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Complex Numbers Made Simple *Complex Numbers from A to ...Z* **Introduction to the Geometry of Complex Numbers Journey from Natural Numbers to Complex Numbers** *Geometry of Complex Numbers* **The Doctrine of Chances Complex Numbers** *Technical Mathematics* **Calculus with Complex Numbers** *Complex Numbers from A to ... Z John and Betty's Journey Through Complex Numbers Complex Analysis* **Introductory Complex Analysis Adventures in Mathematics** Krishna's Series Trigonometry and Algebra: For the Degree Part First Students of C.C.S. University, Meerut and all other Indian Universities and for various Competitive Examination like I.A.S., P.C.S., etc. **Precalculus, Enhanced Edition A First Course in Complex Analysis with Applications Linear Algebra** *Encounters with Chaos and Fractals, Second Edition An Imaginary Tale Complex Variables Mathematics Class 11 - [Chhattisgarh & MP Board] Introductory Mathematics for Engineering Applications* **Learn Python in 7 Days Elementary Matrix Algebra Number Systems Comprehensive Mathematics XI** Conformal Mapping *A Math Primer for Engineers* Visual Complex Analysis **44 Years IIT-JEE Mathematics Chapter Wise Solved Papers (1978-2021) by Career Point Kota Understanding Information Transmission** Intermediate Algebra A Readable Introduction to Real Mathematics **Mathematics of the Discrete Fourier Transform (DFT) Calculus Mathematics** Analytic Trigonometry with Applications Trigonometry **Matrix Theory**

Adventures in Mathematics Sep 20 2021 Though elementary in nature, this book deals with fundamental issues in mathematics OCo number, algebra, geometry (both Euclidean and non-Euclidean) and topology. These subjects, on an advanced level, are the same ones with which much of current mathematical research is concerned and were themselves research topics of earlier periods. The material is very suitable both for advanced high school students and for college students interested in elementary mathematics from a higher standpoint. It will also be very useful to high school teachers seeking an overview of their subject matter. Contents: What is a Number?: The Positive Integers; The Integers; The Rational Numbers; The Real Numbers; The Integers Revisited; The Complex Numbers; Polynomials and Other Analogues of the Integers; The Algebra on a Dial; Groups, Finite Fields and Linear Algebra: Introduction to Groups and Their Actions; Applications to Finite Fields and the Theory of Numbers; Linear Algebra; Two- and Three-Dimensional Geometry and Topology: The Euclidean Case; Elliptic and Hyperbolic Geometry; Some Two- and Three-Dimensional Topology. Readership: High school and college teachers and students; college pre-calculus teachers and students; general readers with an interest in mathematics but a limited background."

Visual Complex Analysis May 05 2020 This radical approach to complex analysis replaces the standard calculational arguments with new geometric ones. Using several hundred diagrams this is a new visual approach to the topic.

Geometry of Complex Numbers Jun 29 2022 Illuminating, widely praised book on analytic geometry of circles, the Moebius transformation, and 2-dimensional non-Euclidean geometries.

Complex Variables Feb 11 2021 Topics include the complex plane, basic properties of analytic functions, analytic functions as mappings, analytic and harmonic functions in applications, transform methods. Hundreds of solved examples, exercises, applications. 1990 edition. Appendices.

A Math Primer for Engineers Jun 05 2020 Mathematics and engineering are inevitably interrelated, and this interaction will steadily increase as the use of mathematical modelling grows. Although mathematicians and engineers often misunderstand one another, their basic approach is quite similar, as is the historical development of their respective disciplines. The purpose of this Math Primer is to provide a brief introduction to those parts of mathematics which are, or could be, useful in engineering, especially bioengineering. The aim is to summarize the ideas covered in each subject area without going into exhaustive detail. Formulas and equations have not been avoided, but every effort has been made to keep them simple in the hope of persuading readers that they are not only useful but also accessible. The wide range of topics covered includes introductory material such as numbers and sequences, geometry in two and three dimensions, linear algebra, and the calculus. Building on these foundations, linear spaces, tensor analysis and Fourier analysis are introduced. All these concepts are used to solve problems for ordinary and partial differential equations. Illustrative applications are taken from a variety of engineering disciplines, and the choice of a suitable model is considered from the point of view of both the mathematician and the engineer. This book will be of interest to engineers and bioengineers looking for the mathematical means to help further their work, and it will offer readers a glimpse of many ideas which may spark their interest.

Conformal Mapping Jul 07 2020 DIVTheoretical and practical approach covers functions of a complex variable and conformal mapping. Only prerequisite is advanced calculus. /div

Calculus Oct 29 2019 Spivak's celebrated Calculus is ideal for mathematics majors seeking an alternative to doorstop textbooks and formidable introductions to real analysis.

Comprehensive Mathematics XI Aug 08 2020

Understanding Information Transmission Mar 03 2020 Understanding Information Transmission introduces you to the entire field of information technology. In this consumer handbook and introductory student resource, seven chapters span the gamut of the field—the nature, storage, transmission, networking, and protection of information. In addition to the science and technology, this book brings the subject alive by presenting the amazing history of information technology, profiling incredible inventions and fascinating inventors, and their dramatic impact on society. Features include problem sets, key points, suggested reading, review appendices, and a full chapter on mathematical methods. Private and public funding of information technology continues to grow at staggering rates. Learn what's behind this race to be the biggest, brightest, and fastest in the field with Understanding Information Transmission.

Mathematics of the Discrete Fourier Transform (DFT) Nov 30 2019 "The DFT can be understood as a numerical approximation to the Fourier transform. However, the DFT has its own exact Fourier theory, and that is the focus of this book. The DFT is normally encountered as the Fast Fourier Transform (FFT)--a high-speed algorithm for computing the DFT. The FFT is used extensively in a wide range of digital signal processing applications, including spectrum analysis, high-speed convolution (linear filtering), filter banks, signal detection and estimation, system identification, audio compression (such as MPEG-II AAC), spectral modeling sound synthesis, and many others. In this book, certain topics in digital audio signal processing are introduced as example applications of the DFT"--Back cover

Encounters with Chaos and Fractals, Second Edition Apr 15 2021 Now with an extensive introduction to fractal geometry Revised and updated, Encounters with Chaos and Fractals, Second Edition provides an accessible introduction to chaotic dynamics and fractal geometry for readers with a calculus background. It incorporates important mathematical concepts associated with these areas and backs up the definitions and results with motivation, examples, and applications. Laying the groundwork for later chapters, the text begins with examples of mathematical behavior exhibited by chaotic systems, first in one dimension and then in two and three dimensions. Focusing on fractal geometry, the author goes on to introduce famous infinitely complicated fractals. He analyzes them and explains how to obtain computer renditions of them. The book concludes with the famous Julia sets and the Mandelbrot set. With more than enough material for a one-semester course, this book gives readers an appreciation of the beauty and diversity of applications of chaotic dynamics and fractal geometry. It shows how these subjects continue to grow within mathematics and in many other disciplines.

Complex Numbers from A to ... Z Jan 25 2022 * Learn how complex numbers may be used to solve algebraic equations, as well as their geometric interpretation * Theoretical aspects are augmented with rich exercises and problems at various levels of difficulty * A special feature is a selection of outstanding Olympiad problems solved by employing the methods presented * May serve as an engaging supplemental text for an introductory undergrad course on complex numbers or number theory

Introduction to the Geometry of Complex Numbers Sep 01 2022 Geared toward readers unfamiliar with complex numbers, this text explains how to solve problems that frequently arise in the applied sciences and emphasizes constructions related to algebraic operations. 1956 edition.

Analytic Trigonometry with Applications Aug 27 2019 Barnett, Analytic Trigonometry is a text that students can actually read, understand, and apply. Concept development moves from the concrete to abstract to engage the student. Almost every concept is illustrated by an example followed by a matching problem allowing students to practice knowledge precisely when they acquire it. To gain student interest quickly, the text moves directly into trigonometric concepts and applications and reviews essential material from prerequisite courses only as needed. Extensive chapter review summaries, chapter and cumulative review exercises with answers keyed to the corresponding text sections, effective use of color comments and annotations, and prominent displays of important material all help the student master the subject. Analytic Trigonometry 11th edition includes updated applications from a range of different fields to convince all students that trigonometry is really useful. The seamless integration of Barnett, Analytical Trigonometry 11th edition with WileyPLUS, a research-based, online environment for effective teaching and learning, builds student confidence in mathematics because it takes the guesswork out of studying by providing them with a clear roadmap: what to do, how to do it, and whether they did it right. WileyPLUS sold separately from text.

Intermediate Algebra Jan 31 2020 Kaufmann and Schwitters have built this text's reputation on clear and concise exposition, numerous examples, and plentiful problem sets. This traditional text consistently reinforces the following common thread: learn a skill; practice the skill to help solve equations; and then apply what you have learned to solve application problems. This simple, straightforward approach has helped many students grasp and apply fundamental problem-solving skills necessary for future mathematics courses. Algebraic ideas are developed in a logical sequence, and in an easy-to-read manner, without excessive vocabulary and formalism. The open and uncluttered design helps keep students focused on the concepts while minimizing distractions. Problems and examples reference a broad range of topics, as well as career areas such as electronics, mechanics, and health, showing students that mathematics is part of everyday life. The text's resource package--anchored by Enhanced WebAssign, an online homework management tool--saves instructors time while providing additional help and skill-building practice for students outside of class. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

The Doctrine of Chances May 29 2022 A history of the men in the author's family. Describes their pains and joys as they become American.

Krishna's Series Trigonometry and Algebra: For the Degree Part First Students of C.C.S. University, Meerut and all other Indian Universities and for various Competitive Examination like I.A.S., P.C.S., etc. Aug 20 2021

Complex Analysis Nov 22 2021 Now in its fourth edition, the first part of this book is devoted to the basic material of complex analysis, while the second covers many special topics, such as the Riemann Mapping Theorem, the gamma function, and analytic continuation. Power series methods are used more systematically than is found in other texts, and the resulting proofs often shed more light on the results than the standard proofs. While the first part is suitable for an introductory course at undergraduate level, the additional topics covered in the second part give the instructor of a gradute course a great deal of flexibility in structuring a more advanced course.

Complex Numbers from A to ...Z Oct 02 2022 * Learn how complex numbers may be used to solve algebraic equations, as well as their geometric interpretation * Theoretical aspects are augmented with rich exercises and problems at various levels of difficulty * A special feature is a selection of outstanding Olympiad problems solved by employing the methods presented * May serve as an engaging supplemental text for an introductory undergrad course on complex numbers or number theory

Mathematics Sep 28 2019

Introductory Complex Analysis Oct 22 2021 A shorter version of A. I. Markushevich's masterly three-volume Theory of Functions of a Complex Variable, this edition is appropriate for advanced undergraduate and graduate courses in complex analysis. Numerous worked-out examples and more than 300 problems, some with hints and answers, make it suitable for independent study. 1967 edition.

Number Systems Sep 08 2020 This book offers a rigorous and coherent introduction to the five basic number systems of mathematics, namely natural numbers, integers, rational numbers, real numbers, and complex numbers. It is a subject that many mathematicians believe should be learned by any student of mathematics including future teachers. The book starts with the development of Peano arithmetic in the first chapter which includes mathematical induction and elements of recursion theory. It proceeds to an examination of integers that also covers rings and ordered integral domains. The presentation of rational numbers includes material on ordered fields and convergence of sequences in these fields. Cauchy and Dedekind completeness properties of the field of real numbers are established, together with some properties of real continuous functions. An elementary proof of the Fundamental Theorem of Algebra is the highest point of the chapter on complex numbers. The great merit of the book lies in its extensive list of exercises following each chapter. These exercises are designed to assist the instructor and to enhance the learning experience of the students.

Elementary Matrix Algebra Oct 10 2020 This treatment starts with basics and progresses to sweepout process for obtaining complete solution of any given system of linear equations and role of matrix algebra in presentation of useful geometric ideas, techniques, and terminology.

A Readable Introduction to Real Mathematics Jan 01 2020 Designed for an undergraduate course or for independent study, this text presents sophisticated mathematical ideas in an elementary and friendly fashion. The fundamental purpose of this book is to teach mathematical thinking while conveying the beauty and elegance of mathematics. The book contains a large number of exercises of varying difficulty, some of which are designed to help reinforce basic concepts and others of which will challenge virtually all readers. The sole prerequisite for reading this text is high school algebra. Topics covered include: * mathematical induction * modular arithmetic * the Fundamental Theorem of Arithmetic * Fermat's Little Theorem * RSA encryption * the Euclidean algorithm * rational and irrational numbers * complex numbers * cardinality * Euclidean plane geometry * constructibility (including a proof that an angle of 60 degrees cannot be trisected with a straightedge and compass)* infinite series * higher dimensional spaces. This textbook is suitable for a wide variety of courses and for a broad range of students of mathematics and other subjects. Mathematically inclined senior high school students will also be able to read this book. From the reviews of the first edition: "It is carefully written in a precise but readable and engaging style... I thoroughly enjoyed reading this recent addition to the Springer Undergraduate Texts in Mathematics series and commend this clear, well-organised, unfussy text to its target audiences." (Nick Lord, The Mathematical Gazette, Vol. 100 (547), 2016) "The book is an introduction to real mathematics and is very readable. ... The book is indeed a joy to read, and would be an excellent text for an 'appreciation of mathematics' course, among other possibilities." (G.A. Heuer, Mathematical Reviews, February, 2015) "Many a benighted book misguidedly addresses the need [to teach mathematical thinking] by framing reasoning, or narrowly, proof, not as pervasive modality but somehow as itself an autonomous mathematical subject. Fortunately, the present book gets it right.... [presenting] well-chosen, basic, conceptual mathematics, suitably accessible after a K-12 education, in a detailed, self-conscious way that emphasizes methodology alongside content and crucially leads to an ultimate clear payoff. ... Summing Up: Recommended. Lower-division undergraduates and two-year technical program students; general readers." (D.V. Feldman, Choice, Vol. 52 (6), February, 2015)

Technical Mathematics Mar 27 2022 This textbook has been in constant use since 1980, and this edition represents the first major revision of this text since the second edition. It was time to select, make hard choices of material, polish, refine, and fill in where needed. Much has been rewritten to be even cleaner and clearer, new features have been introduced, and some peripheral topics have been removed. The authors continue to provide real-world, technical applications that promote intuitive reader learning. Numerous fully worked examples and boxed and numbered formulas give students the essential practice they need to learn mathematics. Computer projects are given when appropriate, including BASIC, spreadsheets, computer algebra

systems, and computer-assisted drafting. The graphing calculator has been fully integrated and calculator screens are given to introduce computations. Everything the technical student may need is included, with the emphasis always on clarity and practical applications.

Journey from Natural Numbers to Complex Numbers Jul 31 2022 This book is for those interested in number systems, abstract algebra, and analysis. It provides an understanding of negative and fractional numbers with theoretical background and explains rationale of irrational and complex numbers in an easy to understand format. This book covers the fundamentals, proof of theorems, examples, definitions, and concepts. It explains the theory in an easy and understandable manner and offers problems for understanding and extensions of concept are included. The book provides concepts in other fields and includes an understanding of handling of numbers by computers. Research scholars and students working in the fields of engineering, science, and different branches of mathematics will find this book of interest, as it provides the subject in a clear and concise way.

Trigonometry Jul 27 2019 Trigonometry, 4th Edition brings together all the elements that have allowed instructors and learners to successfully "bridge the gap" between classroom instruction and independent homework by overcoming common learning barriers and building confidence in students' ability to do mathematics. Written in a clear voice that speaks to students and mirrors how instructors communicate in lecture, Young's hallmark pedagogy enables students to become independent, successful learners. Varied exercise types and modeling projects keep the learning fresh and motivating. Young continues her tradition of fostering a love for succeeding in mathematics by introducing inquiry-based learning projects in this edition, providing learners an opportunity to master the material with more freedom while reinforcing mathematical skills and intuition.

Introductory Mathematics for Engineering Applications Dec 12 2020 Introductory Mathematics for Engineering Applications, 2nd Edition, provides first-year engineering students with a practical, applications-based approach to the subject. This comprehensive textbook covers pre-calculus, trigonometry, calculus, and differential equations in the context of various discipline-specific engineering applications. The text offers numerous worked examples and problems representing a wide range of real-world uses, from determining hydrostatic pressure on a retaining wall to measuring current, voltage, and energy stored in an electrical capacitor. Rather than focusing on derivations and theory, clear and accessible chapters deliver the hands-on mathematical knowledge necessary to solve the engineering problems students will encounter in their careers. The textbook is designed for courses that complement traditional math prerequisites for introductory engineering courses — enabling students to advance in their engineering curriculum without first completing calculus requirements. Now available in enhanced ePub format, this fully updated second edition helps students apply mathematics to engineering scenarios involving physics, statics, dynamics, strength of

materials, electric circuits, and more.

Precalculus, Enhanced Edition Jul 19 2021 Written by David Cohen and co-authors Theodore B. Lee and David Sklar, PRECALCULUS, Seventh Edition, focuses on the use of a graphical perspective to provide a visual understanding of college algebra and trigonometry. Cohen's texts are known for their clear writing style and outstanding, graded exercises and applications, including many examples and exercises involving applications and real-life data. Graphs, visualization of data, and functions are introduced and emphasized early on to aid student understanding. Although the text provides thorough treatment of the graphing calculator, the material is arranged to allow instructors to teach the course with as much or as little graphing utility work as they wish. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Mathematics Class 11 - [Chhattisgarh & MP Board] Jan 13 2021 Unit I : Sets and Functions 1.Sets, 2. Relations and Functions,3. Trigonometric Functions, Unit II : Algebra 4.Principles of Mathematical Induction, 5 .Complex Numbers and Quadratic Equations, 6. Linear Inequalities, 7. Permutations and Combinations, 8. Binomial Theorem,9. Sequences and Series, Unit III : Co-ordinate Geometry 10.Straight Lines, 11. Conic Sections, 12. Introduction to Three Dimensional Geometry, Unit IV : Calculus 13.Limits and Derivatives, Unit V : Mathematical Reasoning 14.Mathematical Reasoning, Unit VI : Statistics and Probability 15.Statistics,16. Probability, Appendix : Value Based Questions(VBQ) Chapterwise Objective Type Questions

A First Course in Complex Analysis with Applications Jun 17 2021 The new Second Edition of A First Course in Complex Analysis with Applications is a truly accessible introduction to the fundamental principles and applications of complex analysis. Designed for the undergraduate student with a calculus background but no prior experience with complex variables, this text discusses theory of the most relevant mathematical topics in a student-friendly manor. With Zill's clear and straightforward writing style, concepts are introduced through numerous examples and clear illustrations. Students are guided and supported through numerous proofs providing them with a higher level of mathematical insight and maturity. Each chapter contains a separate section on the applications of complex variables, providing students with the opportunity to develop a practical and clear understanding of complex analysis.

44 Years IIT-JEE Mathematics Chapter Wise Solved Papers (1978-2021) by Career Point Kota Apr 03 2020 Whenever a student decides to prepare for any examination, her/his first and foremost curiosity arises about the type of questions that he/she has to face. This becomes more important in the context of JEE Advanced where there is neck-to-neck race. For this purpose, we feel great pleasure to present this book before you. We have made an attempt to provide 44 Years IIT-JEE Mathematics chapter wise questions asked in IIT-JEE /JEE Advanced from 1978 to 2021 along with their solutions. Features Topic-wise collection of past JEE-Advanced question papers (1978-2021).

Each chapter divides the questions into categories (as per the latest JEE Advanced pattern) - MCQ single correct answer, MCQ with multiple correct answers, Passage Based, Assertion-Reason, Integer Answer, Fill in the Blanks, True/False and Subjective Questions. Solutions have been given with enough diagrams, proper reasoning for better understanding. Students must attempt these questions immediately after they complete unit in their class/school/home during their preparation. Chapters : 44 Years IIT-JEE Mathematics Solved Papers (1978-2021) 1. Logarithm and their Properties 2. Theory of Equations 3. Sequences & Series 4. Complex Numbers 5. Permutation & Combination 6. BinomialTheorem 7. Probability 8. Determinants 9. Matrices 10. Functions 11. Limits 12. Continuity & Differentiability 13. Differentiation 14. Tangent & Normal 15. Monotonicity 16. Maxima & Minima 17. Indefinite Integration 18. Definite Integration 19. Area under the curve 20. Differential Equation 21. Point & Straight Lines 22. Circle 23. Parabola 24. Ellipse 25. Hyperbola 26. Vectors 27. Three Dimensional Geometry 28. Trigonometric ratio & Identities 29. Trigonometric Equations 30. Inverse Trigonometric Functions 31. Properties of Triangles 32. Height & Distance 33. Mathematical Induction 34. Miscellaneous 35. Model Test Papers

Complex Numbers Made Simple Nov 03 2022 Complex Numbers lie at the heart of most technical and scientific subjects. This book can be used to teach complex numbers as a course text,a revision or remedial guide, or as a self-teaching work. The author has designed the book to be a flexible learning tool, suitable for A-Level students as well as other students in higher and further education whose courses include a substantial maths component (e.g. BTEC or GNVQ science and engineering courses). Verity Carr has accumulated nearly thirty years of experience teaching mathematics at all levels and has a rare gift for making mathematics simple and enjoyable. At Brooklands College, she has taken a leading role in the development of a highly successful Mathematics Workshop. This series of Made Simple Maths books widens her audience but continues to provide the kind of straightforward and logical approach she has developed over her years of teaching.

Matrix Theory Jun 25 2019 In 1990, the National Science Foundation recommended that every college mathematics curriculum should include a second course in linear algebra. In answer to this recommendation, Matrix Theory: From Generalized Inverses to Jordan Form provides the material for a second semester of linear algebra that probes introductory linear algebra concepts whil

An Imaginary Tale Mar 15 2021 Today complex numbers have such widespread practical use--from electrical engineering to aeronautics--that few people would expect the story behind their derivation to be filled with adventure and enigma. In An Imaginary Tale, Paul Nahin tells the 2000-year-old history of one of mathematics' most elusive numbers, the square root of minus one, also known as i. He recreates the baffling mathematical problems that conjured it up, and the colorful characters who tried to solve them. In 1878, when two

brothers stole a mathematical papyrus from the ancient Egyptian burial site in the Valley of Kings, they led scholars to the earliest known occurrence of the square root of a negative number. The papyrus offered a specific numerical example of how to calculate the volume of a truncated square pyramid, which implied the need for i. In the first century, the mathematician-engineer Heron of Alexandria encountered I in a separate project, but fudged the arithmetic; medieval mathematicians stumbled upon the concept while grappling with the meaning of negative numbers, but dismissed their square roots as nonsense. By the time of Descartes, a theoretical use for these elusive square roots--now called "imaginary numbers"--was suspected, but efforts to solve them led to intense, bitter debates. The notorious i finally won acceptance and was put to use in complex analysis and theoretical physics in Napoleonic times. Addressing readers with both a general and scholarly interest in mathematics, Nahin weaves into this narrative entertaining historical facts and mathematical discussions, including the application of complex numbers and functions to important problems, such as Kepler's laws of planetary motion and ac electrical circuits. This book can be read as an engaging history, almost a biography, of one of the most evasive and pervasive "numbers" in all of mathematics. Some images inside the book are unavailable due to digital copyright restrictions.

Linear Algebra May 17 2021 Developed from the author's successful two-volume Calculus text this book presents Linear Algebra without emphasis on abstraction or formalization. To accommodate a variety of backgrounds, the text begins with a review of prerequisites divided into precalculus and calculus prerequisites. It continues to cover vector algebra, analytic geometry, linear spaces, determinants, linear differential equations and more.

Learn Python in 7 Days Nov 10 2020 Learn efficient Python coding within 7 days About This Book Make the best of Python features Learn the tinge of Python in 7 days Learn complex concepts using the most simple

examples Who This Book Is For The book is aimed at aspiring developers and absolute novice who want to get started with the world of programming. We assume no knowledge of Python for this book. What You Will Learn Use if else statement with loops and how to break, skip the loop Get acquainted with python types and its operators Create modules and packages Learn slicing, indexing and string methods Explore advanced concepts like collections, class and objects Learn dictionary operation and methods Discover the scope and function of variables with arguments and return value In Detail Python is a great language to get started in the world of programming and application development. This book will help you to take your skills to the next level having a good knowledge of the fundamentals of Python. We begin with the absolute foundation, covering the basic syntax, type variables and operators. We'll then move on to concepts like statements, arrays, operators, string processing and I/O handling. You'll be able to learn how to operate tuples and understand the functions and methods of lists. We'll help you develop a deep understanding of list and tuples and learn python dictionary. As you progress through the book, you'll learn about function parameters and how to use control statements with the loop. You'll further learn how to create modules and packages, storing of data as well as handling errors. We later dive into advanced level concepts such as Python collections and how to use class, methods, objects in python. By the end of this book, you will be able to take your skills to the next level having a good knowledge of the fundamentals of Python. Style and approach Fast paced guide to get you up-to-speed with the language. Every chapter is followed by an exercise that focuses on building something with the language. The codes of the exercises can be found on the Packt website

Calculus with Complex Numbers Feb 23 2022 This practical treatment explains the applications complex calculus without requiring the rigor of a real analysis background. The author explores algebraic and geometric aspects of complex numbers, differentiation, contour integration, finite and infinite real

integrals, summation of series, and the fundamental theorem of algebra. The Residue Theo

Complex Numbers Apr 27 2022 An informative and useful account of complex numbers that includes historical anecdotes, ideas for further research, outlines of theory and a detailed analysis of the ever-elusory Riemann hypothesis. Stephen Roy assumes no detailed mathematical knowledge on the part of the reader and provides a fascinating description of the use of this fundamental idea within the two subject areas of lattice simulation and number theory. Complex Numbers offers a fresh and critical approach to research-based implementation of the mathematical concept of imaginary numbers. Detailed coverage includes: Riemann's zeta function: an investigation of the non-trivial roots by Euler-Maclaurin summation. Basic theory: logarithms, indices, arithmetic and integration procedures are described. Lattice simulation: the role of complex numbers in Paul Ewald's important work of the I 920s is analysed. Mangoldt's study of the xi function: close attention is given to the derivation of N(T) formulae by contour integration. Analytical calculations: used extensively to illustrate important theoretical aspects. Glossary: over 80 terms included in the text are defined. Offers a fresh and critical approach to the research-based implication of complex numbers Includes historical anecdotes, ideas for further research, outlines of theory and a detailed analysis of the Riemann hypothesis Bridges any gaps that might exist between the two worlds of lattice sums and number theory

John and Betty's Journey Through Complex Numbers Dec 24 2021 Set in the genre of a children's book, John and Betty trace the evolution of complex numbers and explore their operations. From integers, to fractions, to surds, complex numbers are made to seem like an obvious extension. Incorporating graphing on the complex number plane and culminating in De Moivre's Theorem, the logic of complex numbers is made to seem intuitive and simple. John and Betty delight in their journey, as will senior mathematics students.