tity representation to G_0. The remaining space groups are then derived in detail and classified within the rhombohedral, hexagonal, monoclinic, rhombic, tetragonal, and cubic systems.

The two final sections are devoted to the study of special families of space groups in n dimensions, such as those arising from the cyclic, symmetric, and alternating groups on n symbols.

The book is clearly written and self-contained, except in the section beginning on p. 91 where the ternary arithmetic classes are listed. Here the reader without previous knowledge of the notations of crystallography may have some difficulty reading the rather condensed summary of the 73 ternary arithmetic classes. The groups of motions in the plane are illustrated by excellent figures, but no attempt is made to illustrate the 230 space groups by drawings such as are given by Wyckoff. The emphasis in the book is clearly on the mathematical derivation rather than the pictorial representation of the 230 space groups.

J. S. FRAME

Methods of mathematical physics. By Harold Jeffreys and Bertha S. Jeffreys. New York, Macmillan; Cambridge University Press, 1946. 9+679 pp. $15.00.

The book starts with a substantial chapter on real variable—Dedekind sections, sequences, series, continuity, integration, mean value theorems. Chapters 2, 3, and 4 cover vectors, cartesian tensors, and matrices, and these are followed by chapters on multiple integrals and potential theory. Operational methods and their applications occupy two chapters, and a long chapter is devoted to numerical methods. A short chapter on calculus of variations brings us to what may be regarded as the mid-point of the book, attained almost entirely without the use of complex numbers.

The essential elements of the theory of functions of a complex variable are covered in two chapters. This opens up a wide field, and chapters follow on conformal representation, Fourier's theorem, factorial (gamma) functions, linear differential equations of the second order, asymptotic expansions, equations of wave motion and heat conduction (three chapters), Bessel functions and applications, confluent hypergeometric functions, Legendre functions, elliptic functions. The book ends with explanatory notes, an appendix on notation, and an index.

Each chapter has a set of examples, a stimulating collection culled from examinations of the Universities of Cambridge, London, and Manchester.