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Nota di contenuto	1 Foundational Combinatorial Structures -- 2 Foundational Algebraic Structures -- 3 Mutually Orthogonal Latin Squares -- 4 Affine and Projective Planes -- 5 Graphs -- 6 Higher Dimensional Finite Geometry -- 7 Designs -- 8 Combinatorial Objects -- 9 Discrete Probability - A Return to Counting -- 10 Automorphism Groups -- 11 Codes -- 12 Cryptology -- 13 Games and Designs -- 14 Epilogue -- References -- Glossary -- Solutions to Selected Odd Problems -- Index.
Sommario/riassunto	This undergraduate textbook is suitable for introductory classes in combinatorics and related topics. The book covers a wide range of both pure and applied combinatorics, beginning with the very basics of enumeration and then going on to Latin squares, graphs and designs. The latter topic is closely related to finite geometry, which is developed in parallel. Applications to probability theory, algebra, coding theory, cryptology and combinatorial game theory comprise the later chapters. Throughout the book, examples and exercises illustrate the material, and the interrelations between the various topics is emphasized. Readers looking to take first steps toward the study of combinatorics, finite geometry, design theory, coding theory, or cryptology will find this book valuable. Essentially self-contained, there are very few prerequisites aside from some mathematical maturity, and the little algebra required is covered in the text. The book is also a valuable resource for anyone interested in discrete mathematics as it ties

together a wide variety of topics.