

A Mathematician Reads The Newspaper

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

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.

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 abaci*, 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.

A meditation on the beauty and meaning of numbers, exploring mathematical equations, describing some of the mathematical discoveries of the past millennia, and pondering philosophical questions about the relation of numbers to the universe.

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.

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.

While taking a class on infinity at Stanford in the late 1980s, Ravi Kapoor discovers that he is confronting the same mathematical and philosophical dilemmas that his mathematician grandfather had faced many decades earlier--and that had landed him in jail. Charged under an obscure blasphemy law in a small New Jersey town in 1919, Vijay Sahni is challenged by a skeptical judge to defend his belief that the certainty of mathematics can be extended to all human knowledge--including religion. Together, the two men discover the power--and the fallibility--of what has long been considered the pinnacle of human certainty, Euclidean geometry. As grandfather and grandson struggle with the question of whether there can ever be absolute certainty in mathematics or life, they are forced to reconsider their fundamental beliefs and choices. Their stories hinge on their explorations of parallel developments in the study of geometry and infinity--and the mathematics throughout is as rigorous and fascinating as the narrative and characters are compelling and complex. Moving and enlightening, *A Certain Ambiguity* is a story about what it means to face the extent--and the limits--of human knowledge.

This book will help those wishing to teach a course in technical writing, or who wish to write themselves.

Employing intuitive ideas from mathematics, this quirky "meta-memoir" raises questions about our lives that most of us don't think to ask, but arguably should: What part of memory is reliable fact, what part creative embellishment? Which favorite presuppositions are unfounded, which statistically biased? By conjoining two opposing mindsets--the suspension of disbelief required in storytelling and the skepticism inherent in the scientific method--bestselling mathematician John Allen Paulos has created an unusual hybrid, a composite of personal memories and mathematical approaches to re-evaluating them. Entertaining vignettes from Paulos's biography abound--ranging from a bullying math teacher and a fabulous collection of baseball cards to romantic crushes, a grandmother's petty larceny, and his quite unintended role in getting George Bush elected president in 2000. These vignettes serve as springboards to many telling perspectives: simple arithmetic puts life-long habits in a dubious new light; higher dimensional geometry helps us see that we're all rather peculiar; nonlinear dynamics explains the narcissism of small differences cascading into very different siblings; logarithms and exponentials yield insight on why we tend to become bored and jaded as we age; and there are tricks and jokes, probability and coincidences, and much more. For fans of Paulos or newcomers to his work, this witty commentary on his life--and yours--is fascinating reading.

Documents the calculation, numerical value, and use of the ratio from 2000 B.C. to the modern computer age, detailing social conditions in eras when progress was made

What is mathematics, and why is it such a mystery to so many people? Mathematics is the greatest creation of human intelligence. It affects us all. We depend on it in our daily lives, and yet many of the tools of mathematics, such as geometry, algebra and trigonometry, are descended from ancient or non-Western civilizations. *Introducing Mathematics* traces the story of mathematics from the ancient world to modern times, describing the great discoveries and providing an accessible introduction to such topics as number-systems, geometry and algebra, the calculus, the theory of the infinite, statistical reasoning and chaos theory. It shows how the history of mathematics has seen progress and paradox go hand in hand - and how this is still happening today.

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.

Intended for an honors calculus course or for an introduction to analysis, this is an ideal text for undergraduate majors since it covers rigorous analysis, computational dexterity, and a breadth of applications. The book contains many remarkable features: * complete avoidance of ϵ - δ arguments by using sequences instead * definition of the integral as the area under the graph, while area is defined for every subset of the plane * complete avoidance of complex numbers * heavy emphasis on computational problems * applications from many parts of analysis, e.g. convex conjugates, Cantor set, continued fractions, Bessel functions, the zeta functions, and many more * 344 problems with solutions in the back of the book.

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.

"A great storyteller."—Paulo Coelho, author of *The Alchemist* Malba Tahan is the creation of a celebrated Brazilian mathematician looking for a way to bring some of the mysteries and pleasures of mathematics to a wider public. The adventures of Beremiz Samir, *The Man Who Counted*, take the reader on a journey in which, time and again, Samir summons his extraordinary mathematical powers to settle disputes, give wise advice, overcome dangerous enemies, and win for himself fame, fortune, and rich rewards. We learn of previous mathematicians and come to admire Samir's wisdom and patience. In the grace of Tahan's telling, these stories hold unusual delights for the reader.

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.

'A statistical national treasure' Jeremy Vine, BBC Radio 2 'Required reading for all politicians, journalists, medics and anyone who tries to influence people (or is influenced) by statistics. A tour de force' Popular Science Do busier hospitals have higher survival rates? How many trees are there on the planet? Why do old men have big ears? David Spiegelhalter reveals the answers to these and many other questions - questions that can only be addressed using statistical science. 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 *The Art of 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.

'Shines a light on how we can use the ever-growing deluge of data to improve our understanding of the world' Nature

"One of the themes of the book is how to have a fulfilling professional life. In order to achieve this goal, Krantz discusses 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 in academics and in industry and government agencies. It is a sequel to the author's *A Mathematician's Survival Guide*."--BOOK JACKET.

From terrorist attacks to big money jackpots, *Struck by Lightning* deconstructs the odds and oddities of chance, examining both the relevant and irreverent role of randomness in our everyday lives. Human beings have long been both fascinated and appalled by randomness. On the one hand, we love the thrill of a surprise party, the unpredictability of a budding romance, or the freedom of not knowing what tomorrow will bring. We are inexplicably delighted by strange coincidences and striking similarities. But we also hate uncertainty's dark side. From cancer to SARS, diseases strike with no apparent pattern. Terrorists attack, airplanes crash, bridges collapse, and we never know if we'll be that one in a million statistic. We are all constantly faced with situations and choices that involve randomness and uncertainty. A basic understanding of the rules of probability theory, applied to real-life circumstances, can help us to make sense of these situations, to avoid unnecessary fear, to seize the opportunities that randomness presents to us, and to actually enjoy the uncertainties we face. The reality is that when it comes to randomness, you can run, but you can't hide. So many aspects of our lives are governed by events that are simply not in our control. In this entertaining yet sophisticated look at the world of probabilities, author Jeffrey Rosenthal—an improbably talented math professor—explains

the mechanics of randomness and teaches us how to develop an informed perspective on probability.

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.

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.

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.

"A beautiful book... an instant classic of the genre." —Dwight Garner, *New York Times* • A *New York Times* Book Review Editors' Choice MIT psychologist and bestselling author of *Reclaiming Conversation* and *Alone Together*, Sherry Turkle's intimate memoir of love and work *For decades*, Sherry Turkle has shown how we remake ourselves in the mirror of our machines. Here, she illuminates our present search for authentic connection in a time of uncharted challenges. Turkle has spent a career composing an intimate ethnography of our digital world; now, marked by insight, humility, and compassion, we have her own. In this vivid and poignant narrative, Turkle ties together her coming-of-age and her pathbreaking research on technology, empathy, and ethics. Growing up in postwar Brooklyn, Turkle searched for clues to her identity in a house filled with mysteries. She mastered the codes that governed her mother's secretive life. She learned never to ask about her absent scientist father--and never to use his name, her name. Before empathy became a way to find connection, it was her strategy for survival. Turkle's intellect and curiosity brought her to worlds on the threshold of change. She learned friendship at a Harvard-Radcliffe on the cusp of coeducation during the antiwar movement, she mourned the loss of her mother in Paris as students returned from the 1968 barricades, and she followed her ambition while fighting for her place as a woman and a humanist at MIT. There, Turkle found turbulent love and chronicled the wonders of the new computer culture, even as she warned of its threat to our most essential human connections. *The Empathy Diaries* captures all this in rich detail--and offers a master class in finding meaning through a life's work.

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.

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*

Set against the gorgeous backdrop of Rome, Tom Rachman's wry, vibrant debut follows the topsy-turvy private lives of the reporters, editors, and executives of an international English language newspaper as they struggle to keep it - and themselves - afloat. Fifty years and many changes have ensued since the paper was founded by an enigmatic millionaire, and now, amid the stained carpeting and dingy office furniture, the staff's personal dramas seem far more important than the daily headlines. Kathleen, the imperious editor in chief, is smarting from a betrayal in her open marriage; Arthur, the lazy obituary writer, is transformed by a personal tragedy; Abby, the embattled financial officer, discovers that her job cuts and her love life are intertwined in a most unexpected way. Out in the field, a veteran Paris freelancer goes to desperate lengths for his next byline, while the new Cairo stringer is mercilessly manipulated by an outrageous war correspondent with an outsize ego. And in the shadows is the isolated young publisher who pays

more attention to his prized basset hound, Schopenhauer, than to the fate of his family's quirky newspaper. As the era of print news gives way to the Internet age and this imperfect crew stumbles toward an uncertain future, the paper's rich history is revealed, including the surprising truth about its founder's intentions. Spirited, moving, and highly original, *The Imperfectionists* will establish Tom Rachman as one of our most perceptive, assured literary talents.

With half a million copies in print, *How to Read a Book* is the best and most successful guide to reading comprehension for the general reader, completely rewritten and updated with new material. A CNN Book of the Week: "Explains not just why we should read books, but how we should read them. It's masterfully done." —Farheed Zakaria Originally published in 1940, this book is a rare phenomenon, a living classic that introduces and elucidates the various levels of reading and how to achieve them—from elementary reading, through systematic skimming and inspectional reading, to speed reading. Readers will learn when and how to "judge a book by its cover," and also how to X-ray it, read critically, and extract the author's message from the text. Also included is instruction in the different techniques that work best for reading particular genres, such as practical books, imaginative literature, plays, poetry, history, science and mathematics, philosophy and social science works. Finally, the authors offer a recommended reading list and supply reading tests you can use measure your own progress in reading skills, comprehension, and speed.

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.

The biography of a mathematical genius. Paul Erdos was the most prolific pure mathematician in history and, arguably, the strangest too. 'A mathematical genius of the first order, Paul Erdos was totally obsessed with his subject -- he thought and wrote mathematics for nineteen hours a day until he died. He travelled constantly, living out of a plastic bag and had no interest in food, sex, companionship, art -- all that is usually indispensable to a human life. Paul Hoffman, in this marvellous biography, gives us a vivid and strangely moving portrait of this singular creature, one that brings out not only Erdos's genius and his oddness, but his warmth and sense of fun, the joyfulness of his strange life.' Oliver Sacks For six decades Erdos had no job, no hobbies, no wife, no home; he never learnt to cook, do laundry, drive a car and died a virgin. Instead he travelled the world with his mother in tow, arriving at the doorstep of esteemed mathematicians declaring 'My brain is open'. He travelled until his death at 83, racing across four continents to prove as many theorems as possible, fuelled by a diet of espresso and amphetamines. With more than 1,500 papers written or co-written,

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.

Pushing Limits: From West Point to Berkeley and Beyond challenges the myth that mathematicians lead dull and ascetic lives. It recounts the unique odyssey of a noted mathematician who overcame military hurdles at West Point, Army Ranger School and the Vietnam War, and survived many civilian escapades—hitchhiking in third-world hotspots, fending off sharks in Bahamian reefs, and camping deep behind the forbidding Iron Curtain. From ultra-conservative West Point in the '60s to ultra-radical Berkeley in the '70s, and ultimately to genteel Georgia Tech in the '80s, this is the tale of an academic career as noteworthy for its offbeat adventures as for its teaching and research accomplishments. It brings to life the struggles and risks underlying mathematical research, the unparalleled thrill of making scientific breakthroughs, and the joy of sharing those discoveries around the world. Hill's book is packed with energy, humor, and suspense, both physical and intellectual. Anyone who is curious about how one maverick mathematician thinks, who wants to relive the zanier side of the '60s and '70s, who wants an armchair journey into the third world, or who seeks an unconventional view of several of society's iconic institutions, will be drawn to this book.

Fooled by Randomness is a standalone book in Nassim Nicholas Taleb's landmark *Incerto* series, an investigation of opacity, luck, uncertainty, probability, human error, risk, and decision-making in a world we don't understand. The other books in the series are *The Black Swan*, *Antifragile*, *Skin in the Game*, and *The Bed of Procrustes*. *Fooled by Randomness* is the word-of-mouth sensation that will change the way you think about business and the world. Nassim Nicholas Taleb—veteran trader, renowned risk expert, polymathic scholar, erudite raconteur, and New York Times bestselling author of *The Black Swan*—has written a modern classic that turns on its head what we believe about luck and skill. This book is about luck—or more precisely, about how we perceive and deal with luck in life and business. Set against the backdrop of the most conspicuous forum in which luck is mistaken for skill—the world of trading—*Fooled by Randomness* provides captivating insight into one of the least understood factors in all our lives. Writing in an entertaining narrative style, the author tackles major intellectual issues related to the underestimation of the influence of happenstance on our lives. The book is populated with an array of characters, some of whom have grasped, in their own way, the significance of chance: the baseball legend Yogi Berra; the philosopher of knowledge Karl Popper; the

ancient world's wisest man, Solon; the modern financier George Soros; and the Greek voyager Odysseus. We also meet the fictional Nero, who seems to understand the role of randomness in his professional life but falls victim to his own superstitious foolishness. However, the most recognizable character of all remains unnamed—the lucky fool who happens to be in the right place at the right time—he embodies the “survival of the least fit.” Such individuals attract devoted followers who believe in their guru's insights and methods. But no one can replicate what is obtained by chance. Are we capable of distinguishing the fortunate charlatan from the genuine visionary? Must we always try to uncover nonexistent messages in random events? It may be impossible to guard ourselves against the vagaries of the goddess Fortuna, but after reading *Foiled by Randomness* we can be a little better prepared. Named by Fortune One of the Smartest Books of All Time A Financial Times Best Business Book of the Year

A mathematical guide to understanding why life can seem to be one big coincidence—and why the odds of just about everything are better than we would think. What are the chances? This is the question we ask ourselves when we encounter the strangest and most seemingly impossible coincidences, like the woman who won the lottery four times or the fact that Lincoln's dreams foreshadowed his own assassination. But, when we look at coincidences mathematically, the odds are a lot better than any of us would have thought. In *Fluke*, mathematician Joseph Mazur takes a second look at the seemingly improbable, sharing with us an entertaining guide to the most surprising moments in our lives. He takes us on a tour of the mathematical concepts of probability, such as the law of large numbers and the birthday paradox, and combines these concepts with lively anecdotes of flukes from around the world. How do you explain finding your college copy of *Moby Dick* in a used bookstore on the Seine on your first visit to Paris? How can a jury be convinced beyond a reasonable doubt that DNA found at the scene of a heinous crime did not get there by some fluke? Should we be surprised if strangers named Maria and Francisco, seeking each other in a hotel lobby, accidentally meet the wrong Francisco and the wrong Maria, another pair of strangers also looking for each other? As Mazur reveals, if there is any likelihood that something could happen, no matter how small, it is bound to happen to someone at some time. In *Fluke*, Mazur offers us proof of the inevitability of the sublime and the unexpected. He has written a book that will appeal to anyone who has ever wondered how all of the tiny decisions that happen in our lives add up to improbable wholes. A must-read for math enthusiasts and storytellers alike, *Fluke* helps us to understand the true nature of chance.

"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.

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 naïveté 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.

What are the chances? Find out in this entertaining exploration of probabilities in our everyday lives “If there is anything you want to know, or remind yourself, about probabilities, then look no further than this comprehensive, yet wittily written and enjoyable, compendium of how to apply probability calculations in real-world situations.” — Keith Devlin, Stanford University, National Public Radio's “Math Guy” and author of *The Math Gene* and *The Math Instinct* “A delightful guide to the sometimes counterintuitive discipline of probability. Olofsson points out major ideas here, explains classic puzzles there, and everywhere makes free use of witty vignettes to instruct and amuse.” — John Allen Paulos, Temple University, author of *Innumeracy* and *A Mathematician Reads the Newspaper* “Beautifully written, with fascinating examples and tidbits of information. Olofsson gently and persuasively shows us how to think clearly about the uncertainty that governs our lives.” — John Haigh, University of Sussex, author of *Taking Chances: Winning with Probability* From probable improbabilities to regular irregularities, *Probabilities: The Little Numbers That Rule Our Lives* investigates the often-surprising effects of risk and chance in our everyday lives. With examples ranging from WWII espionage to the O.J. Simpson trial, from bridge to blackjack, from Julius Caesar to Jerry Seinfeld, the reader is taught how to think straight in a world of randomness and uncertainty. Throughout the book, readers learn: Why it is not that surprising for someone to win the lottery twice How a faulty probability calculation forced an innocent woman to 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 greatest election blunders in history Educational, eloquent, and entertaining, *Probabilities: The Little Numbers That Rule Our Lives* is the ideal companion for anyone who wants to obtain a better understanding of the mathematics of chance.

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