The Mathematics Of Paul Erdos

The Simpsons and Their Mathematical SecretsIntroductory Graph TheoryHandbook of Floating-Point ArithmeticLetters to a Young MathematicianThirty Essays on Geometric Graph TheoryErdös on GraphsThe Man Who Knew InfinityCelebrate PassoverStudies in Pure MathematicsPoncelet's TheoremRecent Trends in CombinatoricsErdös CentennialCombinatorics, Geometry and ProbabilityN is a NumberBeyond InfinityMathematical PeopleAnalytic and Elementary Number TheoryThe Boy Who Loved MathSolving Mathematical ProblemsCombinatorial Set Theory: Partition Relations for CardinalsCelebrate HanukkahThe Mathematical Coloring BookReally Big NumbersThe Mathematics of Paul Erdős IProofs from THE BOOKThe Mathematics of Paul Erdös IHandbook of Combinatorics Volume 1A Tribute to Paul ErdosLattice PointsA Mathematician's LamentAsymptopiaThe Colorado Mathematical Olympiad: The Third Decade and Further ExplorationsTopics in the Theory of NumbersCombinatorics, Paul Erdős is EightyMy Brain is OpenNuclear StructurePaul Erdös and His MathematicsThe Man who Loved Only NumbersMasters of MathematicsThe Mathematics of Paul Erdős II

The Simpsons and Their Mathematical Secrets

In many applications of graph theory, graphs are regarded as geometric objects drawn in the plane or in some other surface. The traditional methods of "abstract" graph theory are often incapable of providing satisfactory answers to questions arising in such applications. In the past couple of decades, many powerful new combinatorial and topological techniques have been developed to tackle these problems. Today geometric graph theory is a burgeoning field with many striking results and appealing open questions. This contributed volume contains thirty original survey and research papers on important recent developments in geometric graph theory. The contributions were thoroughly reviewed and written by excellent researchers in this field.

Introductory Graph Theory

Poncelet's theorem is a famous result in algebraic geometry, dating to the early part of the nineteenth century. It concerns closed polygons inscribed in one conic and circumscribed about another. The theorem is of great depth in that it relates to a large and diverse body of mathematics. There are several proofs of the theorem, none of which is elementary. A particularly attractive feature of the theorem, which is easily understood but difficult to prove, is that it serves as a prism through which one can learn and appreciate a lot of beautiful mathematics. The author's original research in queuing theory and dynamical systems figures prominently in the book. This book stresses the modern approach to the subject and contains much material not previously available in book form. It also discusses the relation between Poncelet's theorem and some

aspects of queueing theory and mathematical billiards. The proof of Poncelet's theorem presented in this book relates it to the theory of elliptic curves and exploits the fact that such curves are endowed with a group structure. The book also treats the real and degenerate cases of Poncelet's theorem. These cases are interesting in themselves, and their proofs require some other considerations. The real case is handled by employing notions from dynamical systems. The material in this book should be understandable to anyone who has taken the standard courses in undergraduate mathematics. To achieve this, the author has included in the book preliminary chapters dealing with projective geometry, Riemann surfaces, elliptic functions, and elliptic curves. The book also contains numerous figures illustrating various geometric concepts.

Handbook of Floating-Point Arithmetic

Letters to a Young Mathematician

This is the most comprehensive survey of the mathematical life of the legendary Paul Erdős (1913-1996), one of the most versatile and prolific mathematicians of our time. For the first time, all the main areas of Erdős' research are covered in a single project. Because of overwhelming response from the mathematical community, the project now occupies over 1000 pages, arranged into two volumes. These volumes contain both high level research articles as well as key articles that survey some of the cornerstones of Erdős' work, each written by a leading world specialist in the field. A special chapter "Early Days", rare photographs, and art related to Erdős complement this striking collection. A unique contribution is the bibliography on Erdős' publications: the most comprehensive ever published. This new edition, dedicated to the 100th anniversary of Paul Erdős' birth, contains updates on many of the articles from the two volumes of the first edition, several new articles from prominent mathematicians, a new introduction, and more biographical information about Paul Erdős with an updated list of publications. The second volume contains chapters on graph theory and combinatorics, extremal and Ramsey theory, and a section on infinity that covers Erdős' research on set theory. All of these chapters are essentially updated, particularly the extremal theory chapter that contains a survey of flag algebras, a new technique for solving extremal problems.

Thirty Essays on Geometric Graph Theory

Mathematician Ian Stewart tells readers what he wishes he had known when he was a student. He takes up subjects ranging from the philosophical to the practical-what mathematics is and why it’s worth doing, the relationship between logic and proof, the role of beauty in mathematical thinking, the future of mathematics, how to deal with the peculiarities of the mathematical community, and many others.

Erdös on Graphs

In the American Mathematical Society's first-ever book for kids (and kids at heart), mathematician and author Richard Evan Schwartz leads math lovers of all ages on an innovative and strikingly illustrated journey through the infinite number system. By means of engaging, imaginative visuals and endearing narration, Schwartz manages the monumental task of presenting the complex concept of Big Numbers in fresh and relatable ways. The book begins with small, easily observable numbers before building up to truly gigantic ones, like a nonillion, a tredecillion, a googol, and even ones too huge for names! Any person, regardless of age, can benefit from reading this book. Readers will find themselves returning to its pages for a very long time, perpetually learning from and growing with the narrative as their knowledge deepens. Really Big Numbers is a wonderful enrichment for any math education program and is enthusiastically recommended to every teacher, parent and grandparent, student, child, or other individual interested in exploring the vast universe of numbers.

The Man Who Knew Infinity

This volume contains a collection of papers in Analytic and Elementary Number Theory in memory of Professor Paul Erdös, one of the greatest mathematicians of this century. Written by many leading researchers, the papers deal with the most recent advances in a wide variety of topics, including arithmetical functions, prime numbers, the Riemann zeta function, probabilistic number theory, properties of integer sequences, modular forms, partitions, and q-series. Audience: Researchers and students of number theory, analysis, combinatorics and modular forms will find this volume to be stimulating.

Celebrate Passover

“One of the best critiques of current mathematics education I have ever seen.”—Keith Devlin, math columnist on NPR’s Morning Edition A brilliant research mathematician who has devoted his career to teaching kids reveals math to be creative and beautiful and rejects standard anxiety-producing teaching methods. Witty and accessible, Paul Lockhart’s controversial approach will provoke spirited debate among educators and parents alike and it will alter the way we think about math forever. Paul Lockhart, has taught mathematics at Brown University and UC Santa Cruz. Since 2000, he has dedicated himself to K-12 level students at St. Ann’s School in Brooklyn, New York.

Studies in Pure Mathematics

Clear, lively style covers all basics of theory and application, including mathematical models, elementary graph theory,

transportation problems, connection problems, party problems, diagraphs and mathematical models, games and puzzles, more.

Poncelet's Theorem

A clear and well-organized review of what is presently known about nuclear structure. Emphasis is less upon mathematical detail than upon the obtaining of a clear perspective which relates the various lines of approach to this complex and rapidly developing field. Particular attention is paid to nuclear models and to the several types of nuclear reactions. Originally published in 1958. The Princeton Legacy Library uses the latest print-on-demand technology to again make available previously out-of-print books from the distinguished backlist of Princeton University Press. These editions preserve the original texts of these important books while presenting them in durable paperback and hardcover editions. The goal of the Princeton Legacy Library is to vastly increase access to the rich scholarly heritage found in the thousands of books published by Princeton University Press since its founding in 1905.

Recent Trends in Combinatorics

According to the great mathematician Paul Erdös, God maintains perfect mathematical proofs in The Book. This book presents the authors candidates for such "perfect proofs," those which contain brilliant ideas, clever connections, and wonderful observations, bringing new insight and surprising perspectives to problems from number theory, geometry, analysis, combinatorics, and graph theory. As a result, this book will be fun reading for anyone with an interest in mathematics.

Erdös Centennial

Contains solved and unsolved problems concerning lattice points, especially geometric, number theoretic, combinatorial, and analytic results, theories, and problems related to lattice points. Emphasis is on the geometry of numbers. Provides extensive comments on each problem, consisting mostly of heuristic arguments and intuitive descriptions. There are only a few proofs. Annotation copyrighted by Book News, Inc., Portland, OR

Combinatorics, Geometry and Probability

SHORTLISTED FOR THE 2017 ROYAL SOCIETY SCIENCE BOOK PRIZE Even small children know there are infinitely many whole numbers - start counting and you'll never reach the end. But there are also infinitely many decimal numbers between

zero and one. Are these two types of infinity the same? Are they larger or smaller than each other? Can we even talk about 'larger' and 'smaller' when we talk about infinity? In Beyond Infinity, international maths sensation Eugenia Cheng reveals the inner workings of infinity. What happens when a new guest arrives at your infinite hotel - but you already have an infinite number of guests? How does infinity give Zeno's tortoise the edge in a paradoxical foot-race with Achilles? And can we really make an infinite number of cookies from a finite amount of cookie dough? Wielding an armoury of inventive, intuitive metaphor, Cheng draws beginners and enthusiasts alike into the heart of this mysterious, powerful concept to reveal fundamental truths about mathematics, all the way from the infinitely large down to the infinitely small.

N is a Number

A collection of research papers on combinatorics, with a preface about Paul Erdös.

Beyond Infinity

Paul Erdös was one of the most influential mathematicians of the twentieth century, whose work in number theory, combinatorics, set theory, analysis, and other branches of mathematics has determined the development of large areas of these fields. In 1999, a conference was organized to survey his work, his contributions to mathematics, and the far-reaching impact of his work on many branches of mathematics. On the 100th anniversary of his birth, this volume undertakes the almost impossible task to describe the ways in which problems raised by him and topics initiated by him (indeed, whole branches of mathematics) continue to flourish. Written by outstanding researchers in these areas, these papers include extensive surveys of classical results as well as of new developments.

Mathematical People

You may have watched hundreds of episodes of The Simpsons (and its sister show Futurama) without ever realising that they contain enough maths to form an entire university course. In The Simpsons and Their Mathematical Secrets, Simon Singh explains how the brilliant writers, some of the mathematicians, have smuggled in mathematical jokes throughout the cartoon's twenty-five year history, exploring everything from to Mersenne primes, from Euler's equation to the unsolved riddle of P vs. NP, from perfect numbers to narcissistic numbers, and much more. With wit, clarity and a true fan's zeal, Singh analyses such memorable episodes as 'Bart the Genius' and 'Homer3' to offer an entirely new insight into the most successful show in television history.

Analytic and Elementary Number Theory

This work presents the most important combinatorial ideas in partition calculus and discusses ordinary partition relations for cardinals without the assumption of the generalized continuum hypothesis. A separate section of the book describes the main partition symbols scattered in the literature. A chapter on the applications of the combinatorial methods in partition calculus includes a section on topology with Arhangel'skii's famous result that a first countable compact Hausdorff space has cardinality, at most continuum. Several sections on set mappings are included as well as an account of recent inequalities for cardinal powers that were obtained in the wake of Silver's breakthrough result saying that the continuum hypothesis can not first fail at a singular cardinal of uncountable cofinality.

The Boy Who Loved Math

Since his death in 1996, many scientific meetings have been dedicated to the memory of Paul Erdös. From July 4 to 11, 1999, the conference "Paul Erdös and his Mathematics" was held in Budapest, with the ambitious goal of showing the whole range of Erdös' work - a difficult task in view of Erdös' versatility and his broad scope of interest in mathematics. According to this goal, the topics of lectures, given by the leading specialists of the subjects, included number theory, combinatorics, analysis, set theory, probability, geometry and areas connecting them, like ergodic theory. The conference has contributed to changing the common view that Erdös worked only in combinatorics and combinatorial number theory. In the present two volumes, the editors have collected, besides some personal reminiscences by Paul's old friends, mainly survey articles on his work, and on areas he initiated or worked in.

Solving Mathematical Problems

This book provides an exciting history of the discovery of Ramsey Theory, and contains new research along with rare photographs of the mathematicians who developed this theory, including Paul Erdös, B.L. van der Waerden, and Henry Baudet.

Combinatorial Set Theory: Partition Relations for Cardinals

This is the most comprehensive survey of the mathematical life of the legendary Paul Erdős (1913-1996), one of the most versatile and prolific mathematicians of our time. For the first time, all the main areas of Erdős' research are covered in a single project. Because of overwhelming response from the mathematical community, the project now occupies over 1000 pages, arranged into two volumes. These volumes contain both high level research articles as well as key articles that survey some of the cornerstones of Erdős' work, each written by a leading world specialist in the field. A special chapter "Early Days", rare photographs, and art related to Erdős complement this striking collection. A unique contribution is the

bibliography on Erdős' publications: the most comprehensive ever published. This new edition, dedicated to the 100th anniversary of Paul Erdős' birth, contains updates on many of the articles from the two volumes of the first edition, several new articles from prominent mathematicians, a new introduction, more biographical information about Paul Erdős, and an updated list of publications. The first volume contains the unique chapter "Early Days", which features personal memories of Paul Erdős by a number of his colleagues. The other three chapters cover number theory, random methods, and geometry. All of these chapters are essentially updated, most notably the geometry chapter that covers the recent solution of the problem on the number of distinct distances in finite planar sets, which was the most popular of Erdős' favorite geometry problems.

Celebrate Hanukkah

Number theory, the branch of mathematics that studies the properties of the integers, is a repository of interesting and quite varied problems, sometimes impossibly difficult ones. In this book, the authors have gathered together a collection of problems from various topics in number theory that they find beautiful, intriguing, and from a certain point of view instructive.

The Mathematical Coloring Book

Asymptotics in one form or another are part of the landscape for every mathematician. The objective of this book is to present the ideas of how to approach asymptotic problems that arise in discrete mathematics, analysis of algorithms, and number theory. A broad range of topics is covered, including distribution of prime integers, Erdős Magic, random graphs, Ramsey numbers, and asymptotic geometry. The author is a disciple of Paul Erdős, who taught him about Asymptopia. Primes less than , graphs with vertices, random walks of steps--Erdős was fascinated by the limiting behavior as the variables approached, but never reached, infinity. Asymptotics is very much an art. The various functions , , , , all have distinct personalities. Erdős knew these functions as personal friends. It is the author's hope that these insights may be passed on, that the reader may similarly feel which function has the right temperament for a given task. This book is aimed at strong undergraduates, though it is also suitable for particularly good high school students or for graduates wanting to learn some basic techniques. Asymptopia is a beautiful world. Enjoy!

Really Big Numbers

Now in its third decade, the Colorado Mathematical Olympiad (CMO), founded by the author, has become an annual state-wide competition, hosting many hundreds of middle and high school contestants each year. This book presents a year-by-

year history of the CMO from 2004–2013 with all the problems from the competitions and their solutions. Additionally, the book includes 10 further explorations, bridges from solved Olympiad problems to ‘real’ mathematics, bringing young readers to the forefront of various fields of mathematics. This book contains more than just problems, solutions, and event statistics — it tells a compelling story involving the lives of those who have been part of the Olympiad, their reminiscences of the past and successes of the present. I am almost speechless facing the ingenuity and inventiveness demonstrated in the problems proposed in the third decade of these Olympics. However, equally impressive is the drive and persistence of the originator and living soul of them. It is hard for me to imagine the enthusiasm and commitment needed to work singlehandedly on such an endeavor over several decades. —Branko Grünbaum, University of Washingtonp/ppiAfter decades of hunting for Olympiad problems, and struggling to create Olympiad problems, he has become an extraordinary connoisseur and creator of Olympiad problems. The Olympiad problems were very good, from the beginning, but in the third decade the problems have become extraordinarily good. Every brace of 5 problems is a work of art. The harder individual problems range in quality from brilliant to work-of-genius The same goes for the “Further Explorations” part of the book. Great mathematics and mathematical questions are immersed in a sauce of fascinating anecdote and reminiscence. If you could have only one book to enjoy while stranded on a desert island, this would be a good choice. /ii/i/p—Peter D. Johnson, Jr., Auburn Universitysup/sup/ppiLike Gauss, Alexander Soifer would not hesitate to inject Eureka! at the right moment. Like van der Waerden, he can transform a dispassionate exercise in logic into a compelling account of sudden insights and ultimate triumph./ii/i/pp— Cecil Rousseau Chair, USA Mathematical Olympiad Committee/ppiA delightful feature of the book is that in the second part more related problems are discussed. Some of them are still unsolved./ii/i/pp—Paul Erdős/ppiThe book is a gold mine of brilliant reasoning with special emphasis on the power and beauty of coloring proofs. Strongly recommended to both serious and recreational mathematicians on all levels of expertise./i/p —Martin Gardner

The Mathematics of Paul Erdős I

This offering from the Holidays around the World series introduces children to the Jewish Festival of Lights. Heiligman recounts the holiday's history and origins and describes how it is celebrated today--with candles, special foods such as potato latkes, and games such as dreidel. The main text is succinct and appropriate for reading aloud.

Proofs from THE BOOK

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 indispensible 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 Mathematics of Paul Erdös I

This unique collection contains extensive and in-depth interviews with mathematicians who have shaped the field of mathematics in the twentieth century. Collected by two mathematicians respected in the community for their skill in communicating mathematical topics to a broader audience, the book is also rich with photographs and includes an introdu

Handbook of Combinatorics Volume 1

In 1992, when Paul Erdos was awarded a Doctor Honoris Causa by Charles University in Prague, a small conference was held, bringing together a distin guished group of researchers with interests spanning a variety of fields related to Erdos' own work. At that gathering, the idea occurred to several of us that it might be quite appropriate at this point in Erdos' career to solicit a col lection of articles illustrating various aspects of Erdos' mathematical life and work. The response to our solicitation was immediate and overwhelming, and these volumes are the result. Regarding the organization, we found it convenient to arrange the papers into six chapters, each mirroring Erdos' holistic approach to mathematics. Our goal was not merely a (random) collection of papers but rather a thor oughly edited volume composed in large part by articles explicitly solicited to illustrate interesting aspects of Erdos and his life and work. Each chap ter includes an introduction which often presents a sample of related ErdOs' problems "in his own words". All these (sometimes lengthy) introductions were written jointly by editors. We wish to thank the nearly 70 contributors for their outstanding efforts (and their patience). In particular, we are grateful to Bela Bollobas for his extensive documentation of Paul Erdos' early years and mathematical high points (in the first part of this volume); our other authors are acknowledged in their respective chapters. We also want to thank A. Bondy, G. Hahn, I.

A Tribute to Paul Erdos

Most people think of mathematicians as solitary, working away in isolation. And, it's true, many of them do. But Paul Erdos

never followed the usual path. At the age of four, he could ask you when you were born and then calculate the number of seconds you had been alive in his head. But he didn't learn to butter his own bread until he turned twenty. Instead, he traveled around the world, from one mathematician to the next, collaborating on an astonishing number of publications. With a simple, lyrical text and richly layered illustrations, this is a beautiful introduction to the world of math and a fascinating look at the unique character traits that made "Uncle Paul" a great man. The Boy Who Loved Math by Deborah Heiligman is a Kirkus Reviews Best Book of 2013 and a New York Times Book Review Notable Children's Book of 2013.

Lattice Points

Describes the traditions and customs associated with the celebration of Passover.

A Mathematician's Lament

A man with no home and no job, Paul Erdos was the most prolific mathematician who ever lived. Born in Hungary in 1913, Erdos wrote and co-authored over 1,500 papers and pioneered several fields in theoretical mathematics. At the age of 83 he still spent most of his time on the road, going from math meeting to math meeting, continually working on problems. He died on September 20, 1996 while attending such a meeting in Warsaw, Poland. N is a number: a portrait of Paul Erdos was filmed between 1988 and 1991. The film opens at Cambridge University's 1991 honorary doctorate ceremony, where Erdos received an award he says he would gladly trade for a "nice new proof." For Erdos, the meaning of life is "to prove and conjecture. "In an age dominated by technical wizardry and high tech communications, Erdos was an unusual human link connecting hundreds of people. As he traveled from country to country, Erdos carried with him the latest in mathematical thinking, inspiring others to develop new ideas and, sometimes, entire new fields. In turn, the mathematical community supported this repository of centuries of mathematical knowledge and lore. Every mathematician in the world has an "Erdos Number"-the number of people he or she is removed from having co-authored a paper with Erdos. To pursue this life of wandering and pure scholarship, Erdos relied on a network of other renowned mathematicians-all of whom regarded him as an international treasure. Wherever he touched down, whether in Hungary, Australia or Kalamazoo, Erdos immediately began working on problems with his colleagues. They, in turn, took care of his everyday needs. Ronald Graham, director of the Mathematical Sciences Research Center at ATandT Laboratories, keeps an "Erdos Room" at his home in New Jersey. From here, Graham managed Erdos's financial affairs and coordinated his travels and lectures, trying to maintain a semblance of order in the life of a man who kept no bank accounts and gave money to anyone he felt needed it. In Cambridge, England, Bela Bollobas, an ex-Erdos student, provided another oasis. As the film progresses it becomes clear that mathematicians around the world had more than a professional stake in caring for Erdos. In different ways, each of the many prominent mathematicians in the film expresses dedication to and love for Erdos. The structure of N is a Number is

based on Erdos's 50 years of perpetual wandering, "like a bumblebee," carrying news and mathematical information from uni

Asymptopia

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.

The Colorado Mathematical Olympiad: The Third Decade and Further Explorations

This volume is dedicated to Paul Erdos, who profoundly influenced mathematics in the twentieth century, with over 1200 papers in number theory, complex analysis, probability theory, geometry, interpretation theory, algebra set theory and combinatorics. One of Erdos' hallmarks was the host of stimulating problems and conjectures, to many of which he attached monetary prices, in accordance with their notoriety. A feature of this volume is a collection of some 50 outstanding unsolved problems, together with their 'value'! Eminent mathematicians from around the world have contributed articles to this volume that reflect the diversity of Erdos' interests, and it will be a fund of insight for number theorists, combinatorialists, set theorists and analysts.

Topics in the Theory of Numbers

Floating-point arithmetic is the most widely used way of implementing real-number arithmetic on modern computers. However, making such an arithmetic reliable and portable, yet fast, is a very difficult task. As a result, floating-point arithmetic is far from being exploited to its full potential. This handbook aims to provide a complete overview of modern floating-point arithmetic. So that the techniques presented can be put directly into practice in actual coding or design, they are illustrated, whenever possible, by a corresponding program. The handbook is designed for programmers of numerical applications, compiler designers, programmers of floating-point algorithms, designers of arithmetic operators, and more generally, students and researchers in numerical analysis who wish to better understand a tool used in their daily work and research.

Combinatorics, Paul Erdős is Eighty

A panorama of combinatorics by the world's experts.

My Brain is Open

Traces the eccentric life of legendary mathematician Paul Erdos, a wandering genius who fled his native Hungary during the Holocaust and helped devise the mathematical basis of computer science.

Nuclear Structure

Handbook of Combinatorics, Volume 1 focuses on basic methods, paradigms, results, issues, and trends across the broad spectrum of combinatorics. The selection first elaborates on the basic graph theory, connectivity and network flows, and matchings and extensions. Discussions focus on stable sets and claw free graphs, nonbipartite matching, multicommodity flows and disjoint paths, minimum cost circulations and flows, special proof techniques for paths and circuits, and Hamilton paths and circuits in digraphs. The manuscript then examines coloring, stable sets, and perfect graphs and embeddings and minors. The book takes a look at random graphs, hypergraphs, partially ordered sets, and matroids. Topics include geometric lattices, structural properties, linear extensions and correlation, dimension and posets of bounded degree, hypergraphs and set systems, stability, transversals, and matchings, and phase transition. The manuscript also reviews the combinatorial number theory, point lattices, convex polytopes and related complexes, and extremal problems in combinatorial geometry. The selection is a valuable reference for researchers interested in combinatorics.

Paul Erdös and His Mathematics

Authored by a leading name in mathematics, this engaging and clearly presented text leads the reader through the tactics involved in solving mathematical problems at the Mathematical Olympiad level. With numerous exercises and assuming only basic mathematics, this text is ideal for students of 14 years and above in pure mathematics.

The Man who Loved Only Numbers

This book is a tribute to Paul Erdos, the wandering mathematician once described as the "prince of problem solvers and the absolute monarch of problem posers." It examines the legacy of open problems he left to the world after his death in 1996.

Masters of Mathematics

This volume, written by his friends, collaborators and students, is offered to the memory of Paul Tunin. Most of the papers they contributed discuss subjects related to his own fields of research. The wide range of topics reflects the versatility of his

mathematical activity. His work has inspired many mathematicians in analytic number theory, theory of functions of a complex variable, interpolation and approximation theory, numerical algebra, differential equations, statistical group theory and theory of graphs. Beyond the influence of his deep and important results he had the exceptional ability to communicate to others his enthusiasm for mathematics. One of the strengths of Turan was to ask unusual questions that became starting points of many further results, sometimes opening up new fields of research. We hope that this volume will illustrate this aspect of his work adequately. Born in Budapest, on August 28, 1910, Paul Turan obtained his Ph. D. under L. Fejer in 1935. His love for mathematies enabled him to work even under inhuman circumstances during the darkest years of the Second World War. One of his major achievements, his power sum method originated in this period. After the war he was visiting professor in Denmark and in Princeton. In 1949 he became professor at the Eotvos Lorand University of Budapest, a member of the Hungarian Academy of Sciences and a leading figure of the Hungarian mathematical community.

The Mathematics of Paul Erdős II

The original title for this work was “Mathematical Literacy, What Is It and Why You Need it”. The current title reflects that there can be no real learning in any subject, unless questions of who, what, when, where, why and how are raised in the minds of the learners. The book is not a mathematical text, and there are no assigned exercises or exams. It is written for reasonably intelligent and curious individuals, both those who value mathematics, aware of its many important applications and others who have been inappropriately exposed to mathematics, leading to indifference to the subject, fear and even loathing. These feelings are all consequences of meaningless presentations, drill, rote learning and being lost as the purpose of what is being studied. Mathematics education needs a radical reform. There is more than one way to accomplish this. Here the author presents his approach of wrapping mathematical ideas in a story. To learn one first must develop an interest in a problem and the curiosity to find how masters of mathematics have solved them. What is necessary to be mathematically literate? It’s not about solving algebraic equations or even making a geometric proof. These are valuable skills but not evidence of literacy. We often seek answers but learning to ask pertinent questions is the road to mathematical literacy. Here is the good news: new mathematical ideas have a way of finding applications. This is known as “the unreasonable effectiveness of mathematics.”