kind. Again, numerous general and concrete examples are interwoven into the development. The emphasis throughout is on obtaining error bounds.

Although the book is primarily concerned with the numerical analysis of nonlinear equations, it is not, and is not claimed to be, a definitive study of this topic. The development is based primarily on the contributions of the author, his students, and colleagues, and the relevant Russian and American work receives considerably less attention.

The translation reads well, and relatively few misprints were noted. There are 26 exercises.

J. M. O.

3 [2.05, 2.10, 2.20, 2.55, 3, 4].—GERARD P. WEEG & GEORGIA B. REED, *Introduction to Numerical Analysis*, Blaisdell Publishing Co., Waltham, Mass., 1966, vii + 184 pp., 24 cm. Price $7.50.

This book is intended to serve as a text for a one-term introductory course in numerical analysis for sophomore and junior level students; the prerequisites are courses in calculus and introductory differential equations. The material is presented in eight chapters: (1) computational errors; (2) roots of algebraic and transcendental equations; (3) finite differences and polynomial approximation; (4) numerical integration; (5) numerical solution of ordinary differential equations; (6) linear algebraic equations; (7) least-squares approximation; (8) Gaussian quadrature. The level of sophistication is in accord with the stated prerequisites.

In recent years many good textbooks having essentially the same goals and prerequisites as this text, have appeared; among these are the books by W. Jennings and N. Macon. For this reason, a new textbook must justify itself either by presenting different or more recent material than is offered in other standard texts (à la Romberg integration) or by giving an outstandingly lucid and enlightening exposition. In the reviewer's opinion, this textbook does not completely justify itself in either respect. Although the material is basic and in accord with most standard texts, the book has some important defects in arrangement and emphasis. For example, Lagrange interpolation is introduced for the first time in Chapter 8, whereas Chapter 3 is devoted entirely to the Newton-Gregory form of the interpolation polynomial. The most serious drawback of this text lies in its manner of presentation. Many common methods and concepts, such as iteration, and approximation of functions, are hastily and inadequately developed. Similarly, one finds some basic theoretical results avoided, to the detriment of the student; thus from remarks on pp. 63 and 69, the reader would be led to think that only round-off errors might limit the use of an interpolation polynomial of high order in approximating a function on an interval; this is not true, and Runge's famous example should be mentioned.

In general, this book is not as readable and instructive as is required for an introductory text.

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