

<<离散数学及其应用--第4版--英文>>

图书基本信息

书名：<<离散数学及其应用--第4版--英文>>

13位ISBN编号：9787111072546

10位ISBN编号：7111072545

出版时间：1999-06

出版时间：机械工业出版社

作者：罗森(美)

页数：678

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

作者简介

ABOUT THE AUTHOR

Kenneth H. Rosen is a Distinguished Member of the Technical Staff in the New Concepts Area of AT&T Laboratories in Holmdel, New Jersey.

Dr. Rosen received his B.S. in Mathematics from the University of Michigan, Ann Arbor (1972), and his Ph.D. in Mathematics from M.I.T. (1976), where he wrote his thesis in the area of number theory under the direction of Harold Stark. Before joining Bell Laboratories in 1982, he held positions at the University of Colorado, Boulder; the Ohio State University, Columbus; and the University of Maine, Orono, where he was an associate professor of mathematics. While working at AT&T Labs, Ken has taught in the evening program in computer science at Monmouth University, teaching courses in discrete mathematics, coding theory, and data security.

Dr. Rosen has published numerous articles in professional journals in the areas of number theory and mathematical modeling. He is the author of the textbooks *Elementary Number Theory and Its Applications*, currently in its third edition, published by Addison-Wesley, and *Discrete Mathematics and Its Applications*, in its fourth edition, published by McGraw-Hill. Both books have been used extensively at hundreds of universities. He is coauthor of *UNIX System V Release 4: An Introduction*, which has sold more than 100,000 copies and has been translated into Spanish and German, and *Best UNIX Tips Ever*, translated into Chinese, both published by Osborne McGraw-Hill. Ken is also the editor of the *Handbook of Discrete Mathematics*, a new publication to be published in 1999 by CRC Press, and he is the editor of the CRC series of books in discrete mathematics. Ken is also interested in integrating mathematical software into the educational and professional environments and is working on projects with Waterloo MAPLE software in both these areas.

At Bell Laboratories and now AT&T Laboratories, Dr. Rosen has worked on a wide range of projects, including operations research studies and product line planning for computers and data communications equipment. He has helped plan AT&T's future products and services in the area of multimedia, including video communications, speech recognition, and image networking. He has evaluated new technology for use by AT&T. He has also invented many new services and holds or has submitted many patents. One of his more interesting projects involved helping evaluate technology for the AT&T attraction at EPCOT Center.

书籍目录

Preface ix

The companion web site xix

To the student xxi

PRAT 1 The foundations : logic , sets , and function

1. Logic
2. Propositional equivalences
3. Predicates and quantifiers
4. Sets
5. Set operations
6. Functions
7. Sequences and summations
8. The growth of functions

PART 2 The fundamentals : algorithms , the integers , and matrices

1. Algorithms
2. Complexity of algorithms
3. The integers and division
4. Integers and algorithms
5. Applications of number theory
6. Matrices

PART 3 Mathematical reasoning

1. Methods of proof
2. Mathematical induction
3. Recursive definitions
4. Recursive algorithms
5. Program correctness

PART 4 Counting

1. The basics of counting
2. The pigeonhole principle
3. Permutations and combinations
4. Discrete probability
5. Probability theory
6. Generalized permutations and combinations
7. Generating permutations and combinations

PART 5 Advanced counting techniques

1. Recurrence relations
2. Solving recurrence relations
3. Divide-and-conquer relations
4. Generating functions
5. Inclusion-Exclusion
6. Applications of inclusion-exclusion

PART 6 Relations

1. Relations and their properties
2. n-ary relations and their applications
3. Representing relations
4. Closures of relations

<<离散数学及其应用--第4版--英文>>

5. Equivalence relations

6. Partial orderings

PART 7 Graphs

1. Introduction to graphs

2. Graph terminology

3. Representing graphs and graph isomorphism

4. Connectivity

5. Euler and Hamilton paths

6. Shortest path problems

7. Planar graphs

8. Graph coloring

PART 8 Trees

1. Introduction to trees

2. Applications of trees

3. Tree traversal

4. Trees and sorting

5. Spanning trees

6. Minimum spanning trees

PART 9 Boolean algebra

1. Boolean functions

2. Representing Boolean functions

3. Logic gates

4. Minimization of circuits

PART 10 Modeling computation

1. Languages and grammars

2. Finite-state machines with output

3. Finite-state machines with no output

4. Language recognition

5. Turing machines

App

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>