1. Record Nr. UNINA9910789343003321 Autore Protter Murray H Titolo A first course in real analysis / / by Murray H. Protter, Charles B. Morrey, Jr New York, NY:,: Springer New York:,: Imprint: Springer,, 1991 Pubbl/distr/stampa **ISBN** 1-4419-8744-4 Edizione [Second edition.] Descrizione fisica 1 online resource (xviii, 536 pages) Undergraduate Texts in Mathematics, , 0172-6056 Collana Disciplina 515.8 Functions of real variables Soggetti Real Functions Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto 1 The Real Number System -- 1.1 Axioms for a Field -- 1.2 Natural Numbers and Sequences -- 1.3 Inequalities -- 1.4 Mathematical Induction -- 2 Continuity And Limits -- 2.1 Continuity -- 2.2 Limits --2.3 One-Sided Limits -- 2.4 Limits at Infinity: Infinite Limits -- 2.5 Limits of Sequences -- 3 Basic Properties of Functions on ?1 -- 3.1 The Intermediate-Value Theorem -- 3.2 Least Upper Bound; Greatest Lower Bound -- 3.3 The Bolzano—Weierstrass Theorem -- 3.4 The Boundedness and Extreme-Value Theorems -- 3.5 Uniform Continuity -- 3.6 The Cauchy Criterion -- 3.7 The Heine-Borel and Lebesgue Theorems -- 4 Elementary Theory of Differentiation -- 4.1 The

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Sommario/riassunto

Many changes have been made in this second edition of A First Course in Real Analysis. The most noticeable is the addition of many problems and the inclusion of answers to most of the odd-numbered exercises. The book's readability has also been improved by the further clarification of many of the proofs, additional explanatory remarks, and clearer notation.