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Nota di contenuto	Combinatorics Second Edition; Contents; Preface; Chapter 1 The Mathematics of Choice; 1.1. The Fundamental Counting Principle; 1.2. Pascal's Triangle; *1.3. Elementary Probability; *1.4. Error-Correcting Codes; 1.5. Combinatorial Identities; 1.6. Four Ways to Choose; 1.7. The Binomial and Multinomial Theorems; 1.8. Partitions; 1.9. Elementary Symmetric Functions; *1.10. Combinatorial Algorithms; Chapter 2 The Combinatorics of Finite Functions; 2.1. Stirling Numbers of the Second Kind; 2.2. Bells, Balls, and Urns; 2.3. The Principle of Inclusion and Exclusion; 2.4. Disjoint Cycles 2.5. Stirling Numbers of the First KindChapter 3 Polya's Theory of Enumeration; 3.1. Function Composition; 3.2. Permutation Groups; 3.3. Burnside's Lemma; 3.4. Symmetry Groups; 3.5. Color Patterns; 3.6. Polya's Theorem; 3.7. The Cycle Index Polynomial; Chapter 4 Generating Functions; 4.1. Difference Sequences; 4.2. Ordinary Generating Functions; 4.3. Applications of Generating Functions; 4.4. Exponential Generating Functions; 4.5. Recursive Techniques; Chapter 5 Enumeration in Graphs; 5.1. The Pigeonhole Principle; *5.2. Edge Colorings and Ramsey Theory; 5.3. Chromatic Polynomials *5.4. Planar Graphs5.5. Matching Polynomials; 5.6. Oriented Graphs;

5.7. Graphic Partitions; Chapter 6 Codes and Designs; 6.1. Linear Codes; 6.2. Decoding Algorithms; 6.3. Latin Squares; 6.4. Balanced Incomplete Block Designs; Appendix A1 Symmetric Polynomials; Appendix A2 Sorting Algorithms; Appendix A3 Matrix Theory; Bibliography; Hints and Answers to Selected Odd-Numbered Exercises; Index of Notation; Index

Sommario/riassunto

A mathematical gem-freshly cleaned and polished This book is intended to be used as the text for a first course in combinatorics. the text has been shaped by two goals, namely, to make complex mathematics accessible to students with a wide range of abilities, interests, and motivations; and to create a pedagogical tool, useful to the broad spectrum of instructors who bring a variety of perspectives and expectations to such a course. Features retained from the first edition:Lively and engaging writing styleTimely and appropriate examplesNumerous well-chosen exercisesFlex
