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	Autore	Radoycki Tomasz
	Titolo	Solving Problems in Mathematical Analysis, Part II : Definite, Improper and Multidimensional Integrals, Functions of Several Variables and Differential Equations / / by Tomasz Radoycki
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	Disciplina	515
	Soggetti	Calculus
		Differential equations
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		Difference and Functional Equations
		Real Functions
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	Note generali	Includes index.
	Nota di contenuto	Exploring the Riemann and Definite Integral -- Examining Improper Integrals -- Applying One-Dimensional Integrals to Geometry and Physics -- Dealing with Functions of Several Variables -- Investigating Derivatives of Multivariable Functions -- Examining Higher Derivatives, Differential Expressions and the Taylor's Formula -- Examining Extremes and Other Important Points -- Examining Implicit and Inverse Functions -- Solving Differential Equations of the First Order -- Solving Differential Equations of Higher Orders -- Solving Systems of First-Order Differential Equations -- Integrating in Many Dimensions -- Applying Multidimensional Integrals to Geometry and Physics.
	Sommario/riassunto	This textbook offers an extensive list of completely solved problems in mathematical analysis. This second of three volumes covers definite, improper and multidimensional integrals, functions of several variables, differential equations, and more. 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.