

and waiting time, epidemiology, particle physics, turbulence, prediction, information theory, time series, etc. There are a number of illustrative numerical examples.

DONALD A. DARLING

*Numerische Behandlung von Differentialgleichungen.* By L. Collatz. Berlin, Springer, 1955. 15+526 pp., with 118 illustrations and a portrait. Paperbound, 56 DM.; clothbound, 59.60 DM.

The first edition of Collatz's *Numerische Behandlung* (reviewed in this Bulletin, vol. 59, pp. 94-96) was noteworthy as the most extensive and most complete treatment of the numerical solution of differential equations that had yet appeared. The second edition now at hand continues to maintain this leadership. It is still larger (526 pages) and has undergone considerable reorganization. A major part of the reorganization consists in the insertion of a new chapter at the beginning devoted to basic material needed later, such as finite differences, interpolation, formulas for numerical differentiation and integration, Green's theorem and related topics, least squares, orthogonality, and concepts from functional analysis. The remaining five chapters cover substantially the same material as in the first edition except for the topics now collected in Chapter I and the expansion of the remaining topics by more detailed treatment and the addition of new items. The high character of the first edition has been well preserved.

W. E. MILNE

*Curso de análisis matemático.* Vol. 3. By C. de Losada y Puga. Lima, Universidad Católica del Perú, 1954. 22+814 pp.

This final volume of Professor de Losada y Puga's treatise covers trigonometric series, divergent series, functions of a complex variable, differential equations, calculus of variations (very briefly) and probability. The exposition is for the most part at the advanced calculus level, and in a leisurely and readable style. The section on differential equations (350 pages) is more up-to-date and detailed than many textbooks on the subject in English.

R. P. BOAS, JR.

*Opere.* Vol. 3, *Sistemi tripli ortogonali.* By L. Bianchi. Ed. by the Unione Matematica Italiana with the assistance of the Consiglio Nazionale delle Ricerche. Rome, Cremonese, 1954. 6+851 pp. 7500 lire.

For the first two volumes cf. this Bulletin, vol. 60, p. 288.