

*La Méthode de Corrélation.* By R. de Montessus de Ballore. Paris, Gauthier-Villars, 1932. 77 pp.

This book presents a compact elementary treatment of the theory of correlation. The development presents very little that is novel. It is suggested that  $r^2$ , where  $r$  is the correlation coefficient, be used as a measure of correlation. The reason given for this change is that there is a tendency to assign too much importance to a small correlation, say to  $r = .3$ . If we used  $r^2 = .09$  for the same data, it is held that less significance would be attached to the correlation. But it seems to the reviewer that both  $r$  and  $r^2$  should be given significance in relation to their probable errors and then surely  $r^2$  is not easier to interpret than  $r$ . Illustrations of the method are given by applications to business statistics and to meteorological data. The reviewer has long felt that certain problems of meteorology should be more generally attacked by recent methods of statistical analysis.

H. L. RIETZ

*Die Arithmetik in strenger Begründung.* By Otto Hölder. 2d edition. Berlin, Springer, 1929. 73 pp.

This little book is a second edition of the author's Leipzig Programmabhandlung, published in 1914. It presents a genetic treatment of the real number-system and its arithmetic which, after the natural numbers have been set up, is clear, concise, and rigorous. The Dedekind cut definition of the irrational is used. There is a section on magnitudes as applied to the measurement of line-segments.

Since there has been considerable discussion of the foundations of arithmetic since 1914, one naturally looks to see what influence this discussion has had on the second edition. The only changes in the text are simplifications of proofs not related to essential problems of the foundations. It seems to this reviewer that a treatment of the number-system which does not consider explicitly the notions of order, mathematical induction, and finiteness cannot lay claim to being a rigorous foundation. Since this book chooses to leave these questions to one side, it hardly justifies the author's slighting reference in the preface to the work of the intuitionists.

D. A. FLANDERS

*Höhere Mathematik.* By Rudolf Rothe. Volume 4: *Übungsaufgaben, Formelsammlung.* Heft 1. Leipzig und Berlin, B. G. Teubner, 1932.

The exercises in this pamphlet parallel the first part of Volume 1 of this series, to which it forms a supplement. They cover topics relating to variables and functions, and the fundamental operations of the differential and integral calculus, including maxima and minima and Taylor's formula. The examples are varied and many of them are suggestive, especially the ones dealing with functions and limits. The pamphlet can be recommended to the teacher of calculus who is looking for problems different from the usual variety, as well as those which can be given as thought provoking to the more intelligent student.

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