ted is a discussion of systems of n equations, but the case $n=2$ is considered. Another omission is an introduction to the study of the Laplace, wave, and heat equations.

With the exceptions noted above, this book should serve as an excellent introduction to the study of differential equations on the line. The total amount of material covered is just about right for a course of one semester at the senior undergradute or first year graduate level.

Two small slips were noted. On page 64 the author states that $\exp((A+B)x)=(\exp Ax)(\exp Bx)$, where A, B are matrices. This is not in general true, but it is valid in the case $B=-A$ to which it is applied. On page 169, $b(r, t)$ in formula (3.5.2) should be a *vector* of m columns and one row, instead of an m by m matrix as stated.

EARL A. CODDINGTON

Trigonometric series. A survey by R. L. Jeffery. Canadian Mathematical Congress Lecture Series, no. 2, Section III, 1953. University of Toronto Press, Toronto, 1956. 39 pages. $2.50.

Part I is a brief sketch of the high points in the historical development of Fourier series. It is fairly standard except for a discussion of the following problem: Given a function, not necessarily Lebesgue integrable, which is representable as the sum of a trigonometric series, to determine the coefficients. The author indicates the relationship between this and the problem of reconciling the Newton and Leibnitz integrals, in the solutions given by Denjoy, Marcinkiewicz and Zygmund, Burkill, and James. Part II contains detailed proofs of the theorems on Fourier series stated in Part I, as well as a sketch of the methods of James, using his P^2-integral based on the ideas of Perron.

N. J. FINE

Vector spaces and matrices. By Robert M. Thrall and Leonard Tornheim. Wiley. 1957, 12+318 pp. $6.75.

In the preface the authors announce that "In the present textbook we have chosen to proceed simultaneously at two levels, one concrete and one axiomatic. . . . Each new property of a vector space is first discussed at one level and then at the other. . . . We feel that this dual approach has many advantages. It introduces the student to the elegance and power of mathematical reasoning based on a set of axioms and helps to bridge the gap that lies between the pre-eminence of problem solving found in most elementary undergraduate courses and the axiomatic approach that characterizes much modern research in mathematics."