Título: Applied Complex Variables

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Analytic function theory is a traditional subject going back to Cauchy and Riemann in the 19th century. Once the exclusive province of advanced mathematics students, its applications have proven vital to today's physicists and engineers. In this highly regarded work, Professor John W. Dettman offers a clear, well-organized overview of the subject and various applications _ making the often-perplexing study of analytic functions of complex variables more accessible to a wider audience.

The first half of Applied Complex Variables, designed for sequential study, is a step-by-step treatment of fundamentals, presenting superior coverage of concepts of complex analysis, including the complex number plane; functions and limits; the Cauchy-Riemann conditions for differentiability; Riemann surfaces; the definite integral; power series; meromorphic functions; and much more. The second half provides lucid exposition of five important applications of analytic function theory, each approachable independently of the others: potential theory; ordinary differential equations; Fourier transforms; Laplace transforms; and asymptotic expansions. Helpful exercises are included at the end of each topic in every chapter.

The two-part structure of Applied Complex Variables affords the college instructor maximum classroom flexibility. Once fundamentals are mastered, applications can be studied in any sequence desired. Depending on how many are selected for study, Professor Dettman's impressive text is ideal for either a one- or two-semester course. And, of course, the ambitious student possessing a knowledge of basic calculus will find its straightforward approach rewarding to his independent study efforts.

Applied Complex Variables is a cogent, well-written introduction to an important and exciting branch of advanced mathematics _ serving both the theoretical needs of the mathematics specialist and the applied math needs of the physicist and engineer. Students and teachers alike will welcome this timely, moderately priced reissue of a widely respected work