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Titolo	Solving Problems in Mathematical Analysis, Part I : Sets, Functions, Limits, Derivatives, Integrals, Sequences and Series // by Tomasz Radoycki
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Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XII, 369 p. 33 illus.)
Collana	Problem Books in Mathematics, , 0941-3502
Disciplina	515
Soggetti	Calculus Sequences (Mathematics) Logic, Symbolic and mathematical Sequences, Series, Summability Mathematical Logic and Foundations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Examining Sets and Relations -- Investigating Basic Properties of Functions -- Defining Distance in Sets -- Using Mathematical Induction -- Investigating Convergence of Sequences and Looking for Their Limits -- Dealing with Open, Closed and Compact Sets -- Finding Limits of Functions -- Examining Continuity and Uniform Continuity of Functions -- Finding Derivatives of Functions -- Using Derivatives to Study Certain Properties of Functions -- Dealing with Higher Derivatives and Taylor's Formula -- Looking for Extremes and Examine Functions -- Investigating the Convergence of Series -- Finding Indefinite Integrals -- Investigating the Convergence of Sequences and Series of Functions.
Sommario/riassunto	This textbook offers an extensive list of completely solved problems in mathematical analysis. This first of three volumes covers sets, functions, limits, derivatives, integrals, sequences and series, to name a few. The series contains the material corresponding to the first three or four semesters of a course in Mathematical Analysis. Based on the author's years of teaching experience, this work stands out by

providing detailed solutions (often several pages long) to the problems. The basic premise of the book is that no topic should be left unexplained, and no question that could realistically arise while studying the solutions should remain unanswered. The style and format are straightforward and accessible. In addition, each chapter includes exercises for students to work on independently. Answers are provided to all problems, allowing students to check their work. Though chiefly intended for early undergraduate students of Mathematics, Physics and Engineering, the book will also appeal to students from other areas with an interest in Mathematical Analysis, either as supplementary reading or for independent study.
