appear in the problem of a rolling circle on a circle and a straight line (Chapter III). The final chapter contains the familiar treatment of families of curves and their envelopes. The exposition is lucid and there is a wealth of helpful diagrams.

R. P. GILLESPIE

VILENKIN, N. YA., *Successive Approximation* (Popular Lectures in Mathematics, Pergamon Press, Oxford, 1964), ix+70 pp., 15s.

The primary aim of this booklet is to present a number of methods for the approximate solution of equations. The author lectured on this subject to senior pupils at the school mathematics circle at Moscow State University and he has made use of the content of this lecture in the preparation of this book. The appearance of a book on this subject, which can be read by senior school pupils, is timely, since, increasingly, approximation methods are being introduced into the schools. Recent well-attended Symposia on the art of teaching approximations, held in London and Glasgow under the auspices of the Institute of Mathematics and its Applications, showed how widespread the interest is in this subject.

The book under review should prove useful, although it seems a pity that so much space is taken up with the introduction of the idea of a derivative, with which most of the potential readers of the book will be already familiar. R. P. GILLESPIE

EHRENFEUCHT, ANIELA, *The Cube Made Interesting* (Popular Lectures in Mathematics, Pergamon Press, Oxford, 1964), xii+83 pp., 21s.

This book is a translation of the original *Ciekawyszéscian*, published by the Polish Scientific Publishers in 1960, which was based on talks to teachers and school children. These talks were illustrated by the use of coloured models and in the book the place of these models is taken by a large number of " anaglyphs ", drawings in red and blue which have to be examined using spectacles in which one glass is blue and the other red. Such a pair of glasses is supplied with each copy of the book and when a drawing is examined through the glasses, one sees a solid model.

The book deals with planes of symmetry and axes of symmetry of the cube, the group of rotations of the cube, constructions made from coloured cubes and blocks that can be cut from a cube. The last chapter deals with the problem of sliding a cube of edge 31 in. through a cube of 30 in. In view of the introduction of the idea of a group into school mathematics, this book should provide interesting additional reading for senior pupils. While the anaglyphs are helpful, many readers will wish to construct models for themselves, as is suggested by the author in his preface.

R. P. GILLESPIE

ADAMSON, I. T., *Introduction to Field Theory* (Oliver and Boyd Ltd., Edinburgh, 1964), viii+180 pp., 12s. 6d.

This book is a most welcome addition to the University Mathematical Texts series. By careful selection of his material and a rigorous policy of cutting out all superfluous words, Dr Adamson has succeeded in his aim of bringing the reader from basic definitions to important and interesting results in the course of 174 pages. This should enable the reader to appreciate the richness of the subject and the elegance of its methods. Very little previous knowledge of abstract algebra is required but a reader with no experience of the subject will find that the close reasoning involved will make his progress appear slow if measured by the page and not the content.

The four chapters cover respectively: elementary definitions, extensions of fields and ways of classifying them, Galois theory of normal separable extensions of finite degree, and applications of the preceding theory including ruler-and-compasses constructions and solution by radicals. Careful attention has been paid to notation, including the use of bold type in some places and the book is carefully printed throughout. C. M. GLENNIE