

series, although the total number of pages devoted to this topic (forty-five) seems to be adequate for an introductory treatise.

In the chapter on multiple series the author follows Jordan in defining convergence in such a manner as to include only absolutely convergent series. The case of conditional convergence, usually designated as convergence in the Pringsheim sense, is relegated to one of the exercises. Both definitions go back to Cauchy, although the latter seems to have been unaware of the fact that they were not co-extensive. The distinction between them was pointed out in an article by Stolz, entitled *Ueber unendliche Doppelreihen*, which appeared in 1884 in volume 24 of the *Mathematische Annalen*. The detailed studies of the case of conditional convergence made later by Pringsheim have caused the latter's name to be associated with this type of convergence. It is true that absolutely convergent multiple series have certain useful properties not possessed by series that are only conditionally convergent. An analogous situation occurs, however, in the case of simple series, and there seems to be no adequate reason for restricting the definition of convergence for multiple series in such a manner as to rule out conditional convergence. Such a restriction is certainly not in harmony with general usage among modern researchers in the field of multiple series.

In view of the prevailing tendency, even in elementary instruction, to stress the importance of acquiring historical background in connection with the study of mathematics, one is surprised at the scant number of references to the literature of the subject that are found in the book. The reviewer thinks that when a student has reached the point where he is ready and willing to study such a topic as infinite series, he should begin to appreciate, if he has not previously done so, that mathematics is a living and growing science. He should be made to realize that any treatise which he studies is in the main an organization of results that have been discovered by various mathematicians of greater or lesser eminence, and he should learn the names of some of them. He should feel that, in addition to the direct knowledge gained, he is acquiring an avenue of approach to a far richer supply of related results, and in some cases at least, putting himself in a position to add to the stores of knowledge in the field in question. The book under review is not designed materially to help the student to any such realization.

Having registered dissent with the author's decision as to the manner in which he chose to present his material, the reviewer hastens to add that he nevertheless regards the book as a useful addition to the available literature on infinite series.

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*Leopold Kronecker's Werke*. Volume 3, Part 2. Edited by K. Hensel. Leipzig, B. G. Teubner, 1931. 216 pp.

This volume completes the edition of Kronecker's mathematical papers; it contains 9 papers, including the very important series of communications on modular systems and the theory of general complex numbers. Then follow applications of this theory, and two papers on the reduction of systems of quadratic forms. Hensel has added a few explanatory footnotes and a short list of misprints.

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