when the number, N, of abscissas is equal to 200(200)1000 and 2000. The abscissas x_{kN} (the zeros of the Hermite polynomial $H_N(x)$), the corresponding weights, and the products of the weights multiplied by exp (x_{kN}^2) are all tabulated in floating-point form to 27S, except for $N = 2000$, where the precision is limited to 26S. (Because of symmetry, only the positive zeros and corresponding weights are given.)

The zeros and weights were checked to the precision of the printed entries by the respective relations

$$\prod_{k=1}^{N/2} x_{kN}^2 = N!/[2^N(N/2)!] \quad \text{and} \quad 2\sum_{k=1}^{N/2} a_{kN} = \sqrt{\pi}\,.$$

Further details of the calculations are presented in the introduction to these tables, which constitute a unique supplement to the valuable tables of Stroud & Secrest [3].

J. W. W.

1. Bruce S. Berger & Robert Danson, *Tables of Zeros and Weights for Gauss-Laguerre Quadrature*, ms. deposited in UMT file. (See *Math. Comp.*, v. 22, 1968, pp. 458–459, RMT **40.**)

2. Bruce S. Berger, Robert Danson & Robert Carpenter, *Tables of Zeros and Weights for Gauss-Laguerre Quadrature to* 24S *for* $N = 400$, 500, *and* 600, and *Tables of Zeros and Weights for Gauss-Laguerre Quadrature to* 23S *for* $N = 700$, 800, *and* 900, mss. deposited in the UMT file. (See *Math. Comp.*, v. 23, 1969, p. 882, RMT **60.**)

3. A. H. Stroud & Don Secrest, *Gaussian Quadrature Formulas*, Prentice-Hall, Englewood Cliffs, N. J., 1966. (See *Math. Comp.*, v. 21, 1967, pp. 125–126, RMT **14.**)

3[2.20, 13.00].—R. J. Herbold & P. N. Ross, *The Roots of Certain Transcendental Equations*, Professional Services Department, The Procter and Gamble Co., Winton Hill Technical Center, Cincinnati, Ohio, ms. of 32 typewritten pp. deposited in the UMT file.

Herein are tabulated 15S values (in floating-point form) of the first 50 positive roots of the equations $x \tan x - k = 0$ and $x \cot x + k = 0$, for $k = 0(0.001)0.002(0.002)0.01$, $0.02(0.02)0.1(0.1)1(0.5)2(1)10(5)20(10)60(20)100$. These decimal approximations to the roots were calculated on an IBM 360/65 system, using Newton-Raphson iteration programmed in double-precision Fortran.

As the authors note in their introduction, these tables can be considered to be an extension of the tables of Carslaw & Jaeger [1] for the same range of the parameter k.

A specific example of the numerical solution of a problem in the field of chemical engineering is adduced to show the practical need for these more elaborate tables.

J. W. W.

1. H. S. Carslaw & J. C. Jaeger, *Conduction of Heat in Solids*, 2nd ed., Oxford University Press, Oxford, 1959.

4[2.35, 6].—Louis B. Rall, *Computational Solution of Nonlinear Operator Equations*, John Wiley & Sons, Inc., New York, 1969, viii + 224 pp., 24 cm. Price $14.95.

The topic of this book has received an increasing amount of research in the last several years, and many books devoted at least in part to this subject have already appeared (for example, the books by Collatz, Goldstein, Kantorovich and Akilov, Keller, Kowalik and Osborne, and Ostrowski). In comparison with these existing