

BOOK REVIEWS

Fonctions analytiques. By G. Valiron. Paris, Presses Universitaires de France, 1954. 4+236 pp. 1.500 fr.

This book is intended for the student who has had an introductory course in functions of a complex variable, and the first chapter gives a brief summary of the basic notions of function theory. The second chapter treats the classical theory of univalent functions using the area principle of Gronwall. The author gives the theorem $|a_2| \leq 2$, the one-quarter theorem and its consequences, and the Littlewood bound for the coefficients of a univalent function.

Boundary values of bounded analytic functions are discussed in the third chapter, culminating in Fatou's theorem and the Riesz theorem on the determination of a function by the boundary values on a set of positive measure. In the next chapter the author discusses the behavior of conformal mappings on the boundary and gives criteria that they be conformal there.

Chapter five takes up "functions of Fatou," i.e., functions defined in the unit circle which are bounded by 1 and have absolute value 1 on the unit circumference. In the following chapter we are led to the study of functions which map the upper half-plane into itself and the iteration of such functions. Here the author introduces the notion of a normal family.

Chapter seven discusses the multiplicative functions of Poincaré and notions of their order of growth. Chapter eight deals with the question of prolongation of a function. The final chapter gives the methods and results of Wiman and Valiron on the growth of entire functions.

Altogether this is a very useful little book which has collected together a number of diverse topics in function theory in a form which is easy to read and quite suitable for the student who wishes to familiarize himself with some of the classical tools available in function theory.

H. L. ROYDEN

Uniformisierung. By R. Nevanlinna. Berlin, Göttingen, Heidelberg, Springer, 1953. 391 pp.

There has long been a lack of a reference for students wanting to learn about Riemann surfaces, and Nevanlinna's new book, which might equally have been called *An introduction to Riemann surfaces*, goes far toward filling this need. The first eight chapters of this book,