Table III. $Cl_n(\frac{1}{2}\pi\alpha)$, $n = 2(1)5$, $\alpha = 0(.01)2.0$, 5D

Table IV. $Gl_n(\frac{1}{2}\pi\alpha)$, $n = 2(1)5$, $\alpha = 0(.01)2.0$, 5D

Table V. $Li_2(r, \theta)$ = real part of $Li_2(z)$, $z = re^{i\theta}$. $r = 0(.01)1.0$, $\theta = 0(5°)180°$, 6D.

Throughout Table V the symbol x should be replaced by r. No information is supplied for interpolating in the tables.

The volume is replete with striking and curious results, some of which have been rediscovered a number of times, and the book should prevent future duplication of effort. There is a well-detailed table of contents and index. An extensive bibliography is also given.

Y.L.L.

20[L].—VERA I. PAGUROVA, *Tablitsy integro-eksponentsial'noi funktsii*

$$E_\nu(x) = \int_1^\infty e^{-xu}u^{-\nu}du$$

$\left(\textit{Tables of the Exponential Integral Function } E_\nu(x) = \int_1^\infty e^{-xu}u^{-\nu}\,du\right)$, Akad. Nauk SSSR, Vychislitel'nyy Tsentr, Moscow, 1959, xii + 152 p., 27 cm. Price 9.60 rubles.

This volume from the Computational Center of the Academy of Sciences of the USSR deals with well-known integrals which depend on the exponential integral when ν is a positive integer n. There are three tables. Table I (pages 3–52) is reproduced, with acknowledgment, from the NBS table calculated for a report of 1946 by G. Placzek and Gertrude Blanch (see *MTAC*, v. 2, 1947, p. 272) and more widely disseminated in 1954 in [1]. The table gives $E_n(x)$ to 7 or more decimals for $n = 0(1)20$, $x = 0(.01)2(.1)10$, and also 7-decimal values of the auxiliary functions $E_2(x) - x \ln x$ and $E_3(x) + \frac{1}{2}x^2 \ln x$ for $x = 0(.01).5$ and $x = 0(.01).1$, respectively; these last two ranges need transposing in the sub-title on page 1.

The other two tables are original. It is not stated what machines were used in computing them. Table II (pages 54–62) gives $e^xE_n(x)$, $n = 2(1)10$ to 7 decimals (6 figures) and e^x to 7 figures, all for $x = 10(.1)20$. Table III (pages 64–151) gives $e^xE_\nu(x)$, $\nu = 0(.1)1$ to 6 or 7 figures and e^x to 7 figures, all for $x = .01(.01)7(.05)12(.1)20$. No table gives differences.

A short introduction contains mathematical formulas and recommendations about interpolation. For integral n, the formula $d^rE_n(x)/dx^r = (-1)^rE_{n-r}(x)$ enables the tabulated function values themselves to be used for interpolation by means of Taylor's series. A table is given showing the accuracy attainable in interpolating various functions linearly or with 3 or 4 Taylor terms or with 3, 4, or 5 Lagrange terms.

A. F.

1. NAT. BUR. STANDARDS, Appl. Math. Ser. No. 37, *Tables of Functions and of Zeroes of Functions*, U. S. Government Printing Office, Washington, D. C., 1954, p. 57-111. See RMT 104, *MTAC*, v. 10, 1956, p. 249.