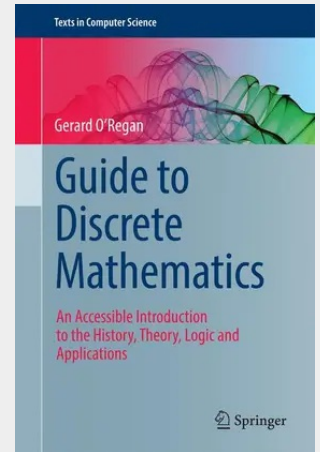


Guide to Discrete Mathematics

An Accessible Introduction to the History, Theory, Logic and Applications

This stimulating textbook presents a broad and accessible guide to the fundamentals of discrete mathematics, highlighting how the techniques may be applied to various exciting areas in computing. The text is designed to motivate and inspire the reader, encouraging further study in this important skill. Features: provides an introduction to the building blocks of discrete mathematics, including sets, relations and functions; describes the basics of number theory, the techniques of induction and recursion, and the applications of mathematical sequences, series, permutations, and combinations; presents the essentials of algebra; explains the fundamentals of automata theory, matrices, graph theory, cryptography, coding theory, language theory, and the concepts of computability and decidability; reviews the history of logic, discussing propositional and predicate logic, as well as advanced topics; examines the field of software engineering, describing formal methods; investigates probability and statistics.

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56,70 €

52,99 € (zzgl. MwSt.)

Nicht mehr lieferbar

Artikelnummer: 9783319445601
Medium: Buch
ISBN: 978-3-319-44560-1
Verlag: Springer
Erscheinungstermin: 26.09.2016
Sprache(n): Englisch
Auflage: 1. Auflage 2016
Serie: Texts in Computer Science
Produktform: Gebunden
Gewicht: 7096 g
Seiten: 368
Format (B x H): 155 x 235 mm

