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Nota di contenuto	1 Preliminaries -- 2 Measure in Euclidean Space -- 3 Measure Spaces and Integration -- 4 Fourier Series -- 5 Differentiation -- 6 Lebesgue Spaces and Modes of Convergence -- 7 Product Measure and Completion -- 8 Hints -- References -- Index.
Sommario/riassunto	This textbook provides a thorough introduction to measure and integration theory, fundamental topics of advanced mathematical analysis. Proceeding at a leisurely, student-friendly pace, the authors begin by recalling elementary notions of real analysis before proceeding to measure theory and Lebesgue integration. Further chapters cover Fourier series, differentiation, modes of convergence, and product measures. Noteworthy topics discussed in the text include L_p spaces, the Radon–Nikodym Theorem, signed measures, the Riesz Representation Theorem, and the Tonelli and Fubini Theorems. This textbook, based on extensive teaching experience, is written for senior

undergraduate and beginning graduate students in mathematics. With each topic carefully motivated and hints to more than 300 exercises, it is the ideal companion for self-study or use alongside lecture courses.
