Fundamental Concepts of Algebra Dover Books on Mathematics

By Bruce E. Meserve

Dover Publications. Paperback. Book Condition: New. Paperback. 320 pages. Dimensions: 8.4in. x 5.4in. x 0.7in.This uncommonly interesting volume has been a favorite for 30 years, and is now available for the first time in a modestly priced paperback edition. Beginning with the fundamentals of numbers and sets, the author clearly guides the reader through the often discouraging complexities of algebra. Meserve presents the fundamental concepts of algebra illustrated by numerous examples- and, in many cases, the theory is further explicated by suitable sequences of exercises. The authors aim is to introduce the concepts of higher mathematics while bringing the reader to a more thorough understanding of elementary mathematics. His lucid explanations cover these major areas: OUR NUMBER SYSTEM: Sets, Cardinal Numbers, Order Relations, Real Numbers, Fields and Number Systems, more. THEORY OF NUMBERS: Divisibility, Prime Numbers, Bases, Division Algorithm, Decimal Notations, Linear Congruences, more. THEORY OF POLYNOMIALS: Rational Functions, Irreducible Polynomials, Functions, Limits, Continuity, Derivatives, more. THEORY OF EQUATIONS: Zeros of a Polynomial, Change of a Variable, Number of Roots, Quartic Equations, more. DETERMINANTS AND MATRICES: Historical Development, Permutations, Inversions, Transpositions, Cramers Rule, more. CONSTRUCTIONS: The Algebraic Viewpoint, Classical Constructions, Mechanical Angle Trisectors, Linkages, more. GRAPHICAL REPRESENTATIONS: Euclidean and Complex...

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