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Autore	Allen Myron B. <1954->
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Concepts; 5.4 The QR Method Implementation; 5.5 Problems; 5.6 References; 6 Numerical Integration; 6.1 Introduction; 6.2 Newton-Cotes Formulas; 6.3 Romberg and Adaptive Quadrature; 6.4 Gauss Quadrature; 6.5 Problems; 6.6 References; 7 Ordinary Differential Equations; 7.1 Introduction; 7.2 One-Step Methods; 7.3 Multistep Methods: Consistency and Stability; 7.4 Convergence of Multistep Methods; 7.5 Problems; 7.6 References; 8 Difference Methods for PDEs; 8.1 Introduction
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Sommario/riassunto

Written for graduate students in applied mathematics, engineering and science courses, the purpose of this book is to present topics in "Numerical Analysis" and "Numerical Methods." It will combine the material of both these areas as well as special topics in modern applications. Included at the end of each chapter are a variety of theoretical and computational exercises.
