reduction of singularities which includes a discussion of his proof for threefolds, and Chapter III presents a survey of the theory of linear systems which culminates in an account of the work of Zariski, Matsusaka and Akizuki on the Bertini theorems. In Chapter IV the canonical system is introduced, first in the classical case by means of adjoint systems and then in the abstract case with the help of differential forms. Chapter V is devoted to questions relating to the arithmetic genus and the virtual characters of the canonical system. The contributions of Zariski, Severi, Todd, and the joint contribution of Zariski and the reviewer are described. The long Chapter VI is concerned with algebraic and rational equivalence and includes among other topics a very brief account of Zariski's work on holomorphic functions and the degeneration principle. An overly condensed account of the theory of Abelian varieties is given in Chapter VII. It contains a description of the constructions of the Jacobi variety by Weil and Chow, of Neron's work on the base for algebraic equivalence, and Matsusaka's work on total families and Picard varieties. Chapter VIII returns to the question of canonical systems and presents an account of Todd's work and Segre's theory of covariant sequences. Chapter IX contains a brief exposition of the theory of algebraic varieties as complex analytic manifolds. It includes a discussion of currents, harmonic forms, complex operators and Chern classes. A discussion of the theory of stacks and complex line bundles for varieties over the complex field opens Chapter X. (The author expresses regret that a report on Serre's algebraic sheaf theory could not be included because of its length.) The chapter continues with a description of the applications that Kodaira and Spencer have made of this theory to the construction of Picard varieties and to proving a theorem of the Riemann-Roch type for adjoint systems. It concludes with a summary of Hirzebruch's work on the Riemann-Roch theorem. The final Chapter XI describes miscellaneous results connected with the theory of complete continuous systems.

H. T. MUHLY

Functions of complex variables. By Philip Franklin. Englewood Cliffs, Prentice Hall, Inc., 1958. 9+246 pp. $6.95.

After an introductory chapter on complex numbers, the text covers continuity and differentiability of functions of a complex variable, power series, the elementary functions, conformal mapping, Cauchy's theorem and Cauchy's integral formula, Taylor and Laurent expansions, calculus of residues.

The book seems well suited to a term-course in complex variable.

Although it appears to be primarily intended for students who are not majoring in mathematics, the standard of rigor is rather high; the treatment of Cauchy's theorem is close to that in Ahlfors' *Complex variables*.

The book contains many exercises, most of them rather easy.

In some instances the nomenclature is a bit old-fashioned (functions are allowed to be "multiple-valued," connected = arcwise connected).

Misprints are rather plentiful.

W. H. J. FUCHS

BRIEF MENTION

Reflections of a mathematician. By L. J. Mordell. Montreal, Canadian Mathematical Congress, 1959. 7+50 pp.

A personal account, partly psychological and partly autobiographical, of how mathematics as a subject and as an activity appears now to a distinguished number theorist.

Gödel's proof. By E. Nagel and J. R. Newman. New York, New York University Press, 1958. 9+118 pp. $1.75 paper, $2.95 cloth.

An excellent nontechnical account of the substance of Gödel's celebrated paper *On formally undecidable propositions of Principia Mathematica and related systems*, which makes the leading ideas of the proof intelligible to the nonspecialist.

Conduction of heat in solids. 2d ed. By H. S. Carslaw and J. C. Jaeger. New York, Oxford University Press, 1959. 10+510 pp. $13.45.

A revision of the edition of 1946 carried out by the second author. Two new chapters have been added, one on integral transform notation and one on numerical methods.

Theory of relativity. By W. Pauli. Trans. from the German by G. Field, with supplementary notes by the author. New York, Pergamon, 1958. 14+241 pp. $6.00.

Translated from the article *Relativitätstheorie* in Encyklopädie der mathematischen Wissenschaften, vol. V19, Leipzig, Teubner, 1921.

Mathematics dictionary. 2d ed. By Glenn James and R. C. James. Princeton, Van Nostrand, 1959. 546 pp. $15.00.

An enlargement and revision of the edition of 1949 to cover not only elementary mathematics but basic terms from most branches of