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Nota di contenuto	1. Introduction -- 2. Analytic Functions and Their Properties -- 3. Singular Points. Laurent Series. Residues -- 4. Conformal Mappings. Elementary Functions -- 5. Fundamental Principles of Conformal Mappings. Transformations of Polygons.
Sommario/riassunto	This book discusses all the major topics of complex analysis, beginning with the properties of complex numbers and ending with the proofs of the fundamental principles of conformal mappings. Topics covered in the book include the study of holomorphic and analytic functions, classification of singular points and the Laurent series expansion, theory of residues and their application to evaluation of integrals, systematic study of elementary functions, analysis of conformal mappings and their applications—making this book self-sufficient and the reader independent of any other texts on complex variables. The book is aimed at the advanced undergraduate students of mathematics and engineering, as well as those interested in studying complex analysis with a good working knowledge of advanced calculus. The mathematical level of the exposition corresponds to advanced undergraduate courses of mathematical analysis and first graduate introduction to the discipline. The book contains a large number of problems and exercises, making it suitable for both classroom use and self-study. Many standard exercises are included in each section to develop basic skills and test the understanding of concepts. Other problems are more theoretically oriented and illustrate intricate points

of the theory. Many additional problems are proposed as homework tasks whose level ranges from straightforward, but not overly simple, exercises to problems of considerable difficulty but of comparable interest.

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