

## <<离散数学暨组合数学>>

### 图书基本信息

书名 : <<离散数学暨组合数学>>

13位ISBN编号 : 9787302077893

10位ISBN编号 : 7302077894

出版时间 : 2004-1

出版时间 : 清华大学出版社

作者 : 安德森

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>

## <<离散数学暨组合数学>>

### 内容概要

本书结构严谨、简洁易懂、逻辑性强，其内容涵盖了离散数学各种基础主题，每个主题的概念都与计算机工程和数学的实际应用相结合。

本书不仅介绍了很多的基本概念，而且还讨论了一些扩展主题，如逻辑、集合、图、树、迭代、代数、计算理论和组合数学，并有大量实例，以帮助学生巩固所学知识。

全书讨论严谨，实例、习题多，是一本有关计算机基础数学理论的很好教材。

## <<离散数学暨组合数学>>

### 书籍目录

preface  
1 Truth Tables, Logic, and Proofs  
    1.1 Statements and Connectives  
    1.2 Conditional Statements  
    1.3 Equivalent Statements  
    1.4 Axiomatic Systems: Arguments and Proofs  
    1.5 Completeness in Propositional Logic  
    1.6 Karnaugh Maps  
    1.7 Circuit Diagrams  
2 Set Theory  
    2.1 Introduction to Sets  
    2.2 Set Operations  
    2.3 Venn Diagrams  
    2.4 Boolean Algebras  
    2.5 Relations  
    2.6 Partially Ordered Sets  
    2.7 Equivalence Relations  
3 Logic, Integers, and Proofs  
    3.1 Predicate Calculus  
    3.2 Basic Concepts of Proofs and the Structure of Integers  
    3.3 Mathematical Induction  
    3.4 Divisibility  
    3.5 Prime Integers  
    3.6 Congruence Relations  
4 Functions and Matrices  
    4.1 Functions  
    4.2 Special Functions  
    4.3 Matrices  
    4.4 Cardinality  
    4.5 Cardinals  
    4.6 Continued  
5 Algorithms and Recursion  
    5.1 The “for” Procedure and Algorithms for Matrices  
    5.2 Recursive Functions and Algorithms  
    5.3 Complexity of Algorithms  
    5.4 Sorting Algorithms  
    5.5 Prefix and Suffix Notation  
    5.6 Binary and Hexadecimal Numbers  
    5.7 Signed Numbers  
    5.8 Matrices  
    5.9 Continued  
6 Graphs, Directed Graphs, and Trees  
    6.1 Graphs  
    6.2 Directed Graphs  
    6.3 Trees  
    6.4 Instant Insanity  
    6.5 Euler Paths and Cycles  
    6.6 Incidence and Adjacency Matrices  
    6.7 Hypercubes and Gray Code  
7 Number Theory  
    7.1 Sieve of Eratosthenes  
    7.2 Fermat’s Factorization Method  
7.3 The Division and Euclidean Algorithms  
7.4 Continued Fractions  
7.5 Convergents  
8 Counting and Probability  
    8.1 Basic Counting Principles  
    8.2 Inclusion-Exclusion  
    8.3 Permutations and Combinations  
    8.4 Generating Permutations and Combinations  
    8.5 Probability  
    8.6 Generalized Permutations and Combinations  
    8.7 Permutations and Combinations with Repetition  
    8.8 Pigeonhole Principle  
    8.9 Probability Revisited  
    8.10 Bayes’ Theorem  
    8.11 Markov Chains  
9 Algebraic Structures  
10 Number Theory Revisited  
11 Recursion Revisited  
12 Counting  
13 Continued  
14 Generating Functions  
15 Graphs Revisited  
16 Networks  
17 Theory of Computation  
18 Theory of Codes  
19 Enumeration of Colors  
20 Rings, Integral Domains, and Fields  
21 Group and Semigroup Characters  
22 Applications of Number Theory  
Bibliography  
Hints and Solutions to Selected Exercises  
Index

## <<离散数学暨组合数学>>

### 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>