other two authors. In this sense, his book is the most complete of the three. Unfortunately, too many of his proofs are ungainly and complicated. Essentially, this stems from ineffective organization. In some places (compare his development of topology on the real line with Rudin's, for example) proofs could be simplified by rearranging the theorems. In other places (note the reviewer's comment on his treatment of differentiation of Lebesgue integrals) he repeats an argument several times because he fails to pull out an intermediate result which could be reused. Thielman falls in between. His proofs are not particularly striking, but standard and reasonably efficient and uncomplicated. He does not dig as deeply as Goffman, but more deeply than Rudin. The blight on Thielman's book is the surprising number of inaccurate statements and incomplete proofs. On a first reading the reviewer found ten examples, each of a flaw of one of the following types: informal statements of results that are not true, failure to consider all cases in a proof, use of concepts which have not been defined, use of results either without proof or before they have been proved. One such example was mentioned in the discussion of Fubini's theorem above. To cite one other, Thielman's proof that the union of a denumerable set of denumerable sets is denumerable tacitly assumes that the sets are disjoint.

Each of the three authors writes a very pleasing line of prose; so there is very little choice to be made on that score. Also, each book has an adequate supply of worthwhile exercises. The reviewer is unable to rate one above the other on this point.

There are a few typographical errors in each book. Those worth mentioning involve errors in cross references: Rudin—p. 74, line 22, for 4.1 read 4.2. Thielman—p. 97, line 6, for 3.2.2 read 3.2.1. Thielman—p. 184, line 7 from bottom, for 9.8.1 read 9.11.1.

M. E. Munroe

Numerical solution of differential equations. By W. E. Milne. New York, Wiley, 1953. 11+275 pp. $6.50.

This book contains the first general treatment, in English, of numerical methods for solving differential equations. The author has been able to cover in the 275 pages only those classes of problems and methods which he considers most important. The methods are presented very clearly, with completely worked numerical examples, and should be easily mastered by the average reader. On the other hand it is evident from the choice of methods, particularly for problems involving latent roots of matrices and elliptic differential equations,