

## Srinivasa Ramanujan Achievements File

**"Our understanding of how the human brain performs mathematical calculations is far from complete. In *The Number Sense*, Stanislas Dehaene offers readers an enlightening exploration of the mathematical mind. Using research showing that human infants have a rudimentary number sense, Dehaene suggests that this sense is as basic as our perception of color, and that it is wired into the brain. But how then did we leap from this basic number ability to trigonometry, calculus, and beyond? Dehaene shows that it was the invention of symbolic systems of numerals that started us on the climb to higher mathematics. Tracing the history of numbers, we learn that in early times, people indicated numbers by pointing to part of their bodies, and how Roman numerals were replaced by modern numbers. On the way, we also discover many fascinating facts: for example, because Chinese names for numbers are short, Chinese people can remember up to nine or ten digits at a time, while English-speaking people can only remember seven. A fascinating look at the crossroads where numbers and neurons intersect, *The Number Sense* offers an intriguing tour of how the structure of the brain shapes our mathematical abilities, and how math can open up a window on the human mind"--Provided by publisher.**

**String theory says we live in a ten-dimensional universe, but that only four are accessible to our everyday senses. According to theorists, the missing six are curled up in bizarre structures known as Calabi-Yau manifolds. In *The Shape of Inner Space*, Shing-Tung Yau, the man who mathematically proved that these manifolds exist, argues that not only is geometry fundamental to string theory, it is also fundamental to the very nature of our universe. Time and again, where Yau has gone, physics has followed. Now for the first time, readers will follow Yau's penetrating thinking on where we've been, and where mathematics will take us next. A fascinating exploration of a world we are only just beginning to grasp, *The Shape of Inner Space* will change the way we consider the universe on both its grandest and smallest scales.**

**Originally published in 1927, this book presents the collected papers of the renowned Indian mathematician Srinivasa Ramanujan (1887-1920), with editorial contributions from G. H. Hardy (1877-1947). Detailed notes are incorporated throughout and appendices are also included. This book will be of value to anyone with an interest in the works of Ramanujan and the history of mathematics.**

**"This book is the first volume of a two-volume textbook for undergraduates and is indeed the crystallization of a course offered by the author at the California Institute of Technology to undergraduates without any previous knowledge of number theory. For this reason, the book starts with the most elementary properties of the natural integers. Nevertheless, the text succeeds in presenting an enormous amount of material in little more than 300 pages."--MATHEMATICAL REVIEWS**

***Figuring* explores the complexities of love and the human search for truth and meaning through the interconnected lives of several historical figures across four centuries--beginning with the astronomer Johannes Kepler, who discovered the laws of planetary motion, and ending with the marine biologist and author Rachel Carson, who catalyzed the environmental movement. Stretching between these figures is a cast of artists, writers, and scientists--mostly women, mostly queer--whose public contribution have risen out of their unclassifiable and often heartbreaking private relationships to change the way we understand, experience, and appreciate the universe. Among them are the astronomer Maria Mitchell, who paved the way for women in science; the sculptor Harriet Hosmer, who did the same in art; the journalist and literary critic Margaret Fuller, who sparked the feminist movement; and the poet Emily Dickinson. Emanating from these lives are larger questions about the measure of a good life and what it means to leave a lasting mark of betterment on an imperfect world: Are achievement and acclaim enough for happiness? Is genius? Is love? Weaving through the narrative is a set of peripheral figures--Ralph Waldo Emerson, Charles Darwin, Elizabeth Barrett Browning, Herman Melville, Frederick Douglass, Nathaniel Hawthorne, and Walt Whitman--and a tapestry of themes spanning music, feminism, the history of science, the rise and decline of religion, and how the intersection of astronomy, poetry, and Transcendentalist philosophy fomented the environmental movement.**

**The so-called Lost Notebook of S.R. Ramanujan was brought to light in 1976 as part of the Watson bequest, by G.E. Andrews with whose introduction this collection of unpublished manuscripts opens. A major portion of the Lost Notebook - really just 90 unpaginated sheets of work on q-series and other topics - is reproduced here in facsimile. Letters from Ramanujan to Hardy as well as various other sheets of seemingly related notes are then included, on topics including coefficients in the  $1/q^3$  and  $1/q^2$  problems and the mock theta functions. The next 180 pages consist of unpublished manuscripts of Ramanujan, including 28 pages from the 'Loose Papers' held in the Trinity College Library. Finally a number of interesting letters that were exchanged between Ramanujan, Littlewood, Hardy and Watson, with a bearing on Ramanujan's work are collected together here with other extracts and fragments.**

**Anand Kumar, a mathematics prodigy, defied all challenges to set up one of the most successful and innovative teaching initiatives in the world--Super 30. Born in Chandipur Bela, Patna, Anand secured a place in Cambridge University but couldn't attend because he had no money and sold papads in the evenings instead. He dealt with his own disappointment by setting up an innovative school in 2002 to prepare underprivileged students for the IIT JEE examination. Super 30 has an astonishing success rate and on an average, twenty-seven to twenty-eight of the thirty students crack the exam every year. Stirring and heart-wrenching, this is the extraordinary story of a visionary who has elevated these bright sparks and, through education, given them hope to rise above crippling poverty.**

**[Harmonic Analysis on Semisimple Lie Groups](#)**

**[Twelve Lectures on Subjects Suggested by His Life and Work](#)**

**[My Search for Ramanujan](#)**

**[New Kind of Science](#)**

**[Zeta and Q-Zeta Functions and Associated Series and Integrals](#)**

**[Letters and Commentary](#)**

**[Notes from the Book](#)**

**[The Power of Mathematical Thinking](#)**

[\*\*Vedic Mathematics, Or Sixteen Simple Mathematical Formulae from the Vedas\*\*](#)  
[\*\*Tantrasaṅgraha of Nīlakaṅṭha Somayājī\*\*](#)  
[\*\*Frontline\*\*](#)  
[\*\*Mathematical Education\*\*](#)

The letters that Ramanujan wrote to G. H. Hardy on January 16 and February 27, 1913, are two of the most famous letters in the history of mathematics. These and other letters introduced Ramanujan and his remarkable theorems to the world and stimulated much research, especially in the 1920s and 1930s. This book brings together many letters to, from, and about Ramanujan. The letters came from the National Archives in Delhi, the Archives in the State of Tamil Nadu, and a variety of other sources. Helping to orient the reader is the extensive commentary, both mathematical and cultural, by Berndt and Rankin; in particular, they discuss in detail the history, up to the present day, of each mathematical result in the letters. Containing many letters that have never been published before, this book will appeal to those interested in Ramanujan's mathematics as well as those wanting to learn more about the personal side of his life. Ramanujan: Letters and Commentary was selected for the CHOICE list of Outstanding Academic Books for 1996.

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.

This undergraduate textbook promotes an active transition to higher mathematics. Problem solving is the heart and soul of this book: each problem is carefully chosen to demonstrate, elucidate, or extend a concept. More than 300 exercises engage the reader in extensive arguments and creative approaches, while exploring connections between fundamental mathematical topics. Divided into four parts, this book begins with a playful exploration of the building blocks of mathematics, such as definitions, axioms, and proofs. A study of the fundamental concepts of logic, sets, and functions follows, before focus turns to methods of proof. Having covered the core of a transition course, the author goes on to present a selection of advanced topics that offer opportunities for extension or further study. Throughout, appendices touch on historical perspectives, current trends, and open questions, showing mathematics as a vibrant and dynamic human enterprise. This second edition has been reorganized to better reflect the layout and curriculum of standard transition courses. It also features recent developments and improved appendices. *An Invitation to Abstract Mathematics* is ideal for those seeking a challenging and engaging transition to advanced mathematics, and will appeal to both undergraduates majoring in mathematics, as well as non-math majors interested in exploring higher-level concepts. From reviews of the first edition: Bajnok's new book truly invites students to enjoy the beauty, power, and challenge of abstract mathematics. ... The book can be used as a text for traditional transition or structure courses ... but since Bajnok invites all students, not just mathematics majors, to enjoy the subject, he assumes very little background knowledge. Jill Dietz, MAA Reviews The style of writing is careful, but joyously enthusiastic.... The author's clear attitude is that mathematics consists of problem solving, and that writing a proof falls into this category. Students of mathematics are, therefore, engaged in problem solving, and should be given problems to solve, rather than problems to imitate. The author attributes this approach to his Hungarian background ... and encourages students to embrace the challenge in the same way an athlete engages in vigorous practice. John Perry, zbMATH

Expander graphs are an important tool in theoretical computer science, geometric group theory, probability, and number theory. Furthermore, the techniques used to rigorously establish the expansion property of a graph draw from such diverse areas of mathematics as representation theory, algebraic geometry, and arithmetic combinatorics. This text focuses on the latter topic in the important case of Cayley graphs on finite groups of Lie type, developing tools such as Kazhdan's property (T), quasirandomness, product estimates, escape from subvarieties, and the Balog-Szemerédi-Gowers lemma. Applications to the affine sieve of Bourgain, Gamburd, and Sarnak are also given. The material is largely self-contained, with additional sections on the general theory of expanders, spectral theory, Lie theory, and the Lang-Weil bound, as well as numerous exercises and other optional material.

The second edition of this book updates and expands upon a historically important collection of mathematical problems first published in the United States by Birkhäuser in 1981. These problems serve as a record of the informal discussions held by a group of mathematicians at the Scottish Café in Lwów, Poland, between the two world wars. Many of them were leaders in the development of such areas as functional and real analysis, group theory, measure and set theory, probability, and topology. Finding solutions to the problems they proposed has been ongoing since World War II, with prizes offered in many cases to those who are successful. In the 35 years since the first edition published, several more problems have been fully or partially solved, but even today many still remain unsolved and several prizes remain unclaimed. In view of this, the editor has gathered new and updated commentaries on the original 193 problems. Some problems are solved for the first time in this edition. Included again in full are transcripts of lectures given by Stanislaw Ulam, Mark Kac, Antoni Zygmund, Paul Erdős, and Andrzej Granas that provide amazing insights into the mathematical environment of Lwów before World War II and the development of *The Scottish Book*. Also new in this edition are a brief history of the University of

Wrocław's New Scottish Book, created to revive the tradition of the original, and some selected problems from it. The Scottish Book offers a unique opportunity to communicate with the people and ideas of a time and place that had an enormous influence on the development of mathematics and try their hand on the unsolved problems. Anyone in the general mathematical community with an interest in the history of modern mathematics will find this to be an insightful and fascinating read. An introduction to computational complexity theory, its connections and interactions with mathematics, and its central role in the natural and social sciences, technology, and philosophy Mathematics and Computation provides a broad, conceptual overview of computational complexity theory—the mathematical study of efficient computation. With important practical applications to computer science and industry, computational complexity theory has evolved into a highly interdisciplinary field, with strong links to most mathematical areas and to a growing number of scientific endeavors. Avi Wigderson takes a sweeping survey of complexity theory, emphasizing the field's insights and challenges. He explains the ideas and motivations leading to key models, notions, and results. In particular, he looks at algorithms and complexity, computations and proofs, randomness and interaction, quantum and arithmetic computation, and cryptography and learning, all as parts of a cohesive whole with numerous cross-influences. Wigderson illustrates the immense breadth of the field, its beauty and richness, and its diverse and growing interactions with other areas of mathematics. He ends with a comprehensive look at the theory of computation, its methodology and aspirations, and the unique and fundamental ways in which it has shaped and will further shape science, technology, and society. For further reading, an extensive bibliography is provided for all topics covered. Mathematics and Computation is useful for undergraduate and graduate students in mathematics, computer science, and related fields, as well as researchers and teachers in these fields. Many parts require little background, and serve as an invitation to newcomers seeking an introduction to the theory of computation. Comprehensive coverage of computational complexity theory, and beyond High-level, intuitive exposition, which brings conceptual clarity to this central and dynamic scientific discipline Historical accounts of the evolution and motivations of central concepts and models A broad view of the theory of computation's influence on science, technology, and society Extensive bibliography

Subrahmanyan Chandrasekhar — known simply as Chandra throughout the scientific world — has become a legendary figure for his prolific contributions to physics, astrophysics, and applied mathematics. Before his death in 1995, Chandra had forbidden a memorial of the conventional sort, celebrating his life. This book, which contains some thirty articles by his former students, his associates, and his colleagues, is in a sense a memorial volume. It says little about Chandra's great scientific achievements, but shows his human side and the various facets of his brilliant personality, his incredible memory, his wit, and the breadth of his knowledge of art, music, literature, and the humanities in general. The contributors to this highly interesting book are among the few who broke the seemingly forbidden barrier surrounding the very private Chandra and came to know him well in one context or another. They include Lalitha Chandrasekhar, Roger Penrose, Richard H Dalitz, J W Cronin, Robert G Sachs, Abhay Ashtekar, and Robert Wald. Contents: "My Everlasting Flame" (L Chandrasekhar) S Chandrasekhar: A Personal Portrait (A Ashtekar) Exploring General Relativity with Chandra (V Ferrari) Chandrasekhar and the End of Time (R Penrose) Some Memories of Chandra (R M Wald) Chandra in Focus (S Kumar) Reminiscences of Chandra (J W Cronin) Some Personal Recollections of S Chandrasekhar at Chicago and Oxford (R H Dalitz) A Towering Figure: Reminiscences and Reflections (L Mestel) Reminiscences About Chandra (R G Sachs) and other papers Readership: General. Reviews: "Not a biography, this, but an album of verbal portraits of an austere, proud, cultured and deeply humane astrophysicist." New Scientist "The present effort is a fine one, and I recommend the book with enthusiasm." Physics World

[The Art and Craft of Problem Solving](#)

[The SAGE Handbook of Early Childhood Policy](#)

[S Chandrasekhar: The Man Behind the Legend](#)

[The Life and Letters of Anandibai Joshee](#)

[The Man Who Knew Infinity](#)

[Wings of Fire](#)

[Changing the World 30 Students at a Time](#)

[The Lost Notebook and Other Unpublished Papers](#)

[Figuring](#)

[The International Congress of Mathematicians--A Human Endeavor](#)

[For One-line Answers to All Mathematical Problems](#)

This text provides a simple account of classical number theory, as well as some of the historical background in which the subject evolved. It is intended for use in a one-semester, undergraduate number theory course taken primarily by mathematics majors and students preparing to be secondary school teachers. Although the text was written with this readership in mind, very few formal prerequisites are required. Much of the text can be read by students with a sound background in high school mathematics.

"The son of a prominent Japanese mathematician who came to the United States after World War II, Ken Ono was raised on a diet of high expectations and little praise. Rebelling against his pressure-cooker of a life, Ken determined to drop out of high school to follow his own path. To obtain his father's approval, he invoked the biography of the famous Indian mathematical prodigy Srinivasa Ramanujan, whom his father revered, who had twice flunked out of college because of his single-minded devotion to mathematics. Ono describes his rocky path through college and graduate school, interweaving Ramanujan's story with his own and telling how at key moments, he was inspired by Ramanujan and guided by mentors who encouraged him to pursue his interest in exploring Ramanujan's mathematical legacy. Picking up where others left off, beginning with the great English mathematician G.H. Hardy, who brought Ramanujan to Cambridge in 1914, Ono has devoted his mathematical career to understanding how in his short life, Ramanujan was able to discover so many deep mathematical truths, which Ramanujan believed had been sent to him as visions from a Hindu goddess. And it was Ramanujan who was ultimately the source of reconciliation between Ono and his parents. Ono's search for Ramanujan ranges over three continents and crosses paths with mathematicians whose lives span the globe and the entire twentieth century and beyond. Along the way, Ken made many fascinating discoveries. The most important and surprising one of all was his own humanity."

New and classical results in computational complexity, including interactive proofs, PCP, derandomization, and quantum computation. Ideal for graduate students.

The First Edition of the book is a collection of articles, all by the author, on the Indian mathematical genius Srinivasa Ramanujan as well as on some of the greatest mathematicians in history whose life and works have things in common with Ramanujan. It presents a unique comparative study of Ramanujan's spectacular discoveries and remarkable life with the monumental contributions of various mathematical luminaries, some of whom, like Ramanujan, overcame great difficulties in life. Also, among the articles are reviews of three important books on Ramanujan's mathematics and life. In addition, some aspects of Ramanujan's contributions, such as his remarkable formulae for the number pi, his path-breaking work in the theory of partitions, and his fundamental observations on quadratic forms, are discussed. Finally, the book describes various current efforts to ensure that the legacy of Ramanujan will be preserved and continue to thrive in the future. This Second Edition is an expanded version of the first with six more articles by the author. Of note is the inclusion of a detailed review of the movie *The Man Who Knew Infinity*, a description of the fundamental work of the SASTRA Ramanujan Prize Winners, and an account of the Royal Society Conference to honour Ramanujan's legacy on the centenary of his election as FRS.

Algebra, with Arithmetic and Mensuration, from the Sanskrit of Brahmagupta and Bhaskara was one of the earliest fruits of the European encounter with the scientific heritage of India.

Colebrooke's work first appeared in 1817 and remains useful even today. This work contains English translations of two classics of Indian mathematics, namely Bhaskara's *Lilavati* and *Bijaganita*. These are supplemented by the twelfth and eighteenth chapters of Brahmagupta's *Brahmasphutasiddhanta*. These translations are enriched by copious extracts from various commentaries by Gangadhara, Suryadasa, Ganesa and Rama-krsna on the *Lilavati*; by Krsna Daivajna and Ramakrsna on the *Bijaganita*. He also made use of the Persian translations of the mathematical treatises. "The preface seeks to situate Indian Algebra in the context of development in other parts of the world.

"This book is a search for 'the real Anandibai Joshee' ---- a search in which the readers are invited to participate." In her short and eventful life, Anandibai Joshee, the first Indian woman to earn a medical degree, broke many stereotypes. Literate at a time when it was taboo for a girl to attend school or even 'pick up a paper', she was courageous, articulate, and assertive. And ambitious. Fuelled by a desire to improve the healthcare that was available to Indian women at that time, she travelled across the seas to the United States to study medicine. Meera Kosambi's biography of Anandibai is more than just a retelling of the life of a woman who was ahead of her times. Drawing on a host of narratives, Kosambi recovers Anandibai's many voices, which have been submerged in history -- that of a conflicted feminist, a nationalist, and a reformer, among others -- and her engagement with the world at large. This volume is a testament to Meera Kosambi's commitment to social history. When she passed away in 2015, she left an incomplete manuscript that has painstakingly been put together by the editors. Drawing on archival research, including a host of Anandibai's letters, her poems in Marathi, newspaper reports, and rare photographs, this book will be of immense interest to scholars and researchers of modern Indian history, sociology, gender, and South Asian studies.

Examines the early developments and uses of mathematics in such places as Egypt, Mesopotamia, China, and India

[How I Learned to Count](#)

[A Modern Approach](#)

[Introduction to Analytic Number Theory](#)

[A Theory Revolutionizing Technology and Science](#)

[The Crest of the Peacock](#)

[Expansion in Finite Simple Groups of Lie Type](#)

[A Life of the Genius Ramanujan](#)

[Non-European Roots of Mathematics](#)

[Mathematics and Computation](#)

[How Not to Be Wrong](#)

[How the Mind Creates Mathematics, Revised and Updated Edition](#)

## [A Novel](#)

Zeta and q-Zeta Functions and Associated Series and Integrals is a thoroughly revised, enlarged and updated version of Series Associated with the Zeta and Related Functions. Many sections of the book have been significantly modified or rewritten, and a new chapter on the theory and applications of the basic (or q-) extensions of various special functions is invaluable because it covers not only detailed and systematic presentations of the theory and applications of the various methods and techniques used in dealing with many different integrals associated with the Zeta and related functions, but stimulating historical accounts of a large number of problems and well-classified tables of series and integrals. Detailed presentations of the theory and applications of the various methods and techniques used in dealing with many different classes of series and integrals associated with the Zeta and q-Zeta Functions. Avul Pakir Jainulabdeen Abdul Kalam, The Son Of A Little-Educated Boat-Owner In Rameswaram, Tamil Nadu, Had An Unparalleled Career As A Defence Scientist, Culminating In The Highest Award Of India, The Bharat Ratna. As Chief Of The Country`S Defence Research And Development Programme, Kalam Demonstrated The Great Potential For Dynamism And Innovation In Seemingly Moribund Research Establishments. This Is The Story Of Kalam`S Rise From Obscurity And His Personal And Professional Struggles, As Well As The Story Of Agni, Prithvi, Akash And Nag--Missiles That Have Become Household Names In India And That Have Raised The Nation To The Level Of A Missile Power Of International Reckoning.

The fifth and final volume to establish the results claimed by the great Indian mathematician Srinivasa Ramanujan in his "Notebooks" first published in 1957. Although each of the five volumes contains many deep results, the average depth in this volume is possibly greater than in the first four. There are several results on continued fractions - a subject that Ramanujan loved very much. We wish that this and previous volumes will serve as springboards for further investigations by mathematicians intrigued by Ramanujan's remarkable ideas.

Recent authoritative evidence suggests that an estimated 200 million children under five fail to achieve their developmental potential due to factors including poor health and nutrition and lack of high quality care. A significant number of the world's children today lack the basic rights to health, development and protection. In light of such statistics, early childhood services have been expanded around the world. The SAGE Handbook of Early Childhood Policy draws critical attention to policy in Early Childhood Education and Care (ECEC) its relationship to service provision and its impact on the lives of children and families. The perspectives of leading academics and researchers from Europe, North America, South America, Africa, Australasia and Asia have been brought together to explore five key themes: Part 1: The Relationship Between Research, Policy And Practice: Country Case Studies Part 2: Equitable Early Childhood Services: Intervention to Improve Children's Outcomes Part 3: Extending Practice: The Role of Early Childhood Services In Family Support Part 4: Participation, Rights and Diversity Part 5: Future Directions for Early Childhood Policy This handbook is essential reading for practitioners, stakeholders and others committed to working within early years services to achieve an awareness of policy and its implications for services and practice. Appealing to everyone from college-level majors to independent learners, The Art and Craft of Problem Solving, 3rd Edition introduces a problem-solving approach to mathematics, a departure from the traditional exercises approach. The goal of The Art and Craft of Problem Solving is to develop strong problem solving skills, which it achieves by encouraging students to do mathematics for the fun of it. Paul Zeitz draws upon his experience as a coach for the international mathematics Olympiad to give students an enhanced sense of mathematics and the ability to investigate and solve problems. Tantrasangraha, composed by the renowned Kerala astronomer Nilakantha Somayajhi (c.1444-1545 AD) ranks along with Aryabhatya of Aryabhata and Siddhanta Brihaspati of Bhaskara as one of the major works which significantly influenced further work on astronomy in India. One of the distinguishing features is the introduction of a major revision of the traditional Indian planetary model. Nilakantha arrived at a unified theory of planetary latitudes and a better formulation of the equation of centre for the interior planets (Mercury and Venus) than was previously available. In this translation and explanatory notes, K. Ramasubramanian and M. S. Sriram have used authentic Sanskrit editions of Tantrasangraha by Surand Kunjan Pillai and K V Sarma. All verses have been translated into English, which have been supplemented with detailed explanations including all necessary mathematical relations, illustrative examples, figures and tables using modern mathematical notation.

"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 mathematics that hold 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 how 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 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 tall children? How did Obama really win 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. It's a 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 time and space, from the everyday to the cosmic, encountering, among other things, baseball, Reaganomics, daring lottery schemes, Voltaire, the replicability crisis in psychology, It's a Wonderful Life, 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 you 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 answers 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.

## [Super 30](#)

[Essays Providing a Comparative Study](#)

[An Autobiography](#)

[A Beautiful Mind](#)

[Mathematics from The Scottish Café, with Selected Problems from The New Scottish Book](#)

[A Synopsis of Elementary Results in Pure and Applied Mathematics](#)

[An Invitation to Abstract Mathematics](#)

[The Shape of Inner Space](#)

[Time Travel and Other Mathematical Bewilderments](#)

[L?l?vat? of Bh?skar?c?rya](#)

[Computational Complexity](#)

[B?jaga?ita](#)

**Martin Gardner's Mathematical Games** columns in *Scientific American* inspired and entertained several generations of mathematicians and scientists. Gardner in his crystal-clear prose illuminated corners of mathematics, especially recreational mathematics, that most people had no idea existed. His playful spirit and inquisitive nature invite the reader into an exploration of beautiful mathematical ideas along with him. These columns were both a revelation and a gift when he wrote them; no one--before Gardner--had written about mathematics like this. They continue to be a marvel. This is the original 1988 edition and contains columns published from 1974-1976.

In 1150 AD, Bhaskaracarya (b. 1114 AD), renowned mathematician and astronomer of Vedic tradition composed *Lilavati* as the first part of his larger work called *Siddhanta Siromani*, a comprehensive exposition of arithmetic, algebra, geometry, mensuration, number theory and related topics. *Lilavati* has been used as a standard textbook for about 800 years. This lucid, scholarly and literary presentation has been translated into several languages of the world. Bhaskaracarya himself never gave any derivations of his formulae. N.H. Phadke (1902-1973) worked hard to construct proofs of several mathematical methods and formulae given in original *Lilavati*. The present work is an enlargement of his Marathi work and attempts a thorough mathematical explanation of definitions, formulae, short cuts and methodology as intended by Bhaskara. Stitches are followed by literal translations so that the reader can enjoy and appreciate the beauty of accurate and musical presentation in *Lilavati*. The book is useful to school going children, sophomores, teachers, scholars, historians and those working for cause of mathematics.

The bestselling, prize-winning biography of a mathematical genius who suffered from schizophrenia, miraculously recovered, and then won a Nobel Prize.

A biography of the Indian mathematician Srinivasa Ramanujan. The book gives a detailed account of his upbringing in India, his mathematical achievements, and his mathematical collaboration with English mathematician G. H. Hardy. The book also reviews the life of Hardy and the academic culture of Cambridge University during the early twentieth century.

This vividly illustrated history of the International Congress of Mathematicians — a meeting of mathematicians from around the world held roughly every four years — acts as a visual history of the 25 congresses held between 1897 and 2006, as well as a story of changes in the culture of mathematics over the past century. Because the congress is an international meeting, looking at its history allows us a glimpse into the effect of wars and strained relations between nations on the scientific community.

[A Fragmented Feminism](#)

[The Indian Clerk](#)

[Ramanujan's Place in the World of Mathematics](#)

[Ramanujan](#)

[The Number Sense](#)

[The Scottish Book](#)

[String Theory and the Geometry of the Universe's Hidden Dimensions](#)

[Collected Papers of Srinivasa Ramanujan](#)

[Elementary Number Theory](#)

[A Treatise of Mathematics of Vedic Tradition : with Rationale in Terms of Modern Mathematics Largely Based on N.H. Phadke's Marāthī Translation of Līlavati](#)

[Mathematicians of the World, Unite!](#)

[Ramanujan's Notebooks](#)