measure is equal to 0 if and only if the variables are independent and it attains its maximum 1 if and only if the variables are completely dependent. Although the intensity of correlation is never negative and hence cannot distinguish between positive and negative correlation, the author gives a simple independent method of accomplishing this distinction. The intensity of correlation is closely related to two measures given respectively by Pearson and Tschuprow. Jordan also discusses the conventional correlation coefficient, two additional measures due to Pearson, and Pearson's correlation ratios. The intensity of correlation is the only one of these measures which possesses all of the above mentioned desirable properties.

3. *Sur la loi de Poisson, la loi de Charlier et les équations linéaires aux différences finies du premier ordre à coefficients constants*, by N. Obrechkoff. The first portion of this paper concerns a system of functions consisting of the Poisson function $(a^x/x!)e^{-a}$ and its differences. Any function of the system is the product of the Poisson function with the appropriate Charlier polynomial. The author gives sufficient conditions for the development of a given function in a series formed from this system. The second part of the paper deals with a pair of dependent fortuitous variables such that each has a Poisson distribution when the other is fixed. This condition determines the formulas for the distribution of the two variables and the unrestricted distribution of each of the variables. The last part of the paper concerns a certain type of linear nonhomogeneous difference equation. The author gives a formula for the asymptotic behavior of the solution.

A. H. COPELAND

Tafeln und Aufgaben zur harmonischen Analyse und Periodogrammrechnung. By Karl Stumpff. Berlin, Springer, 1939. 172 pp.

This book is a sequel to the author's volume *Grundlagen und Methoden der Periodenforschung* (Berlin, Springer, 1937). It contains extensive tables for the carrying out of harmonic analysis of empirical curves based upon interpolation by means of trigonometric polynomials of proper degree through equally spaced ordinates. Tables are given for various numbers p of equal divisions. Tables are given for the proper sines and cosines by which to multiply the p ordinates in order to obtain the proper Fourier coefficients. These tables extend as far as $p=40$. They also include the best laborsaving arrangement for the ordinates. These tables are followed by the first thousand multiples of cosines and sines of various angles which occur for $p=8$, 12, 16, and 24, as well as the first hundred multiples of the cosines and sines of all angles of integral degrees in the first quadrant. These tables enable one to avoid a great deal of the multiplication of the ordinates by the proper cosines, which is inherent in the calculation of the coefficients. Further tables include the conversion from polar to rectangular coordinates (useful in passing from the two Fourier coefficients corresponding to a particular frequency to its amplitude and phase), Darwin's scheme for a large number of ordinates ($p=121$), tables of squares, square roots, $(\sin \alpha)/\alpha$, and other tables of interest in harmonic analysis. The last quarter of the book is devoted to problems and examples in harmonic analysis, illustrating the use of the various preceding tables; also to problems in the analysis of hidden periodicities.

The present volume should prove very useful to anyone engaged in frequent harmonic analysis.

H. Poritsky

Tables of Partitions. By Hansraj Gupta. Madras, Indian Mathematical Society, 1939. 5+81 pp.

This work contains two tables. The first table gives the number $P(n)$ of unrestricted partitions of n for $n \leqq 600$. The second table is a table of double entry giving the number (n, m) of partitions of n the least element of which is m for $n \leqq 300$. As is explained in the introduction, the second table was calculated by the recursion formula $(n, m)=(n-m, m)+(n+1, m+1)$ together with certain special properties of the symbol (n, m); a specimen calculation is given. The first table is a result of the second since $P(n)=(n+1, 1)$. Adequate checks have been applied to insure accuracy. The introduction also contains summaries of certain papers by G. N. Watson and D. H. Lehmer on partitions.

The Indian Mathematical Society and the University of the Punjab are to be commended for bearing the cost of publication of this work. The table of unrestricted partitions has previously been published in two parts in the Proceedings of the London Mathematical Society. This table has been used by Chowla to disprove one case of a result conjectured by Ramanujan. This work should be very valuable to anyone interested in the subject of partitions.

T. A. Pierce

Elementary Mathematics from an Advanced Standpoint. Geometry. By Felix Klein. Translated from the third German edition by E. R. Hedrick and C. A. Noble. New York, Macmillan, 1939. 9+214 pp., 141 figs.

Another volume of Klein's masterful lectures is available in Eng-