

1 The Foundations: Logic and Proofs

- 1.1 Propositional Logic
- 1.3 Propositional Equivalences
- 1.4 Predicates and Quantifiers
- 1.7 Introduction to Proofs
- 1.8 Proof Methods and Strategy

5 Induction and Recursion

- 5.1 Mathematical Induction
- 5.2 Strong Induction and Well-Ordering
- 5.3 Recursive Definitions and Structural Induction

9 Relations

- 9.1 Relations and Their Properties
- 9.3 Representing Relations
- 9.5 Equivalence Relations
- 9.6 Partial Orderings

10 Graphs

- 10.1 Graphs and Graph Models
- 10.2 Graph Terminology and Special Types of Graphs
- 10.3 Representing Graphs and Graph Isomorphism
- 10.4 Connectivity

11 Trees

- 11.1 Introduction to Trees
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- 11.3 Tree Traversal
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12 Boolean Algebra

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- 12.2 Representing Boolean Functions
- 12.3 Logic Gates
- 12.4 Minimization of Circuits