This is a very useful book, which also sets a new style for books in numerical analysis. Similar books are needed for many other problem areas.

ÅKE BJÖRK

Department of Mathematics
Linköping University
S–581 83 Linköping, Sweden

27 [2.05.03].—HERBERT E. SALZER, NORMAN LEVINE & SAUL SERBEN, *Hundred-Point Lagrange Interpolation Coefficients for Chebyshev Nodes*, 47 computer printout sheets, 1969, deposited in the UMT file.

Tables of Lagrange interpolation coefficients $L_i^{(100)}(x)$, where

$$L_i^{(100)}(x) = \prod_{j=1, j\neq i}^{100} (x - x_j) \Big/ \prod_{j=1, j\neq i}^{100} (x_i - x_j),$$

are given for the Chebyshev nodes

$$x_i = -\cos[(2i - 1)\pi/200], \quad i = 1(1)100,$$

for $x = 0(0.01)1.00$, to 26S. For negative arguments, we have

$$L_i^{(100)}(-x) = L_{101-i}^{(100)}(x).$$

$L_i^{(100)}(x)$ is tabulated so that there is a separate block of four columns for each $i$, and is read horizontally. The argument $x$ is not printed, and the 2nd through 26th digits are unseparated.

Three functional checks,

$$\sum_{i=1}^{100} L_i^{(100)}(x) = 1, \quad \sum_{i=1}^{100} x_i L_i^{(100)}(x) = x \quad \text{and} \quad \sum_{i=1}^{100} x_i^2 L_i^{(100)}(x) = x^2,$$

for $x = 0(0.01)1.00$, were performed upon the entries on tape before final printout, the greatest relative deviation from a true answer being $< \frac{1}{4} \cdot 10^{-21}$. The user is cautioned that these checks upon the 26S entries, prior to printout, cannot guarantee the correctness of digits on tape which occur beyond the twenty-first decimal place, or the accuracy of the printout in any place. However, it appears likely that all entries are correct to around 23S.

It was not noticed until 1975 that the printout was defective in that minus signs were not printed in all the first columns, making uncertain twenty-five percent of the entries. As the means and opportunity for reproducing a corrected version of the printout were no longer available, a careful determination was made of the locations of the missing minus signs, which were then inserted by hand.

AUTHOR'S SUMMARY (H. E. S.)

941 Washington Avenue
Brooklyn, New York 11225

28 [2.10].—PHILIP J. DAVIS & PHILIP RABINOWITZ, *Methods of Numerical Integration*, Academic Press, New York, 1975, xii + 459 pp., 24 cm. Price $34.50.

This book is an expanded and updated successor to the previous works on this subject by the same authors, *Numerical Integration*, Blaisdell Publishing Co., Waltham, Mass., 1967 (see *Math. Comp*, v. 22, 1968, pp. 459–460; *Math. Reviews*, v. 35, 1968, #2482). The new version is almost exactly twice the size of the old, yet retains the sparkle of the original version. The overall organization is the same, with about sixty-four new sections and subsections added, some of the latter being interpolated two