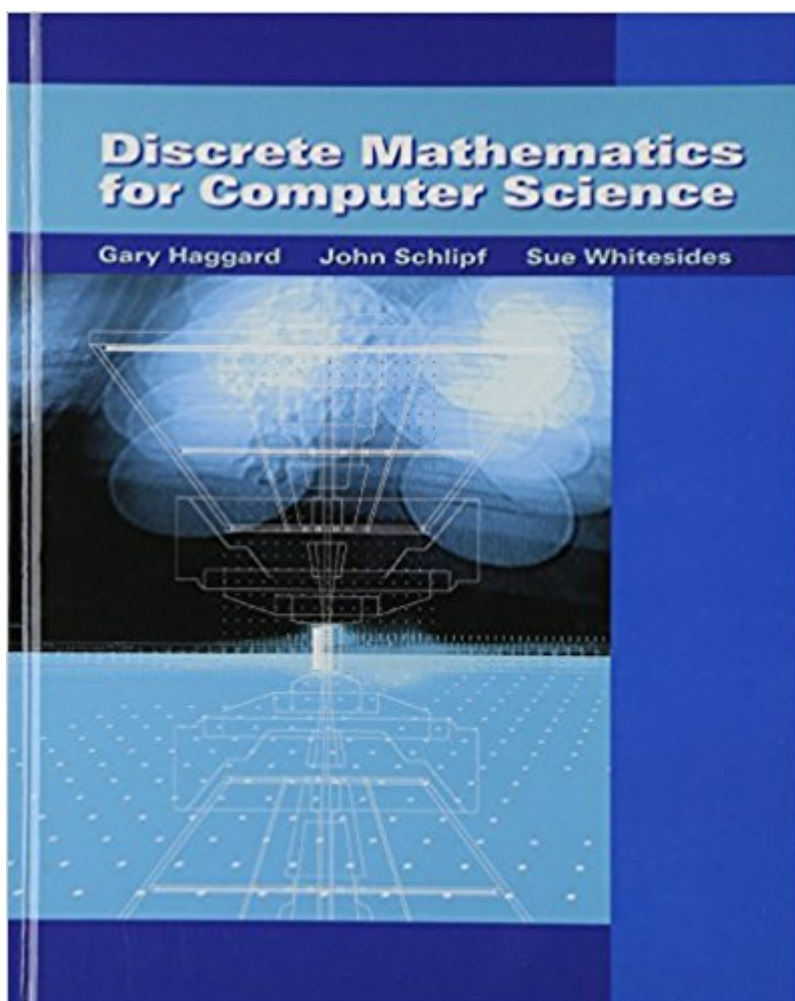


The book was found

Discrete Mathematics For Computer Science (with Student Solutions Manual CD-ROM)



Synopsis

An increasing number of computer scientists from diverse areas are using discrete mathematical structures to explain concepts and problems. Based on their teaching experiences, the authors offer an accessible text that emphasizes the fundamentals of discrete mathematics and its advanced topics. This text shows how to express precise ideas in clear mathematical language. Students discover the importance of discrete mathematics in describing computer science structures and problem solving. They also learn how mastering discrete mathematics will help them develop important reasoning skills that will continue to be useful throughout their careers.

Book Information

Hardcover: 624 pages

Publisher: Cengage Learning; 1 edition (February 1, 2005)

Language: English

ISBN-10: 053449501X

ISBN-13: 978-0534495015

Product Dimensions: 7.6 x 1.2 x 9.6 inches

Shipping Weight: 2.6 pounds

Average Customer Review: 2.6 out of 5 stars 3 customer reviews

Best Sellers Rank: #704,471 in Books (See Top 100 in Books) #87 in Books > Science & Math > Mathematics > Pure Mathematics > Fractals #266 in Books > Science & Math > Mathematics > Pure Mathematics > Discrete Mathematics #1053 in Books > Textbooks > Science & Mathematics > Mathematics > Calculus

Customer Reviews

1. SETS, PROOF TEMPLATES, AND INDUCTION. Basic Definitions. Exercises. Operations on Sets. Exercises. The Principle of Inclusion-Exclusion. Exercises. Mathematical Induction. Program Correctness. Exercises. Strong Form of Mathematical Induction. Exercises. Chapter Review. 2. FORMAL LOGIC. Introduction to Propositional Logic. Exercises. Truth and Logical Truth. Exercises. Normal Forms. Exercises. Predicates and Quantification. Exercises. Chapter Review. 3. RELATIONS. Binary Relations. Operations on Binary Relations. Exercises. Special Types of Relations. Exercises. Equivalence Relations. Exercises. Ordering Relations. Exercises. Relational Databases: An Introduction. Exercises. Chapter Review. 4. FUNCTIONS. Basic Definitions. Exercises. Operations on Functions. Sequences and Subsequences. Exercises. The Pigeon-Hole Principle. Exercises. Countable and Uncountable Sets. Exercises. Chapter Review. 5. ANALYSIS

OF ALGORITHMS. Comparing Growth Rates of Functions. Exercises. Complexity of Programs. Exercises. Uncomputability. Chapter Review. 6. GRAPH THEORY. Introduction to Graph Theory. The Handshaking Problem. Paths and Cycles. Graph Isomorphism. Representation of Graphs. Exercises. Connected Graphs. The Königsberg Bridge Problem. Exercises. Trees. Spanning Trees. Rooted Trees. Exercises. Directed Graphs. Applications: Scheduling a Meeting Facility. Finding a Cycle in a Directed Graph. Priority in Scheduling. Connectivity in Directed Graphs. Eulerian Circuits in Directed Graphs. Exercises. Chapter Review. 7. COUNTING AND COMBINATORICS. Traveling Salesperson. Counting Principles. Set Decomposition Principle. Exercises. Permutations and Combinations. Constructing the k th Permutation. Exercises. Counting with Repeated Objects. Combinatorial Identities. Pascal's Triangle. Exercises. Chapter Review. 8. DISCRETE PROBABILITY. Ideas of Chance in Computer Science. Exercises. Cross Product Sample Spaces. Exercises. Independent Events and Conditional Probability. Exercises. Discrete Random Variables. Exercises. Variance, Standard Deviation, and the Law of Averages. Exercises. Chapter Review. 9. RECURRENCE RELATIONS. The Tower of Hanoi Problem. Solving First-Order Recurrence Relations. Exercises. Second-Order Recurrence Relations. Exercises. Divide-and-Conquer Paradigm. Binary Search. Merge Sort. Multiplication of n -Bit Numbers. Divide-and-Conquer Recurrence Relations. Exercises. Chapter Review.

Gary Haggard is Professor of Computer Science at Bucknell University. His research in data structures focuses on the implementation of effective algorithms for computing invariants for large combinatorial structures such as graphs. Dr. Haggard's current work is directed towards finding chromatic polynomials of large graphs. John Schlipf is a Professor of Computer Science in the Department of Electrical and Computer Engineering and Computer Science at the University of Cincinnati. His research interests include logic programming and deductive databases, algorithms for satisfiability, computability and complexity, formal verification, and model theory. Sue Whitesides is Professor of Computer Science at McGill University. She holds a Ph.D. from University of Wisconsin and a Masters from Stanford University. Her research interests lie within combinatorial mathematics and theoretical computer science.

This book has an extremely poor organization of information. It's like the authors just threw a bunch of information at the book without thinking about how a student has to go through learning the mathematical concepts. The only reason I have to use this book is because a professor from my university was one of the authors. Get another book on discrete mathematics if you want to really

learn the material.

This textbook was the exact same one I needed for class and was MUCH cheaper than buying from the school store. It was even in better condition than what was advertised! I would definitely recommend this book.

This was a required textbook for a course at my university. My professor pulled all the homework from the ends of each chapter. This part of the book is one of my biggest gripes. The reading sections of this book pack a large amount of material in a brief page or two for each section followed by homework exercises. The exercise sections have are about as long as the actual information sections, meaning they are packed with questions. This would be a positive for this book except the questions aren't similar, so the included CD with the odd problems solved will often be of little help because question 3 will be a completely different sort of problem than question 4. Since each problem is so unique, you'll often be left dealing with problems that are considerably more complex than anything found in the reading sections of the text. If you are using the questions of this book for homework, be prepared to use google extensively. As an example, the book may explain how to perform an operation on 2 sets of numbers. Then in the homework, it will ask you to perform the same operation on 5 sets abstract sets without ever explaining how to go about doing that. I ended up receiving an A in the course, but that was after spending ~8 hours for each 10-14 question homework. Most of that time was spent on the internet trying to learn the material from whatever sites I could find. The reading sections of this text are an excersize in frustration. In one of the explanations for a concept in the book, the author literally uses the phrase "from [problem], it is obvious that the answer is [answer]." That was the entire explanation on the topic. A textbook should never say the phrase "from X, it is obvious that Y" if the whole section is supposed to be telling you how to find Y from X in the first place. This is an introductory text into formal logic, proofs, and set mathematics. Yet, you'll often find that the author skips steps in his solutions which may be obvious to someone familiar with the material but that is obviously not the target of this text. There is an occasional table for reference which doesn't explain what the relationship between anything on the table is (I'm looking at you, Table of Commonly Used Tautologies....). This book covers a great number of topics in a fairly small book, for a textbook that is. However, this book suffers from a lack of depth necessary to reach its potential. If you have a choice, skip this text. If, like me, you are required to use this text.... Google everything and god help you.

[Download to continue reading...](#)

Discrete Mathematics for Computer Science (with Student Solutions Manual CD-ROM)
Fundamentals of Discrete Math for Computer Science: A Problem-Solving Primer (Undergraduate Topics in Computer Science) Discrete Mathematics, Student Solutions Manual: Mathematical Reasoning and Proof with Puzzles, Patterns, and Games Student's Solutions Guide to Accompany Discrete Mathematics and Its Applications, 7th Edition Introductory Discrete Mathematics (Dover Books on Computer Science) Computer Science for the Curious: Why Study Computer Science? (The Stuck Student's Guide to Picking the Best College Major and Career) Mathematics and Computer Science in Medical Imaging (Nato ASI Series Series III, Computer and Systems Sciences) Earth System History & Student CD-Rom: with Student CD-ROM Advanced Mathematics: Precalculus With Discrete Mathematics and Data Analysis Discrete Mathematics with Graph Theory (Classic Version) (3rd Edition) (Pearson Modern Classics for Advanced Mathematics Series) Discrete Mathematics: Elementary and Beyond (Undergraduate Texts in Mathematics) A First Course in Discrete Mathematics (Springer Undergraduate Mathematics Series) Discrete Mathematics and Applications, Second Edition (Textbooks in Mathematics) Discrete and Combinatorial Mathematics (Classic Version) (5th Edition) (Pearson Modern Classics for Advanced Mathematics Series) Essentials Of Discrete Mathematics (The Jones & Bartlett Learning International Series in Mathematics) 1st Grade Computer Basics : The Computer and Its Parts: Computers for Kids First Grade (Children's Computer Hardware Books) Extremal Combinatorics: With Applications in Computer Science (Texts in Theoretical Computer Science. An EATCS Series) Finite Mathematics, Student Solutions Manual: An Applied Approach Student Solutions Manual for Tan's Finite Mathematics for the Managerial, Life, and Social Sciences, 11th Student's Solutions Manual for Mathematics with Applications In the Management, Natural and Social Sciences

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)