

SHORTER NOTICES.

Elements of Plane Trigonometry. By D. A. MURRAY. New York, Longmans, Green, and Company, 1911. ix + 136 pp. + 95 pp. of tables.

PROFESSOR Murray's *Elements* gives a much briefer treatment of the subject than the *Plane Trigonometry* previously published by him. Among the topics receiving more or less special emphasis are the variation, periodicity, and graphs of functions, general expressions for all angles having one function in common, and methods of checking solutions.

Problems requiring the use of trigonometric tables are introduced almost at the very beginning of the book. One wonders if it might not be better to defer the first use of such tables, which, for some reason or other, the student usually finds rather difficult, until he shall have grown more familiar with the meaning of trigonometric functions by use of the functions of 45° , 30° , and 60° , and by the solution of problems such as those involving the determination of the remaining functions of an angle from a single given function, and the solution of right triangles from one side and a function of one angle.

In the matter of oblique triangles, the various formulas connected with the solution of such triangles are first worked out merely as "relations between the sides and angles of a triangle." Then, in a separate chapter the solution of triangles is taken up and the formulas previously developed are made use of. While this arrangement may serve to emphasize "theory for the sake of theory," it would seem that a combination of the two chapters in one might, without detracting much, if any, from this emphasis, make the work more simple and interesting for the student.

CORA B. HENNEL.

A Brief Course in Analytic Geometry. By J. H. TANNER and JOSEPH ALLEN. New York, American Book Company, 1911. x + 282 + xxiv pp.

THE student beginning the study of analytic geometry usually finds himself, almost at the very start, in the midst of