Plane Geometry. By JOHN W. YOUNG and ALBERT J. SCHWARTZ. New York, Henry Holt and Company, 1915. 223+x pp.

THE need of a textbook such as Young and Schwartz's Plane Geometry is perhaps best stated by the authors themselves in their preface. "As a result of the widespread discussion during recent years on the improvement of our courses in elementary geometry, the majority of thoughtful teachers appear to have reached substantial agreement on at least one point: To begin the course in plane geometry in the traditional formal manner is pedagogically irrational and scientifically unnecessary. There has accordingly arisen an increasing demand for a textbook which will supply a pedagogically rational approach to the study of plane geometry without sacrificing the logical structure of the subject."

The authors have departed from the orthodox formula for writing plane geometry texts. They do not begin with a formal (and in the eyes of the student also formidable) set of definitions and axioms followed by a proposition of the type: All right angles are equal. Instead the first chapter of 46 pages seeks to make the student familiar with the common geometric concepts. In the second chapter such notions as undefined term, fundamental proposition, geometric proof are clearly explained. Then begins the formal geometry. One finds considerable change in the list of propositions from what one ordinarily sees in an elementary text. Very many theorems which neither serve as links in the logical development nor are important in themselves have been omitted. In the space thus gained the definitions and elementary applications of the trigonometric ratios are introduced.

The authors have made geometry 'easy' in the sense that their explanations and proofs are put in such language as to be intelligible to the average student. The problems are numerous and well selected. Mechanically the book is well gotten up. The use of two color printing for the figures, the auxiliary and construction lines being in a quiet green (not bright red), helps materially. It may be that the reviewer is prejudiced since the book happens to agree with his notions of what an elementary plane geometry text should contain, and it is for that reason that he believes that it is a most welcome and valuable addition to our small list of *good* mathematical textbooks.

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