among other things, baseball, Reaganomics, daring lottery schemes, Voltaire, the replicability crisis in psychology, Italian Renaissance painting, artificial languages, the development of non-Euclidean geometry, the coming obesity apocalypse, Antonin Scalia's views on crime and punishment, the psychology of slime molds, what Facebook can and can't figure out about you, and the existence of God. Ellenberg pulls from history as well as from the latest theoretical developments to provide those not trained in math with the knowledge they need. Math, as Ellenberg says, is "an atomic-powered prosthesis that you attach to your common sense, vastly multiplying its reach and strength." With the tools of mathematics in hand, you can understand the world in a deeper, more meaningful way. How Not to Be Wrong will show you how.

The Art of Learning from Data

Carter Reads the Newspaper

How Not to Be Wrong

Mathematical Illiteracy and Its Consequences

Number and Numbers

How to Tell the Truth with Statistics

Designing Better Voting and Fair-Division Procedures

Voters today often desert a preferred candidate for a more viable second choice to avoid wasting their vote. Likewise to a dispute often find themselves unable to agree on a fair division of contested goods. In Mathematics and Democr Steven Brams, a leading authority in the use of mathematics to design decision-making processes, shows how social- and game theory could make political and social institutions more democratic. Using mathematical analysis, he develop rigorous new procedures that enable voters to better express themselves and that allow disputants to divide goods One of the procedures that Brams proposes is "approval voting," which allows voters to vote for as many candidates like or consider acceptable. There is no ranking, and the candidate with the most votes wins. The voter no longer has consider whether a vote for a preferred but less popular candidate might be wasted. In the same vein, Brams puts fo new, more equitable procedures for resolving disputes over divisible and indivisible goods.

Analyzes the art of reading and suggests ways to approach literary works, offering techniques for reading in specific genres ranging from fiction, poetry, and plays to scientific and philosophical works.

"One of the themes of the book is how to have a fulfilling professional life. In order to achieve this goal, Krantz discus keeping a vigorous scholarly program going and finding new challenges, as well as dealing with the everyday tasks of research, teaching, and administration." "In short, this is a survival manual for the professional mathematician - both i academics and in industry and government agencies. It is a sequel to the author's A Mathematician's Survival Guide."--BOOK JACKET.

This book is about the lottery known as lotto, which has one of the longest odds for the big one. Four main problems solved. - Learn principles of chance so you can be in the game but lose less - Learn that there is no strategy but imp frequency of small wins - Use the object called 'spectrum' to compute combined chance of many blocks of numbers - those who erroneously think that the utility-to-risk ratio is too small in lotteries While the main text is about odds a playing and is easy reading as a daily newspaper, the large appendix explains the 'why' to the mathematically inclined. appendix is also a source of probability problems for high school students. Implicit in the chapters on 'lotto designs' i countable infinity of Ph.D. research problems. The vast subject of probability began centuries ago with a dice problem by great mathematicians. Here now is guidance on lotteries, from a mathematician! Here is help in your play against t

odds in the most popular lottery so it will not be a "lootery" on you!

Mathematics and Democracy

Reaching for the Moon

The Story of Carter G. Woodson, Founder of Black History Month

The Grapes of Math

A Mathematician Explains Why the Arguments for God Just Don't Add Up

From Tenure-track to Emeritus

The Hidden Mathematical Logic Of Stories

It has been called everything from the new gold standard to the fundamental building block of the universe. In InfoSense, Keith Devlin shows how to make sense of the constant flow of information that swirls past us daily, and reveals how businesses and individuals alike can benefit from better information management.

The political regime of global capitalism reduces the world to an endless network of numbers within numbers, but how many of us really understand what numbers are? Without such an understanding, how can we challenge the regime of number? In Number and Numbers Alain Badiou offers an philosophically penetrating account with a powerful political subtext of the attempts that have been made over the last century to define the special status of number. Badiou argues that number cannot be defined by the multiform calculative uses to which numbers are put, nor is it exhausted by the various species described by number theory. Drawing on the mathematical theory of surreal numbers, he develops a unified theory of Number as a particular form of being, an infinite expanse to which our access remains limited. This understanding of Number as being harbours important philosophical truths about the structure of the world in which we live. In Badiou's view, only by rigorously thinking through Number can philosophy offer us some hope of breaking through the dense and apparently impenetrable capitalist fabric of numerical relations. For this will finally allow us to point to that which cannot be numbered: the possibility of an event that would deliver us from our unthinking subordination of number.

John Allen Paulos is a master at shedding mathematical lights on our everyday world:What exactly did Lani Guinier say about quotas?What is the probability of identifying a murderer through DNA testing?Which are the real risks to our health and which the phony ones?Employing the same fun-filled, user-friendly, and quirkily insightful approach that put Innumeracy on best-seller lists, Paulos now leads us through the pages of the daily newspaper, revealing the hidden mathematical angles of countless articles. From the Senate, the SATs, and sex to crime, celebrities, and cults, Paulos takes stories that may not seem to involve mathematics at all and

demonstrates how mathematical naïtéan put readers at a distinct disadvantage.Whether he's using chaos theory to puncture economic and environmental predictions, applying logic and self-reference to clarify the hazards of spin doctoring and news compression, or employing arithmetic and common sense to give us a novel perspective on greed and relationships, Paulos never fails to entertain and enlighten.Even if you hated math in school, you'll love the numerical vignettes in this book.

Can a renowned mathematician successfully outwit the stock market? Not when his biggest investment is WorldCom. In A Mathematician Plays the Stock Market , best-selling author John Allen Paulos employs his trademark stories, vignettes, paradoxes, and puzzles to address every thinking reader's curiosity about the market -- Is it efficient? Is it random? Is there anything to technical analysis, fundamental analysis, and other supposedly time-tested methods of picking stocks? How can one quantify risk? What are the most common scams? Are there any approaches to investing that truly outperform the major indexes? But Paulos's tour through the irrational exuberance of market mathematics doesn't end there. An unrequited (and financially disastrous) love affair with WorldCom leads Paulos to question some cherished ideas of personal finance. He explains why "data mining" is a self-fulfilling belief, why "momentum investing" is nothing more than herd behavior with a lot of mathematical jargon added, why the ever-popular Elliot Wave Theory cannot be correct, and why you should take Warren Buffet's "fundamental analysis" with a grain of salt. Like Burton Malkiel's A Random Walk Down Wall Street , this clever and illuminating book is for anyone, investor or not, who follows the markets -- or knows someone who does.

Surprisingly Interesting Maths

The Classic Guide to Intelligent Reading

A Mathematician Plays The Stock Market

Against All Odds

The Survival of a Mathematician

How to Read a Book

Fifty-Two New Effects

This arsenal of tips and techniques eases new students into undergraduate mathematics, unlocking the world of definitions, theorems, and proofs.

Examines the mathematical perspective of societal violence, offering insight into the probability and randomness associated with any given scenario

"Required reading for anyone who's interested in the truth." —Robert Reich In a post-Trumpian world where COVID rates soar and Americans wage near-civil war about election results, Deborah

Stone's Counting promises to transform how we think about numbers. Contrary to what you learned in kindergarten, counting is more art than arithmetic. In fact, numbers are just as much creatures of the human imagination as poetry and painting; the simplest tally starts with judgments about what counts. In a nation whose Constitution originally counted a slave as three-fifths of a person and where algorithms disproportionately consign Black Americans to prison, it is now more important than ever to understand how numbers can be both weapons of the powerful and tools of resistance. With her "signature brilliance" (Robert Kuttner), eminent political scientist Deborah Stone delivers a "mild-altering" work (Jacob Hacker) that shows "how being in thrall to numbers is misguided and dangerous" (New York Times Book Review).

Darwin's greatest accomplishment was to show how life might be explained as the result of natural selection. But does Darwin's theory mean that life was unintended? William A. Dembski argues that it does not. In this book Dembski extends his theory of intelligent design. Building on his earlier work in The Design Inference (Cambridge, 1998), he defends that life must be the product of intelligent design. Critics of Dembski's work have argued that evolutionary algorithms show that life can be explained apart from intelligence. But by employing powerful recent results from the No Free Lunch Theory, Dembski addresses and decisively refutes such claims. As the leading proponent of intelligent design, Dembski reveals a designer capable of originating the complexity and specificity found throughout the cosmos. Scientists and theologians alike will find this book of interest as it brings the question of creation firmly into the realm of scientific debate.

Mathematics: A Very Short Introduction

A Mathematician Plays the Market

The Autobiography of NASA Mathematician Katherine Johnson

Finding Fibonacci

The Hidden Geometry of Information, Biology, Strategy, Democracy, and Everything Else

Mathematician Reads the Newspaper

Five Golden Rules

The heart of mathematics is its elegance; the way it all fits together. Unfortunately, its beauty often eludes the vast majority of people who are intimidated by fear of the difficulty of numbers. Mathematical Elegance remedies this. Using hundreds of examples, the author presents a view of the mathematical landscape that is both accessible and fascinating. At a time of concern that American youth are bored by math, there is renewed interest in improving math skills. Mathematical

Elegance stimulates students, along with those already experienced in the discipline, to explore some of the unexpected pleasures of quantitative thinking. Invoking mathematical proofs famous for their simplicity and brainteasers that are fun and illuminating, the author leaves readers feeling exuberant-as well as convinced that their IQs have been raised by ten points. A host of anecdotes about well-known mathematicians humanize and provide new insights into their lofty subjects. Recalling such classic works as Lewis Carroll's Introduction to Logic and A Mathematician Reads the Newspaper by John Allen Paulos, Mathematical Elegance will energize and delight a wide audience, ranging from intellectually curious students to the enthusiastic general reader.

What two things could be more different than numbers and stories? Numbers are abstract, certain, and eternal, but to most of us somewhat dry and bloodless. Good stories are full of life: they engage our emotions and have subtlety and nuance, but they lack rigor and the truths they tell are elusive and subject to debate. As ways of understanding the world around us, numbers and stories seem almost completely incompatible. Once Upon a Number shows that stories and numbers aren't as different as you might imagine, and in fact they have surprising and fascinating connections. The concepts of logic and probability both grew out of intuitive ideas about how certain situations would play out. Now, logicians are inventing ways to deal with real world situations by mathematical means -- by acknowledging, for instance, that items that are mathematically interchangeable may not be interchangeable in a story. And complexity theory looks at both number strings and narrative strings in remarkably similar terms. Throughout, renowned author John Paulos mixes numbers and narratives in his own delightful style. Along with lucid accounts of cutting-edge information theory we get hilarious anecdotes and jokes; instructions for running a truly impressive pyramid scam; a freewheeling conversation between Groucho Marx and Bertrand Russell (while they're stuck in an elevator together); explanations of why the statistical evidence against OJ Simpson was overwhelming beyond doubt and how the Unabomber's thinking shows signs of mathematical training; and dozens of other treats. This is another winner from America's favorite mathematician.

From the author of the national bestseller Innumeracy, a delightful exploration and explanation of mathematical concepts from algebra to zero in easily accessible alphabetical entries. "Paulos . . . does for mathematics what The Joy of Sex did for the boudoir. . . ."--Washington Post Book World. First time in paperback.

In Five Golden Rules, John L. Casti serves as curator to a brilliant collection of 20th-century mathematical theories, leading us on a fascinating journey of discovery and insight. Probing the frontiers of modern mathematics, Casti examines the origins of some of the most important findings of this century. This is a tale of mystery and logic, elegance and reason; it is the story of five monumental mathematical breakthroughs and how they shape our lives. All those intrigued by the mathematical process, nonacademics and professionals alike, will find this an enlightening, eye-opening, and entertaining work. High school algebra or geometry - and enthusiasm - are the only prerequisites. From the theorem that provided the impetus for modern computers to the calculations that sent the first men to the Moon, these breakthroughs have transformed our lives. Casti illustrates each theorem with a dazzling array of real-world problems it has helped solve - how to calculate the shape of space, optimize investment returns, even chart the course of the development of organisms. Along the way, we meet the leading thinkers of the day: John von Neumann, L. E. J. Brouwer, Marston Morse, and Alan Turing,

among others. And we come to understand the combination of circumstances that led each to such revolutionary discoveries as the Minimax Theorem, which spawned the exciting field of game theory, and the Simplex Method, which underpins the powerful tools of optimization theory.
Mathematical Card Magic
Once Upon A Number
How Many Socks Make a Pair?
The Indian Clerk
Turning Data and Information into Knowledge
A Mathematician Reads the Newspaper
How to Think Like a Mathematician

Distilled wisdom from two publishing pros for every serious nonfiction author in search of big commercial success. Over 50,000 books are published in America each year, the vast majority nonfiction. Even so, many writers are stymied in getting their books published, never mind gaining significant attention for their ideas—and substantial sales. This is the book editors have been recommending to would-be authors. Filled with trade secrets, Thinking Like Your Editor explains: • why every proposal should ask and answer five key questions; • how to tailor academic writing to a general reader, without losing ideas or dumbing down your work; • how to write a proposal that editors cannot ignore; • why the most important chapter is your introduction; • why "simple structure, complex ideas" is the mantra for creating serious nonfiction; • why smart nonfiction editors regularly reject great writing but find new arguments irresistible. Whatever the topic, from history to business, science to philosophy, law, or gender studies, this book is vital to every serious nonfiction writer.

DIV How many socks make a pair? The answer is not always two. And behind this question lies a world of maths that can be surprising, amusing and even beautiful. Using playing cards, a newspaper, the back of an envelope, a Sudoku, some pennies and of course a pair of socks, Rob Eastaway shows how maths can demonstrate its secret beauties in even the most mundane of everyday objects. If you already like maths youÕll discover plenty of new surprises. And if youÕve never picked up a maths book in your life, this one will change your view of the subject forever. /div

From triangles, rotations and power laws, to cones, curves and the dreaded calculus, Alex takes you on a journey of mathematical discovery with his signature wit and limitless enthusiasm. He sifts through over 30,000 survey submissions to uncover the world's favourite number, and meets a mathematician who looks for universes in his garage. He attends the World Mathematical Congress in India, and visits the engineer who designed the first roller-coaster loop. Get hooked on math as Alex delves deep into humankind's turbulent relationship with numbers, and reveals how they have shaped the world we live in.

Statistics has played a leading role in our scientific understanding of the world for centuries, yet we are all familiar with the way statistical claims can be sensationalised, particularly in the media. In the age of big data, as data science becomes established as a discipline, a basic grasp of statistical literacy is more important than ever. In How to Tell the Truth with Statistics, David Spiegelhalter guides the reader through the essential principles we need in order to derive knowledge from data. Drawing on real world problems to introduce conceptual issues, he shows us how statistics can help us determine the luckiest passenger on the Titanic, whether serial killer Harold Shipman could have been caught earlier, and if screening for ovarian cancer is beneficial. How many trees are there on the planet? Do busier hospitals have higher

survival rates? Why do old men have big ears? Spiegelhalter reveals the answers to these and many other questions - questions that can only be addressed using statistical science.

Beyond Numeracy

Mathematical Elegance

Infosense

Irreligion

The Quest to Rediscover the Forgotten Mathematical Genius Who Changed the World

The Influencing Machine: Brooke Gladstone on the Media

Why do even well-educated people understand so little about mathematics? And what are the costs of our innumeracy? John Allen Paulos, in his celebrated bestseller first published in 1988, argues that our inability to deal rationally with very large numbers and the probabilities associated with them results in misinformed governmental policies, confused personal decisions, and an increased susceptibility to pseudoscience of all kinds. Innumeracy lets us know what we're missing, and how we can do something about it. Sprinkling his discussion of numbers and probabilities with quirky stories and anecdotes, Paulos ranges freely over many aspects of modern life, from contested elections to sports stats, from stock scams and newspaper psychics to diet and medical claims, sex discrimination, insurance, lotteries, and drug testing. Readers of Innumeracy will be rewarded with scores of astonishing facts, a fistful of powerful ideas, and, most important, a clearer, more quantitative way of looking at their world.

Argues that there is no logical reason to believe in God, refuting twelve arguments commonly proposed to prove the existence of God, while offering commentary on such topics as miracles, cognitive illusions, and creationist probability.

What are the chances? Find out in this entertaining exploration ofprobabilities inour everyday lives "If there is anything you want to know, or remindyourself, about probabilities, then look no further than thiscomprehensive, yet wittily written and enjoyable, compendium of howto apply probability calculations in real-worldsituations." — Keith Devlin, Stanford University, National PublicRadio's "Math Guy" and author of The Math Geneand The Math Instinct "A delightful guide to the sometimes counterintuitivediscipline of probability. Olofsson points out major ideas here,explains classic puzzles there, and everywhere makes free use ofwitty vignettes to instruct and amuse." — John Allen Paulos, Temple University, author ofInnumeracy and A Mathematician Reads the Newspaper "Beautifully written, with fascinating examples andtidbits of information. Olofsson gently and persuasively shows ushow to think clearly about the uncertainty that governs ourlives." — John Haigh, University of Sussex, author of TakingChances: Winning with Probability From probable improbabilities to regular irregularities,Probabilities: The Little Numbers That Rule Our Livesinvestigates the often-surprising effects of risk and chance in oureveryday lives. With examples ranging from WWII espionage to the O.J. Simpson trial, from bridge to blackjack, from Julius Caesar toJerry Seinfeld, the reader is taught how to think straight in aworld of randomness and uncertainty. Throughout the book, readers learn: Why it is not that surprising for someone to win the lotterytwice How a faulty probability calculation forced an innocent womanto spend three years in prison How to place bets if you absolutely insist on gambling How a newspaper turned an opinion poll into one of the greatestelection blunders in history Educational, eloquent, and entertaining, Probabilities: TheLittle Numbers That Rule Our Lives is the

ideal companion foranyone who wants to obtain a better understanding of themathematics of chance.