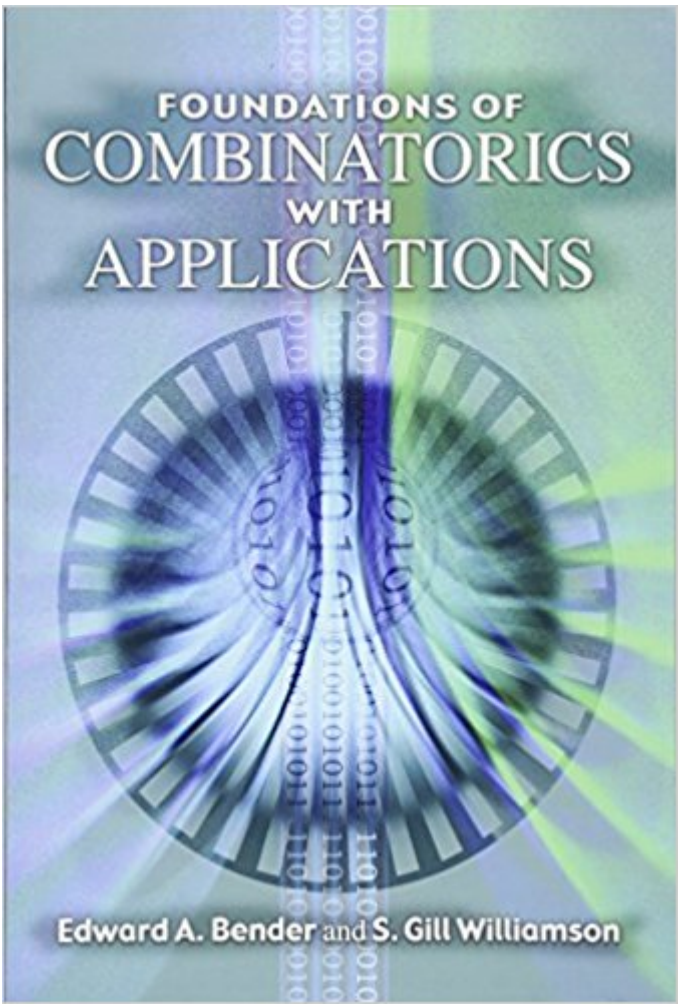
Foundations Of Combinatorics With Applications (Dover Books On Mathematics)



Synopsis

This introduction to combinatorics, the foundation of the interaction between computer science and mathematics, is suitable for upper-level undergraduates and graduate students in engineering, science, and mathematics.The four-part treatment begins with a section on counting and listing that covers basic counting, functions, decision trees, and sieving methods. The following section addresses fundamental concepts in graph theory and a sampler of graph topics. The third part examines a variety of applications relevant to computer science and mathematics, including induction and recursion, sorting theory, and rooted plane trees. The final section, on generating functions, offers students a powerful tool for studying counting problems. Numerous exercises appear throughout the text, along with notes and references. The text concludes with solutions to odd-numbered exercises and to all appendix exercises.

Book Information

Series: Dover Books on Mathematics
Paperback: 480 pages
Publisher: Dover Publications (February 6, 2006)
Language: English
ISBN-10: 0486446034
ISBN-13: 978-0486446035
Product Dimensions: 6.4 x 0.9 x 9.2 inches
Shipping Weight: 1.4 pounds (View shipping rates and policies)
Average Customer Review: 4.4 out of 5 stars 2 customer reviews
Best Sellers Rank: #672,519 in Books (See Top 100 in Books) #129 inÃ Â Books > Science & Math > Mathematics > Pure Mathematics > Combinatorics #7685 inÃ Â Books > Textbooks > Science & Mathematics > Mathematics

Customer Reviews

The book provides a solid introductory course for mathematics and mathematical computer science students. Designed for use in a number of courses, this book is appropriate for rigorous lower division courses, upper division courses in engineering, science, and mathematics, and beginning graduate courses. The material has been fully class-tested and includes many helpful examples and exercises. A solutions manual is also available.

Excellent book. Has an interesting focus or at least a few chapters on applications to programming

(such as recursion, Rooted Planar Trees, graphs) which adds to most books on "classical" combinatorics.

Had been renewing this item with the library for about 5/yrs. Have invented an algorithm for Sudoku that needed to be elevated mathematically so "Foundations of Combinatorics with Applications" became my bible. Plus, have paid enough late fees which would have afforded the purchase.