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Nota di contenuto	Introduction to Differentiable Functions -- Level Sets and Tangent Spaces -- Lagrange Multipliers -- Maxima and Minima on Open Sets -- Curves in Rn -- Line Integrals -- The Frenet–Serret Equations -- Geometry of Curves in R3 -- Double Integration -- Parametrized Surfaces in R3 -- Surface Area -- Surface Integrals -- Stokes' Theorem -- Triple Integrals -- The Divergence Theorem -- Geometry of Surfaces in R3 -- Gaussian Curvature -- Geodesic Curvature.
Sommario/riassunto	Multivariate calculus can be understood best by combining geometric insight, intuitive arguments, detailed explanations and mathematical reasoning. This textbook has successfully followed this programme. It additionally provides a solid description of the basic concepts, via familiar examples, which are then tested in technically demanding situations. In this new edition the introductory chapter and two of the chapters on the geometry of surfaces have been revised. Some exercises have been replaced and others provided with expanded solutions. Familiarity with partial derivatives and a course in linear algebra are essential prerequisites for readers of this book. Multivariate Calculus and Geometry is aimed primarily at higher level undergraduates in the mathematical sciences. The inclusion of many practical examples involving problems of several variables will appeal to mathematics, science and engineering students.