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Titolo	A Brief Journey in Discrete Mathematics // by Randolph Nelson
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-37861-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XIII, 185 p. 1 illus.)
Disciplina	004.0151 511.1
Soggetti	Discrete mathematics Discrete Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introduction -- 2. Let Me Count the Ways -- 3. Syntax Precedes Semantics -- 4. Fearful Symmetry -- 5. All that Glitters is not Gold -- 6. Heads I Win, Tails you Lose -- 7. Sums of the Powers of Successive Integers -- 8. As Simple as $2+2=1$ -- 9. Hidden in Plain Sight -- 10. Running off the Page -- Appendix A. Tools of the Trade -- Appendix B. Notation and Identities Derived in the Book -- Bibliography -- Index.
Sommario/riassunto	The goal of this book is to showcase the beauty of mathematics as revealed in nine topics of discrete mathematics. In each chapter, properties are explored through a series of straightforward questions that terminate with results that lie at the doorstep of a field of study. Each step along the way is elementary and requires only algebraic manipulation. This frames the wonder of mathematics and highlights the complex world that lies behind a series of simple, mathematical, deductions. Topics addressed include combinatorics, unifying properties of symmetric functions, the Golden ratio as it leads to k-bonacci numbers, non-intuitive and surprising results found in a simple coin tossing game, the playful, trick question aspect of modular systems, exploration of basic properties of prime numbers and derivations of bewildering results that arise from approximating irrational numbers as continued fraction expansions. The Appendix contains the basic tools of mathematics that are used in the text along with a numerous list of identities that are derived in the body of the

book. The mathematics in the book is derived from first principles. On only one occasion does it rely on a result not derived within the text. Since the book does not require calculus or advanced techniques, it should be accessible to advanced high school students and undergraduates in math or computer science. Senior mathematicians might be unfamiliar with some of the topics addressed in its pages or find interest in the book's unified approach to discrete math.

2. Record Nr. UNINA9910333138603321

Titolo	Cognition
Pubbl/distr/stampa	Amsterdam, : Elsevier
ISSN	1873-7838
Soggetti	Cognition Cognition - periodicals Cognition - Periodiques cognition Cognitie periodicals. Periodicals. Periodiques.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed
Sommario/riassunto	"International journal of cognitive science."