A programmed course in calculus, prepared by The Committee on Educational Media of the Mathematical Association of America, with the support of the National Science Foundation. W. A. Benjamin Inc., New York, 1968. Five volumes - paperback. xii + 295; xiii + 237; xiii + 129; xii + 213; xiii + 121 pages. U.S. $2.95 each.

Situations in which this text may be useful are indicated in the following quotation from the preface:

"The eight chapters of this programmed text are designed for a solid but normal first-year calculus course in college. Where students are on a five-course schedule per semester, the material of the last chapter is sometimes postponed to the sophomore year. The text may well be the basic text for the calculus course, or it can be used as material supplementary to a conventional text.

"The use of the programmed form in these volumes means that an immediate response is required after presentation of information, and a correct answer is immediately given for comparison. The essence of the programmed form is the activity demanded of the student and the control over the sequence of this activity. The programmed approach is likely to be particularly advantageous in cases where the student is expected to be independent in his work or in cases where the time allowed for class meetings is relatively small."

The eight chapters mentioned are entitled: Functions, limits, continuity; Derivative and applications; Bounded sets and bounded functions; The definite integral; Transcendental functions; Applications of the definite integral; Techniques of integration; Infinite sequences and series. Each volume also contains sections entitled "Statements for Reference" and "Glossary of Symbols".

The treatment is indeed solid. The proofs of the elementary theorems depend upon the theorem that a real function which is continuous on a closed interval is uniformly continuous on that interval. This theorem is not proved, but the notion of uniform continuity is presented in some depth.

The development of integration and transcendental functions is along currently fashionable lines. One who adopts this text is pretty well bound to follow these lines. It will be found much more difficult to deviate from a programmed course than from a conventional text.

However, if classroom time is limited, or there is a large number of students for whom a standard treatment would be suitable, then this text of five paperbacked volumes may well be considered for adoption.

S. Trott, University of Toronto

Intermediate mathematical analysis, by A. F. Labarre, Jr. Holt, Rinehart and Winston of Canada Limited, 833 Oxford Street, Toronto 18, 1968. xiii +253 pages. Can. $9.85.

This book is designed to "bridge the gap between elementary calculus and advanced calculus": the material covered is therefore pretty standard, and the raison d'être of this book is the convenience of having the material gathered together in one slim volume. The book covers: Sets, relations and functions; Real numbers; Limits; Compactness in R; Continuity; Differentiability; Integrability; Uniform convergence of sequences; Fourier series.

H. Thurston, University of New Brunswick

543