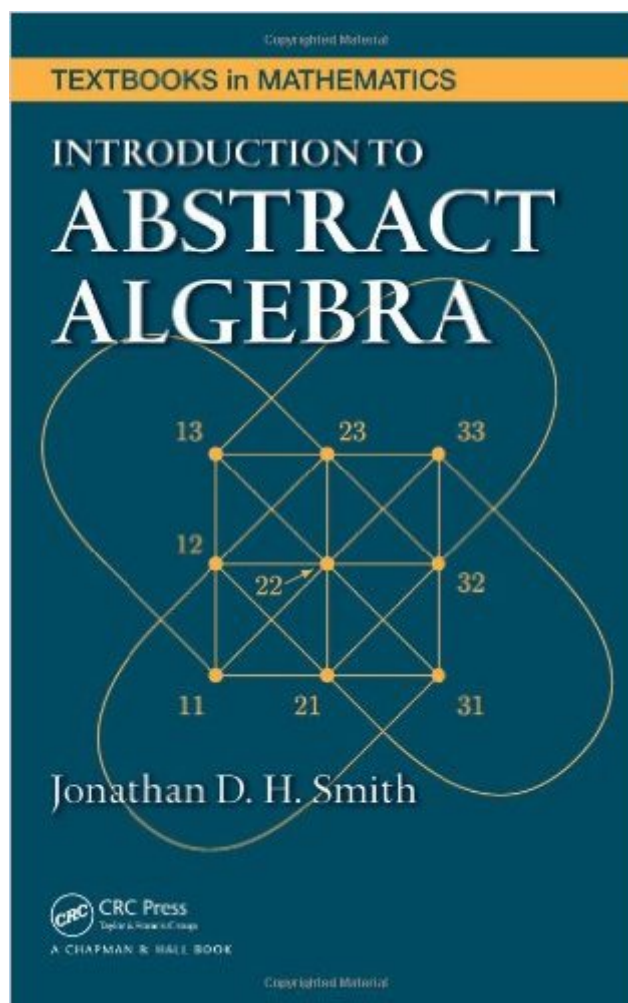


The book was found

Introduction To Abstract Algebra (Textbooks In Mathematics)



Synopsis

Taking a slightly different approach from similar texts, Introduction to Abstract Algebra presents abstract algebra as the main tool underlying discrete mathematics and the digital world. It helps students fully understand groups, rings, semigroups, and monoids by rigorously building concepts from first principles.

A Quick Introduction to Algebra The first three chapters of the book show how functional composition, cycle notation for permutations, and matrix notation for linear functions provide techniques for practical computation. The author also uses equivalence relations to introduce rational numbers and modular arithmetic as well as to present the first isomorphism theorem at the set level.

The Basics of Abstract Algebra for a First-Semester Course Subsequent chapters cover orthogonal groups, stochastic matrices, Lagrange's theorem, and groups of units of monoids. The text also deals with homomorphisms, which lead to Cayley's theorem of reducing abstract groups to concrete groups of permutations. It then explores rings, integral domains, and fields.

Advanced Topics for a Second-Semester Course The final, mostly self-contained chapters delve deeper into the theory of rings, fields, and groups. They discuss modules (such as vector spaces and abelian groups), group theory, and quasigroups.

Book Information

Series: Textbooks in Mathematics

Hardcover: 344 pages

Publisher: Chapman and Hall/CRC; 1 edition (August 20, 2008)

Language: English

ISBN-10: 1420063715

ISBN-13: 978-1420063714

Product Dimensions: 9.3 x 6.2 x 1 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars See all reviews (1 customer review)

Best Sellers Rank: #1,883,953 in Books (See Top 100 in Books) #340 in Books > Science & Math > Mathematics > Pure Mathematics > Algebra > Abstract #351 in Books > Science & Math > Mathematics > Pure Mathematics > Combinatorics #3729 in Books > Textbooks > Science & Mathematics > Mathematics > Algebra & Trigonometry

Customer Reviews

This is one of those math books built from "first principles" onward. It is also done very nicely. Very well formatted, very well organized, proofs short and very clear. A wide variety of exercises at the

end of each chapter. It is what it says it is, an introduction to A.A, covering:- Well ordering of numbers, euclidean algorithms- abstract Function definitions, injective and surjective, isomorphisms, groups of permutations- Uses monoids to help introduce groups- Homomorphisms, Cayley's theorem- Rings, Subrings, Polynomial Rings, Ring homomorphisms- Fields, irreducible polynomials, LaGrange interpolation- Factorization, roots of polynomials, Galois fields- Modules, Vector spaces, Abelian groups- Group actions, orbits, fixed points, alternating groups- Quasigroups, latin squares, quasigroup homomorphisms

[Download to continue reading...](#)

Introduction to Abstract Algebra (Textbooks in Mathematics) Applied Abstract Algebra with Maple™ and MATLAB®®, Third Edition: A Maple and MATLAB Approach, Third Edition (Textbooks in Mathematics) A Course in Abstract Harmonic Analysis, Second Edition (Textbooks in Mathematics) A Book of Abstract Algebra: Second Edition (Dover Books on Mathematics) Introduction to Abstract Algebra Abstract Algebra: An Introduction Solutions Manual to Accompany Introduction to Abstract Algebra, Fourth Edition Introduction to Abstract Algebra: From Rings, Numbers, Groups, and Fields to Polynomials and Galois Theory A-Plus Notes for Beginning Algebra: Pre-Algebra and Algebra 1 A Book of Abstract Algebra: Second Edition Abstract Algebra, 3rd Edition Abstract Algebra First Course in Abstract Algebra Abstract Algebra: Theory and Applications Schaum's Outline of Abstract Algebra (Schaum's Outlines) Contemporary Abstract Algebra A Book of Abstract Algebra 2nd Second edition by Pinter Abstract Algebra, 2nd Edition A First Course in Abstract Algebra (3rd Edition) A Concrete Approach to Abstract Algebra: From the Integers to the Insolvability of the Quintic

[Dmca](#)