

# X FiniteHelp

Learn faster, party longer

Text used by Indiana University:

Finite Mathematics, Fifth Edition by D.P. Maki and M. Thompson

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## Part 1: Probability Methods

### Chapter 1: Sets, Partitions, and Tree Diagrams

- 1.1 Review of Sets and Set Operations
- 1.2 Venn Diagrams and Partitions
- 1.3 Sizes of Sets
- 1.4 Sets of Outcomes and Trees

### Chapter 2: Probabilities, Counting, and Equally Likely Outcomes

- 2.1 Probabilities Events and Equally Likely Outcomes
- 2.2 Counting Arrangements: Permutations
- 2.3 Counting Partitions: Combinations
- 2.4 Computing Probabilities by Using Equally Likely Outcomes

### Chapter 3: Probability

- 3.1 Probability Measures: Axioms and Properties
- 3.2 Conditional Probabilities
- 3.3 Stochastic Processes and Trees
- 3.4 Bayes Probabilities
- 3.5 Bernoulli Trials

### Chapter 4: Random Variables, Averages, and Statistics

- 4.1 Random Variables and Probability Density Functions
- 4.2 Expected Values and Standard Deviations of Random Variables

## Part 2: Linear Models

### Chapter 5: Systems of Linear Equations

- 5.1 Review of Equations and Graphs of Lines
- 5.2 Formulation and Solution in Two Variables
- 5.3 Formulation and Solution in Three or More Variables

### Chapter 6: Matrix Algebra and Applications

- 6.1 Matrix Notation and Algebra
- 6.2 Matrix Inverses
- 6.3 A Linear Economic Model

### Chapter 7: Linear Programming: Modeling and Graphical Solution

- 7.1 Formulation of Linear Programming Problems
- 7.2 Systems of Linear Inequalities in Two or More Variables
- 7.3 Graphical Solutions of Linear Programming Problems with Two Variables

### Chapter 8: Markov Chains

- 8.1 States, Transitions, Transition Diagrams, Transition Matrices
- 8.2 Basic Properties of Markov Chains
- 8.3 Regular Markov Chains