

SHORTER NOTICE.

Elementary Mathematical Analysis. By JOHN WESLEY YOUNG and FRANK MILLETT MORGAN. New York, The Macmillan Company, 1917. 548 pp.

THIS book is intended to meet the need which has been felt by many during the last years, of a more unified course in freshman mathematics which, without unduly neglecting matters of technique, places more than the usual emphasis upon a genuine understanding of the mathematical concepts and methods. The book has its faults, as have most books, but, in the opinion of the reviewer, it is a fine contribution to the problems in hand and is really a class room text.

The central theme is the idea of functionality. This idea is skillfully kept before the reader's mind, though in the consideration of some topics, as that of trigonometric relations, it is rather lost sight of. This seems to be inherent in the situation and it is possibly unwise and somewhat artificial to insist that everything in such a course must associate itself immediately with the idea of functionality, important and far reaching as that idea is.

The material of the book is presented under five general headings.

In Part I (Introductory Conceptions) thirty-two pages are devoted to the general subject of functions and their representation and thirty-one pages to algebraic principles and their connection with geometry. Great pains is taken to familiarize the reader with the notion of functionality and with the geometrical representation of functions. Many concrete examples are exhibited in detail. Under the second heading is given an elaborate discussion of numbers and their geometrical representation, a statement of the fundamental laws of algebra and a review of elementary algebraic technique.

In Part II two hundred and twenty-nine pages are devoted to the elementary functions: the linear function; the quadratic function; the cubic function; the function x^n ; the trigonometric functions with a special chapter on trigonometric relations; the logarithmic and exponential functions; numerical computation, including logarithmic solution of triangles, the slide rule, logarithmic paper; the implicit quadratic