REVIEWS

Infinite Sequences and Series, by Dr. Konrad Knopp, Professor of Mathematics at the University of Tübingen. Translated by Frederick Bagemihl, of the Institute of Advanced Study. Dover Publications, Inc., New York, 186 pages, $3.50 cloth binding, $1.75 paper binding.

Mathematicians familiar with the writings of Professor Knopp will be very happy to welcome any new work by this author. The wealth of information concerning Infinite Sequences, Series and Products comprised in this small volume is amazing. This result is obtained firstly by a very careful arrangement of material and secondly by a stern reduction of each proof to its simplest and most concise form without, however, any sacrifice of rigour. Consequently most of the contents make easy reading and the book would be an excellent text for a course of instruction in the Theory of Infinite Sequences and Series.

Chapters 1, 2, 3, 4, 6 and 7 contain material which must form part of the curriculum of every undergraduate course in honours mathematics. The contents of these chapters are briefly as follows: 1, preliminary notions on sequences, series and Dedekind cuts; 2, the main tests for sequences; 3, the main tests for infinite series and operations with convergent series; 4, power series, the circle of convergence and operations with power series; 6, applications to logarithmic exponential functions etc.; 7, numerical evaluations and estimations of remainders. Much of the contents of the remaining chapter, chapter 5, should also be included in the undergraduate curriculum, e.g. the tests of Weierstrass, Raabe, Abel and Dirichlet, but the sections dealing with the matrix transformations of series may be somewhat too advanced.

The theorems are all illustrated by numerous examples scattered throughout the text, but, unfortunately, there are no examples for the reader to work through himself, as is customary in the case of most English texts. The book is so excellent, however, that this should not deter any instructor from using it for classwork, not only for the sake of its contents but also for the sake of its style, which may well serve as a useful model for the young mathematician.

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