

Elements Of Discrete Mathematics 2nd Edition Tata Mcgraw Hill

Handbook of Discrete and Combinatorial Mathematics provides a comprehensive reference volume for mathematicians, computer scientists, engineers, as well as students and reference librarians. The material is presented so that key information can be located and used quickly and easily. Each chapter includes a glossary. Individual topics are covered in sections and subsections within chapters, each of which is organized into clearly identifiable parts: definitions, facts, and examples. Examples are provided to illustrate some of the key definitions, facts, and algorithms. Some curious and entertaining facts and puzzles are also included. Readers will also find an extensive collection of biographies. This second edition is a major revision. It includes extensive additions and updates. Since the first edition appeared in 1999, many new discoveries have been made and new areas have grown in importance, which are covered in this edition.

Written for the one-term course, the Third Edition of Essentials of Discrete Mathematics is designed to serve computer science majors as well as students from a wide range of disciplines. The material is organized around five types of thinking: logical, relational, recursive, quantitative, and analytical. This presentation results in a coherent outline that steadily builds upon mathematical sophistication. Graphs are introduced early and referred to throughout the text, providing a richer context for examples and applications. tudents will encounter algorithms near the end of the text, after they have acquired the skills and experience needed to analyze them. The final chapter contains in-depth case studies from a variety of fields, including biology, sociology, linguistics, economics, and music.

In the last 60 years, the use of the notion of category has led to a remarkable unification and simplification of mathematics. Conceptual Mathematics introduces this tool for the learning, development, and use of mathematics, to beginning students and also to practising mathematical scientists. This book provides a skeleton key that makes explicit some concepts and procedures that are common to all branches of pure and applied mathematics. The treatment does not presuppose knowledge of specific fields, but rather develops, from basic definitions, such elementary categories as discrete dynamical systems and directed graphs; the fundamental ideas are then illuminated by examples in these categories. This second edition provides links with more advanced topics of possible study. In the new appendices and annotated bibliography the reader will find concise introductions to adjoint functors and geometrical structures, as well as sketches of relevant historical developments.

Some of the hardest computational problems have been successfully attacked through the use of probabilistic algorithms, which have an element of randomness to them. Concepts from the field of probability are also increasingly useful in analyzing the performance of algorithms, broadening our understanding beyond that provided by the worst-case or average-case analyses. This book surveys both of these emerging areas on the interface of the mathematical sciences and computer science. It is designed to attract new researchers to this area and provide them with enough background to begin explorations of their own.

Discover math principles that fuel algorithms for computer science and machine learning with Python

An Open Introduction

Concrete Mathematics: A Foundation for Computer Science

Proofs from THE BOOK

Discrete Mathematics and Its Applications

Note: This is the 3rd edition. If you need the 2nd edition for a course you are taking, it can be found as a "other format" on amazon, or by searching its isbn: 1534970746 This gentle introduction to discrete mathematics is written for first and second year who intend to teach. The text began as a set of lecture notes for the discrete mathematics course at the University of Northern Colorado. This course serves both as an introduction to topics in discrete math and as the "introduction to proof" course for n taught with a large amount of student inquiry, and this text is written to help facilitate this. Four main topics are covered: counting, sequences, logic, and graph theory. Along the way proofs are introduced, including proofs by contradiction, proofs by induction, and proofs by contradiction. The book contains over 470 exercises, including 275 with solutions and over 100 with hints. There are also investigate! activities throughout the text to support active, inquiry based learning. While there are many fine discrete math textbooks available, this book has several advantages: It is written to be used in an inquiry rich course. It is written to be used in a course for future math teachers. It is open source, with low cost print editions and free electronic editions. This third edition brings improved exposition, a new section on induction, and improved exercises. For a complete list of changes, and to view the free electronic version of the text, visit the book's website at discrete.openmathbooks.org

This introduction to discrete mathematics is aimed at freshmen and sophomores in mathematics and computer science. It begins with a survey of number systems and elementary set theory before moving on to treat data structures, counting, probability, n theory, matrices, number theory and cryptography. The end of each section contains problem sets with selected solutions, and good examples occur throughout the text.

Winner at the 46th Annual New England Book Show (2003) in the "College Covers & Jackets" category This introduction to discrete mathematics prepares future computer scientists, engineers, and mathematicians for success by providing extensive and co functions, algorithmic analysis, and algebraic structures. Discrete Mathematics, Second Edition illustrates the relationships between key concepts through its thematic organization and provides a seamless transition between subjects. Distinct for the depth of text emphasizes problem solving and the application of theory as it carefully guides the reader from basic to more complex topics. Discrete Mathematics is an ideal resource for discovering the fundamentals of discrete math. Discrete Mathematics, Second Edition is an introductory course in discrete mathematics for the prospective computer scientist, applied mathematician, or engineer who wants to learn how the ideas apply to computer sciences.The choice of topics-and the breadth of coverage-reflects the desire to provide the foundations needed to successfully complete courses at the upper division level in undergraduate computer science courses. This book differs in several ways from current books about discrete mathematics.It presents an elementary and unified introduction to discrete mathematics that has not been available in a single source.A major feature of the book is the unification of the material so that it does not fragment into a collection of seemingly unrelated ideas.

This stimulating textbook presents a broad and accessible guide to the fundamentals of discrete mathematics, highlighting how the techniques may be applied to various exciting areas in computing. The text is designed to motivate and inspire the reader, emphasizing the important skill. Features: provides an introduction to the building blocks of discrete mathematics, including sets, relations and functions; describes the basics of number theory, the techniques of induction and recursion, and the applications of mathematical induction to counting, permutations, and combinations; presents the essentials of algebra; explains the fundamentals of automata theory, matrices, graph theory, cryptography, coding theory, language theory, and the concepts of computability and decidability; reviews the history of discrete mathematics; discusses propositional and predicate logic, as well as advanced topics; examines the field of software engineering, describing formal methods; investigates probability and statistics.

Applied Discrete Structures

Discrete Mathematics with Applications

Applied Discrete Structures - Part 2- Algebraic Structures

A Computer Oriented Approach

Introduction to Graph Theory

Tough Test Questions? Missed Lectures? Not Enough Time? Fortunately for you, there's Schaum's Outlines. More than 40 million students have trusted Schaum's to help them succeed in the classroom and on exams. Schaum's is the key to faster learning and higher grades in every subject. Each Outline presents all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills. This Schaum's Outline gives you: Practice problems with full explanations that reinforce knowledge Coverage of the most up-to-date developments in your course field In-depth review of practices and applications Fully compatible with your classroom text, Schaum's highlights all the important facts you need to know. Use Schaum's to shorten your study time-and get your best test scores! Schaum's Outlines-Problem Solved.

This practically-focused study guide introduces the fundamentals of discrete mathematics through an extensive set of classroom-tested problems. Each chapter presents a concise introduction to the relevant theory, followed by a detailed account of common challenges and methods for overcoming these. The reader is then encouraged to practice solving such problems for themselves, by tackling a varied selection of questions and assignments of different levels of complexity. This updated second edition now covers the design and analysis of algorithms using Python, and features more than 50 new problems, complete with solutions. Topics and features: provides a substantial collection of problems and examples of varying levels of difficulty, suitable for both laboratory practical training and self-study; offers detailed solutions to each problem, applying commonly-used methods and computational schemes; introduces the fundamentals of mathematical logic, the theory of algorithms, Boolean algebra, graph theory, sets, relations, functions, and combinatorics; presents more advanced material on the design and analysis of algorithms, including Turing machines, asymptotic analysis, and parallel algorithms; includes reference lists of trigonometric and finite summation formulae in an appendix, together with basic rules for differential and integral calculus. This hands-on workbook is an invaluable resource for undergraduate students of computer science, informatics, and electronic engineering.

Suitable for use in a one- or two-semester course on discrete mathematics, the text emphasizes the skills required to develop and implement an algorithm in a specific programming language.

Discrete Mathematics and its Applications is a focused introduction to the primary themes in a discrete mathematics course, as introduced through extensive applications, expansive discussion, and detailed exercise sets. These themes include mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, and enhanced problem-solving skills through modeling. Its intent is to demonstrate the relevance and practicality of discrete mathematics to all students. The Fifth Edition includes a more thorough and linear presentation of logic, proof types and proof writing, and mathematical reasoning. This enhanced coverage will provide students with a solid understanding of the material as it relates to their immediate field of study and other relevant subjects. The inclusion of applications and examples to key topics has been significantly addressed to add clarity to every subject. True to the Fourth Edition, the text-specific web site supplements the subject matter in meaningful ways, offering additional material for students and instructors. Discrete math is an active subject with new discoveries made every year. The continual growth and updates to the web site reflect the active nature of the topics being discussed. The book is appropriate for a one- or two-term introductory discrete mathematics course to be taken by students in a wide variety of majors, including computer science, mathematics, and engineering. College Algebra is the only explicit prerequisite.

Discrete mathematics is a compulsory subject for undergraduate computer scientists. This new edition includes new chapters on statements and proof, logical framework, natural numbers and the integers and updated exercises from the previous edition. Discrete Mathematical Structures with Applications to Computer Science Discrete Mathematics for Computer Science Discrete Mathematical Structures, 1/e A Beginner's Guide to Discrete Mathematics Discrete Mathematics Using a Computer This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Stein/Drysdale/Bogart's Discrete Mathematics for Computer Scientists is ideal for computer science students taking the discrete math course. Written specifically for computer science students, this unique textbook directly addresses their needs by providing a foundation in discrete math while using motivating, relevant CS applications. This text takes an active-learning approach where activities are presented as exercises and the material is then fleshed out through explanations and extensions of the exercises.

Essentials of Discrete Mathematics, Second Edition is the ideal text for a one-term discrete mathematics course to serve computer science majors as well as students from a wide range of other disciplines. It introduces students to the mathematical way of thinking, and also to many important modern applications. The material is organized around five types of thinking: logical, relational, recursive, quantitative, and analytical. This presentation results in a coherent outline that steadily builds upon mathematical sophistication. Graphs are introduced early and referred to throughout the text, providing a richer context for examples and applications. Students will encounter algorithms near the end of the text, after they have acquired the skills and experience needed to analyze them. The final chapter contains in-depth case studies from a variety of fields, including biology, sociology, linguistics, economics, and music. Clear and concise, Essentials of Discrete Mathematics presents a unified and complete picture of discrete mathematics that instructors can cover in a single semester.

This textbook provides an engaging and motivational introduction to traditional topics in discrete mathematics, in a manner specifically designed to appeal to computer science students. The text empowers students to think critically, to be effective problem solvers, to integrate theory and practice, and to recognize the importance of abstraction. Clearly structured and interactive in nature, the book presents detailed walkthroughs of several algorithms, stimulating a conversation with the reader through informal commentary and provocative questions. Features: no university-level background in mathematics required; ideally structured for classroom-use and self-study, with modular chapters following ACM curriculum recommendations; describes mathematical processes in an algorithmic manner; contains examples and exercises throughout the text, and highlights the most important concepts in each section; selects examples that demonstrate a practical use for the concept in question. Discrete Mathematical Structures provides comprehensive, reasonably rigorous and simple explanation of the concepts with the help of numerous applications from computer science and engineering. Every chapter is equipped with a good number of solved examples that elucidate the definitions and theorems discussed. Chapter-end exercises are graded, with the easier ones in the beginning and then the complex ones, to help students for easy solving.

Handbook of Discrete and Combinatorial Mathematics

Elements of Discrete Mathematics

Solutions Manual to Accompany Elements of Discrete Mathematics, 2nd Ed

Probability and Algorithms

Discrete Mathematical Structures

A Trusted Guide to Discrete Mathematics with Proof?Now in a Newly Revised Edition Discrete mathematics has become increasingly popular in recent years due to its growing applications in the field of computer science. Discrete Mathematics with Proof, Second Edition continues to facilitate an up-to-date understanding of this important topic, exposing readers to a wide range of modern and technological applications. The book begins with an introductory chapter that provides an accessible explanation of discrete mathematics. Subsequent chapters explore additional related topics including counting, finite probability theory, recursion, formal models in computer science, graph theory, trees, the concepts of functions, and relations. Additional features of the Second Edition include: An intense focus on the formal settings of proofs and their techniques, such as constructive proofs, proof by contradiction, and combinatorial proofs New sections on applications of elementary number theory, multidimensional induction, counting tulips, and the binomial distribution Important examples from the field of computer science presented as applications including the Halting problem, Shannon's mathematical model of information, regular expressions, XML, and Normal Forms in relational databases Numerous examples that are not often found in books on discrete mathematics including the deferred acceptance algorithm, the Boyer-Moore algorithm for pattern matching, Sierpinski curves, adaptive quadrature, the Josephus problem, and the five-color theorem Extensive appendices that outline supplemental material on analyzing claims and writing mathematics, along with solutions to selected chapter exercises Combinatorics receives a full chapter treatment that extends beyond the combinations and permutations material by delving into non-standard topics such as Latin squares, finite projective planes, balanced incomplete block designs, coding theory, partitions, occupancy problems, Stirling numbers, Ramsey numbers, and systems of distinct representatives. A related Web site features animations and visualizations of combinatorial proofs that assist readers with comprehension. In addition, approximately 500 examples and over 2,800 exercises are presented throughout the book to motivate ideas and illustrate the proofs and conclusions of theorems. Assuming only a basic background in calculus, Discrete Mathematics with Proof, Second Edition is an excellent book for mathematics and computer science courses at the undergraduate level. It is also a valuable resource for professionals in various technical fields who would like an introduction to discrete mathematics.

In a comprehensive yet easy-to-follow manner, Discrete Mathematics for New Technology follows the progression from the basic mathematical concepts covered by the GCSE in the UK and by high-school algebra in the USA to the more sophisticated mathematical concepts examined in the latter stages of the book. The book punctuates the rigorous treatment of theory with frequent uses of pertinent examples and exercises, enabling readers to achieve a feel for the subject at hand. The exercise hints and solutions are provided at the end of the book. Topics covered include logic and the nature of mathematical proof, set theory, relations and functions, matrices and systems of linear equations, algebraic structures, Boolean algebras, and a thorough treatise on graph theory. Although aimed primarily at computer science students, the structured development of the mathematics enables this text to be used by undergraduate mathematicians, scientists, and others who require an understanding of discrete mathematics.

Aimed at undergraduate mathematics and computer science students, this book is an excellent introduction to a lot of problems of discrete mathematics. It discusses a number of selected results and methods, mostly from areas of combinatorics and graph theory, and it uses proofs and problem solving to help students understand the solutions to problems. Numerous examples, figures, and exercises are spread throughout the book. Master the fundamentals of discrete mathematics with DISCRETE MATHEMATICS FOR COMPUTER SCIENCE with Student Solutions Manual CD-ROM! An increasing number of computer scientists from diverse areas are using discrete mathematical structures to explain concepts and problems and this mathematics text shows you how to express precise ideas in clear mathematical language. Through a wealth of exercises and examples, you will learn how mastering discrete mathematics will help you develop important reasoning skills that will continue to be useful throughout your career.

Discrete Mathematics

Guide to Discrete Mathematics

Discrete Mathematics for Computer Scientists

for New Technology

The Discrete Math Workbook

Aimed at "the mathematically traumatized," this text offers nontechnical coverage of graph theory, with exercises. Discusses planar graphs, Euler's formula, Platonic graphs, coloring, the genus of a graph, Euler walks, Hamilton walks, more. 1976 edition.

Known for its accessible, precise approach, Epp's DISCRETE MATHEMATICS WITH APPLICATIONS, 5th Edition, introduces discrete mathematics with clarity and precision. Coverage emphasizes the major themes of discrete mathematics as well as the reasoning underlies mathematical thought. Students learn to think abstractly as they study the ideas of logic and proof. While learning about logic circuits and computer addition, algorithm analysis, recursive thinking, computability, automata, cryptography and combinatorics, students discover that ideas of discrete mathematics underlie and are essential to today's science and technology. The author's emphasis on reasoning provides a foundation for computer science and upper-level mathematics courses. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Applied Discrete Structures, Part II - Algebraic Structures, is an introduction to groups, monoids, vector spaces, lattices, boolean algebras, rings and fields. It corresponds with the content of Discrete Structures II at UMass Lowell, which is a required course for Computer Science. It presumes background contained in Part I - Fundamentals. Applied Discrete Structures has been approved by the American Institute of Mathematics as part of their Open Textbook Initiative. For more information on open textbooks, visit <http://www.aimath.org/textbooks/>. This version was created using Mathbook XML (<https://mathbook.pugetsound.edu/>) Al Doerr is Emeritus Professor of Mathematical Sciences at UMass Lowell. His interests include abstract algebra and discrete mathematics.

Professor of Mathematical Sciences at UMass Lowell. His interests include discrete mathematics and abstract algebra, and their implementation using computer algebra systems. Several areas of mathematics find application throughout computer science, and all students of computer science need a practical working understanding of them. These core subjects are centred on logic, sets, recursion, induction, relations and functions. This book is called discrete mathematics, to distinguish it from the traditional topics of continuous mathematics such as integration and differential equations. The central theme of this book is the connection between computing and discrete mathematics. This connection is explored in three directions: • Mathematics is used in many branches of computer science, in applications including program specification, datastructures,design and analysis of algorithms, database systems, hardware design, reasoning about the correctness of implementations, and more. • Computers can help to make the mathematics easier to learn and use, by making mathematical terms executable, making abstract concepts more concrete, and through the use of software tools such as proof checkers. These connections are explored in the book. Software tools (see Appendix A) enable the computer to serve as a calculator, but instead of just doing arithmetic and trigonometric functions, it will be used to calculate with sets, relations, functions, predicates and inferences. There are also some examples, for example a proof checker for logical proofs using natural deduction.

A Problem-Solving Primer

A Companion Manual Using Python

Invitation to Discrete Mathematics

Discrete Mathematical Structures for Computer Science

Essentials of Discrete Mathematics

This text provides a balanced survey of major sub-fields within discrete mathematics. It demonstrates the utility of discrete mathematics in the solutions of real-world problems in diverse areas such as zoology, linguistics and business. Over 200 new problems have been added to this third edition.

A precise, relevant, comprehensive approach to mathematical concepts...

This Text Can Be Used By The Students Of Mathematics Or Computer Science As An Introduction To The Fundamentals Of Discrete Mathematics. The Book Is Designed In Accordance With The Syllabi Of Be, B. Tech, Bca, Mca, And M.Sc. (Computer Science) Prescribed In Most Of The Universities. This Book Offers The Following Topics: Mathematical Logic, Sets, Relations, Recurrence Relations, Functions, Combinations, Boolean Algebra, Logic Gates, Graph Theory, Algebraic Structures, And Finite State Machines. Each Chapter Is Supplemented With A Number Of Worked Examples As Well As A Number Of Problems To Be Solved By The Students. This Would Help In A Better Understanding Of The Subject.

According to the great mathematician Paul Erdős, 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.

Practical Discrete Mathematics

Elementary and Beyond

Schaum's Outline of Discrete Mathematics, Revised Third Edition

Mathematics for Machine Learning

A First Introduction to Categories

Discrete Mathematics will be of use to any undergraduate as well as post graduate courses in Computer Science and Mathematics. The syllabi of all these courses have been studied in depth and utmost care has been taken to ensure that all the essential topics in discrete structures are adequately emphasized. The book will enable the students to develop the requisite computational skills needed in software engineering.

The fundamental mathematical tools needed to understand machine learning include linear algebra, analytic geometry, matrix decompositions, vector calculus, optimization, probability and statistics. These topics are traditionally taught in disparate courses, making it hard for data science or computer science students, or professionals, to efficiently learn the mathematics. This self-contained textbook bridges the gap between mathematical and machine learning texts, introducing the mathematical concepts with a minimum of prerequisites. It uses these concepts to derive four central machine learning methods: linear regression, principal component analysis, Gaussian mixture models and support vector machines. For students and others with a mathematical background, these derivations provide a starting point to machine learning texts. For those learning the mathematics for the first time, the methods help build intuition and practical experience with applying mathematical concepts. Every chapter includes worked examples and exercises to test understanding. Programming tutorials are offered on the book's web site.

Elements of Discrete Mathematics A Computer Oriented Approach Elements of Discrete Mathematics Discrete Mathematics An Open Introduction

This text has been designed as a complete introduction to discrete mathematics, primarily for computer science majors in either a one or two semester course. The topics addressed are of genuine use in computer science, and are presented in a logically coherent fashion. The material has been organized and interrelated to minimize the mass of definitions and the abstraction of some of the theory. For example, relations and directed graphs are treated as two aspects of the same mathematical idea. Whenever possible each new idea uses previously encountered material, and then developed in such a way that it simplifies the more complex ideas that follow.

Discrete Mathematics with Proof

Fundamentals of Discrete Math for Computer Science

Student Solutions Guide for Discrete Mathematics and Its Applications

Conceptual Mathematics

This Book Is Meant To Be More Than Just A Text In Discrete Mathematics. It Is A Forerunner Of Another Book Applied Discrete Structures By The Same Author. The Ultimate Goal Of The Two Books Are To Make A Strong Case For The Inclusion Of Discrete Mathematics In The Undergraduate Curricula Of Mathematics By Creating A Sequence Of Courses In Discrete Mathematics Parallel To The Traditional Sequence Of Calculus-Based Courses. The Present Book Covers The Foundations Of Discrete Mathematics In Seven Chapters. It Lays A Heavy Emphasis On Motivation And Attempts Clarity Without Sacrificing Rigour. A List Of Typical Problems Is Given In The First Chapter. These Problems Are Used Throughout The Book To Motivate Various Concepts. A Review Of Logic Is Included To Gear The Reader Into A Proper Frame Of Mind. The Basic Counting Techniques Are Covered In Chapters 2 And 7. Those In Chapter 2 Are Elementary. But They Are Intentionally Covered In A Formal Manner So As To Acquaint The Reader With The Traditional Definition-Theorem-Proof Pattern Of Mathematics. Chapters 3 Introduces Abstraction And Shows How The Focal Point Of Today's Mathematics Is Not Numbers But Sets Carrying Suitable Structures. Chapter 4 Deals With Boolean Algebras And Their Applications. Chapters 5 And 6 Deal With More Traditional Topics In Algebra, Viz., Groups, Rings, Fields, Vector Spaces And Matrices. The Presentation Is Elementary And Presupposes No Mathematical Maturity On The Part Of The Reader. Instead, Comments Are Inserted Liberally To Increase His Maturity. Each Chapter Has Four Sections. Each Section Is Followed By Exercises (Of Various Degrees Of Difficulty) And By Notes And Guide To Literature. Answers To The Exercises Are Provided At The End Of The Book.

Invitation to Discrete Mathematics is an introduction and a thoroughly comprehensive text at the same time. A lively and entertaining style with mathematical precision and maturity uniquely combine into an intellectual happening and should delight the interested reader. A master example of teaching contemporary discrete mathematics, and of teaching science in general.

A practical guide simplifying discrete math for curious minds and demonstrating its application in solving problems related to software development, computer algorithms, and data science
Key Features
Apply the math of countable objects to practical problems in computer science
Explore modern Python libraries such as scikit-learn, NumPy, and SciPy for performing mathematics
Learn complex statistical and mathematical concepts with the help of hands-on examples and expert guidance
Book Description
Discrete mathematics deals with studying countable, distinct elements, and its principles are widely used in building algorithms for computer science and data science. The knowledge of discrete math concepts will help you understand the algorithms, binary, and general mathematics that sit at the core of data-driven tasks. Practical Discrete Mathematics is a comprehensive introduction for those who are new to the mathematics of countable objects. This book will help you get up to speed with using discrete math principles to take your computer science skills to a more advanced level. As you learn the language of discrete mathematics, you'll also cover methods crucial to studying and describing computer science and machine learning objects and algorithms. The chapters that follow will guide you through how memory and CPUs work. In addition to this, you'll understand how to analyze data for useful patterns, before finally exploring how to apply math concepts in network routing, web searching, and data science. By the end of this book, you'll have a deeper understanding of discrete math and its applications in computer science, and be ready to work on real-world algorithm development and machine learning. What you will learn
Understand the terminology and methods in discrete math and their usage in algorithms and data problems
Use Boolean algebra in formal logic and elementary control structures
Implement combinatorics to measure computational complexity and manage memory allocation
Use random variables, calculate descriptive statistics, and find average-case computational complexity
Solve graph problems involved in routing, pathfinding, and graph searches, such as depth-first search
Perform ML tasks such as data visualization, regression, and dimensionality reduction
Who this book is for
This book is for computer scientists looking to expand their knowledge of discrete math, the core topic of their field. University students looking to get hands-on with computer science, mathematics, statistics, engineering, or related disciplines will also find this book useful. Basic Python programming skills and knowledge of elementary real-number algebra are required to get started with this book.

Foundations of Discrete Mathematics

An Accessible Introduction to the History, Theory, Logic and Applications