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Autore	Rahmani-Andebili Mehdi
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Fourier Integral, Complex Fourier Integral, Fourier Transform, and Half-Domain Fourier Sine and Cosine Transforms: Problems -- 10. Fourier Series, Half-Domain Fourier Sine and Cosine Series, Complex Fourier Series, Fourier Integral, Complex Fourier Integral, Fourier Transform, and Half-Domain Fourier Sine and Cosine Transforms: Solutions of Problems -- 11. Partial Differential Equations: Problems -- 12. Partial Differential Equations: Solutions of Problems.

Sommario/riassunto

This study guide is designed for students taking courses in engineering mathematics and mathematical methods in science. The textbook includes problems with detailed solutions to teach students the subjects in detail and partially and fully solved exercises with hints to required formulas and answers, enabling students to practice independently and guiding them through problem-solving procedures. The material covered in the book includes complex functions, complex transformations, singularities of complex functions, complex series, Taylor and Laurent series expansions, residue, complex integration, Fourier series, half-domain Fourier sine and cosine series, complex Fourier series, Fourier integral, complex Fourier integral, Fourier transform, half-domain Fourier sine and cosine transform, and partial differential equations. Offering detailed solutions, multiple problem-solving methods, and clear explanations of concepts, this hands-on tutorial will improve students' problem-solving skills and foster a solid understanding of engineering mathematics and mathematical methods in science.
