

half an odd integer. Volume I treated the range  $V = \pm 1/2, \pm 3/2, \dots, \pm 27/2$ . In the present volume we find tables corresponding to  $\nu = \pm 29/2, \pm 31/2, \dots, \pm 61/2$ . The entries are given to 8–10 significant figures for  $x \leq 10$  and to 7 figures for  $x > 10$ . For  $|\nu| \leq 43/2$ ,  $x$  varies from 0 to 10 at intervals of .01 and from 10 to 25 at intervals of .1. For  $|\nu| > 43/2$  the entries correspond to the range  $10 \leq x \leq 25$ . Second and sometimes fourth differences are given. The introduction contains instructions for interpolation.

E. R. LORCH

*Tables of Bessel functions of fractional order.* Vol. I. Prepared by the Computation Laboratory of the National Bureau of Standards. New York, Columbia University Press, 1948. 42+413 pp. \$7.50.

The above tables list  $J_n(x)$  for  $n = \pm 3/4, \pm 2/3, \pm 1/3, \pm 1/4$ ,  $0 < x < 25$ ,  $\Delta x = .01$ , 10 decimals. For values of  $x$  close to zero, the tables are refined by taking  $\Delta x = .001$ . Second differences are tabulated. The differential equations of wave theory provide an example in which these functions arise.

E. R. LORCH

*Tables of the Bessel functions of the first kind of orders four, five, six, seven, eight, and nine.* (Annals of the Computation Laboratory of Harvard University, vols. 5 and 6.) Cambridge, Harvard University Press, 1947. \$10.00.

The staff of the computation laboratory at Harvard University has undertaken to produce tables of the function  $J_n(x)$  for  $n = 0, 1, 2, \dots, 100$ . In volumes III and IV the values  $n = 0, 1$  and  $n = 2, 3$  were treated. The present volumes take us up to  $n = 10$ . And even as you and I sleep, the indefatigable Automatic Sequence Controlled Calculator is pouring forth endless decimals which will shortly complete this series. Future publications in the set will not receive notice on these pages. We invite the interested reader to peruse the last page of the Bulletin which lists new publications. The functions  $J_n(x)$  are listed for  $0 \leq x < 25$  with  $\Delta x = .001$  and for  $25 \leq x < 100$  with  $\Delta x = .01$ . The tables are printed to 10 decimal places.

E. R. LORCH