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Titolo	Introductory analysis : an inquiry approach / / John D. Ross, Kendall C. Richards
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ISBN	1-351-24672-0 1-351-24674-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (251 pages)
Altri autori (Persone)	RichardsKendall C
Disciplina	515
Soggetti	Mathematical analysis Inquiry-based learning
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Exploring mathematical statements -- Proving mathematical statements -- Preliminary content -- Properties of R -- Accumulation points and closed sets -- Open sets and open covers -- Sequences and convergence -- Subsequences and Cauchy sequences -- Functions, limits, and continuity -- Connected sets and the intermediate value theorem -- Compact sets -- Uniform continuity -- Introduction to the derivative -- The extreme and mean value theorems -- The definite integral : part I -- The definite integral : part II -- The fundamental theorem(s) of calculus -- Series -- Function approximation -- Power series -- Sequences and series of functions -- Metric spaces -- Iterated functions and fixed point theorems -- Brief summary of ordered field properties.
Sommario/riassunto	Introductory Analysis: An Inquiry Approach aims to provide a self-contained, inquiry-oriented approach to undergraduate-level real analysis. The presentation of the material in the book is intended to be "inquiry-oriented'" in that as each major topic is discussed, details of the proofs are left to the student in a way that encourages an active approach to learning. The book is "self-contained" in two major ways: it includes scaffolding (i.e., brief guiding prompts marked as Key Steps in the Proof) for many of the theorems. Second, it includes preliminary material that introduces students to the fundamental framework of logical reasoning and proof-writing techniques. Students will be able to

use the guiding prompts (and refer to the preliminary work) to develop their proof-writing skills. Features Structured in such a way that approximately one week of class can be devoted to each chapter Suitable as a primary text for undergraduates, or as a supplementary text for some postgraduate courses Strikes a unique balance between enquiry-based learning and more traditional approaches to teaching