

A Geometric Introduction to Linear Algebra, by D. Pedoe.  
Wiley, New York, 1963. xi + 224 pages. \$5.95.

This elementary treatment of linear analytic geometry and algebra is a gentle geometric approach to the subject suitable for the use of senior high school students or university freshmen.

N. D. Lane, McMaster University

Notes on Plane Coordinate Geometry, by B. Abrahamson.  
Butterworths, London, 1963. vii + 131 pages. \$5.75.

This is a very attractive introduction to the elements of Euclidean coordinate geometry of the plane. The aims are quite modest: it leads the student from the very beginning of coordinate geometry to the equation of the straight line and the circle, and the foundations of trigonometry, assuming the knowledge of some elementary linear algebra, in particular of low order determinants.

The book is written with an amount of rigour and elegance seldom found at this level. All results are derived from the two assumptions that to each point corresponds exactly one ordered pair of coordinates and that the distance between two points is given by the usual Pythagorean formula. Emphasis is on those ideas which are of importance in the development of more advanced geometry, e. g. the study of invariants under a group of motions and the classification of motions by fixed elements. Vectors are stressed, orientation questions are carefully discussed. The book is full of delightful surprises, climaxing in the proof of a 'Jordan curve theorem' for polygons.

Some exercises develop routine skills, some give very stimulating little problems. They are probably not numerous enough for some readers.

The book, intended for an intelligent beginner, might not fit into the usual freshman courses, but it could be read with much profit by any interested freshman or bright high school student, and it might be of use in summer courses for teachers. One can only wish it a wide circulation.

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