

the typical reader will need the equivalent of a master's degree in mathematics, and preferably more. This is partly because the material is fairly difficult in itself, but partly because the theoretical exposition is not lucid. The author goes from topic to topic with few signposts to help the reader, and none for the scanner. Although there are many derivations and proofs, results are nowhere summarized as theorems. The reviewer found much of the theory hard going, and occasionally suspected the author of formal manipulation without any justification within the reader's presumed knowledge (for example, in replacing a polynomial in a scalar by a polynomial in a matrix in equation (2.06.5) and after (4.0.7)).

The publishers have done a fine job in preparing the book. The few misprints noted were minor. The equation numbers might well have been simplified; why have (2.1322.5) or (2.201.10)?

In summary, the reviewer considers the book as a first definitive treatise on the subject matter and spirit of modern numerical analysis. As such, it is unique in a new area, and gives background, essential ideas, and references for a great number of methods never before brought together in a book. It is oriented toward the exploitation of automatic digital computers. While hard to read in spots, it will be a welcome addition to the library of every one interested in digital computation.

GEORGE E. FORSYTHE

*Tables of integral transforms.* Prepared under the direction of A. Erdélyi. New York, McGraw-Hill, 1954. 20+391 pp. \$7.50.

This is the fourth of a series of five volumes prepared in part from notes left by the late Harry Bateman. The first three are entitled *Higher transcendental functions* and are devoted to a description of the properties of such functions; the volume under review together with a fifth to follow form a table of integrals involving such functions and intended as "companions and sequel" to the first three. The whole work is dedicated to the memory of Harry Bateman, and was prepared under the direction of A. Erdélyi with the collaboration of Research Associates: W. Magnus, F. Oberhettinger, F. G. Tricomi; Research Assistants: D. Bertin, W. B. Fulks, A. R. Harvey, D. L. Thomsen, M. A. Weber, E. L. Whitney; and Vari-typist, R. Stampfel. The project was performed at the California Institute of Technology, supported by a grant from the Office of Naval Research.

The integrals of the present volume are classified in seven chapters under the following types of transforms: Fourier cosine, Fourier sine, exponential Fourier, Laplace, inverse Laplace, Mellin, inverse Mellin.