

Throughout the book the ground field is taken to be of characteristic zero and in fact is really intended to be the field of complex numbers.

The first seven chapters are confined to plane algebraic curves, a useful survey of the first six chapters being given at the beginning of Chapter VII. Chapter I contains a survey of the classical theory of algebraic curves. In the short Chapter II, Bezout's Theorem is introduced, the representation of point sets by two-way forms being used. In Chapter III an account is given of the four types of extension field of the ground field which are used in the book. Chapter IV deals with quasi-branches and branches. Chapter V contains the statement of Puiseux's Theorem (proof in Appendix B). The idea of a *place* on a curve is introduced and results on intersection theory given in terms of places. Chapter VI deals with some traditional theory of plane algebraic curves. Chapter VII contains the theory of the function field.

Chapter VIII extends ideas and notation in the earlier chapters to curves in S_r , r -dimensional projective space.

Chapter IX considers curves in S_3 using the theory of Cayley forms and briefly mentions how the theory proceeds for curves in S_r ($r > 3$).

Chapter X deals with the theory of linear series on a curve. It contains a discussion of Noether's Theorem and leads up to a proof of the Riemann-Roch Theorem.

Chapter XI deals with the rather special topic of infinitely near points in the plane. This is a useful introduction to the recent generalisations in this subject.

J. HUNTER

GOW, MARGARET M., *A Course in Pure Mathematics* (English Universities Press, 1960), 619 pp., 40s.

This book aims to cover the syllabus in Mathematics for Part I of the London B.Sc. General Degree, and also to provide a suitable course in Mathematics ancillary to Honours courses in Physics, Chemistry, etc.

Apart from the inadequate treatment of inequalities, Dr. Gow has achieved the first aim. However, several important topics (Vectors, Fourier Series, Bilinear Transformations) of interest to ancillary students are omitted.

The theory of determinants is rather sketchy. Even at this level, determinants can be defined in terms of permutations and so yield the working rules.

The treatment of complex numbers is presented in great detail and well illustrated by diagrams, but on page 103 a complex number is *defined* as a *point* in the Argand diagram!

Despite a few blemishes, the treatment throughout is clear and straightforward and there are many worked examples and excellent sets of exercises.

B. SPAIN

DEFARES, J. G., AND SNEDDON, I. N., *An Introduction to the Mathematics of Medicine and Biology* (North Holland Publishing Co., Amsterdam, 1960), 663 pp., 94s.

This well-written book is intended to help research workers in the biological and medical sciences. Since, however, it assumes that the reader has ceased the study of mathematics for some years it can be recommended to anyone commencing his studies at an elementary level.

After the algebraic preliminaries and a discussion of functions, the differential and integral calculus is considered. There is a chapter on the logarithmic and exponential functions defined by means of integrals rather than series (on the whole, series are avoided in the book, though there is a proof of Maclaurin's theorem). A chapter on integrals, including the Gamma function, Beta function and Laplace