approximation theory which furnishes valuable insight into 'who considers what worthwhile and interesting'.

J. R. R.

20 [2.05.2].—R. P. FEINERMAN & D. J. NEWMAN, *Polynomial Approximation*, The Williams & Wilkins Co., Baltimore, Md., 1974, viii + 148 pp., 24 cm. Price \$13.00.

A descriptive title for this book is "Degree of convergence for polynomial and rational approximation on the real line". This is a thorough and compact presentation of most of the known theory on this topic, the primary exclusions being those results that involve complex functions, analyticity, etc. There is a short (ten pages) chapter on the existence, uniqueness and characterization of best Tchebycheff approximations; and, otherwise, there is very little that does not relate directly to degree of convergence questions. Thus the scope of the book is rather narrow and it is not suitable as a general reference or text on approximation theory (even polynomial approximation).

As a special topics book, it is well done. The authors have organized the material well and concisely. There is a natural progression from traditional results to current research (to which one of the authors is a principal contributor) which the specialist in approximations theory will find readable and interesting. There are only thirty-eight items in the bibliography. The book is done economically as far as design, copy-editing and production are concerned; and only one misprint was noted (reference [25]).

J. R. R.

21 [2.05, 7].— HERBERT E. SALZER, *Laplace Transforms of Osculatory Interpolation Coefficients*, ozalid copy of handwritten ms. of six sheets, 11" × 16", deposited in the UMT file.

The Laplace transforms of the n-point $(2n - 1)$th-degree osculatory interpolation coefficients based on the integral points $i = 0(1)n - 1$, namely,

$$A_i^{(n)}(p) = \int_0^\infty e^{-pt}\{[L_i^{(n)}(t)]^2\,[1 - 2L_i^{(n)\prime}(i)(t - i)]\}\,dt,$$

$$B_i^{(n)}(p) = \int_0^\infty e^{-pt}\{[L_i^{(n)}(t)]^2\,(t - i)\}\,dt,$$

where

$$L_i^{(n)}(t) = \prod_{j=0,j\neq i}^{n-1} (t - j) \Big/ \prod_{j=0,j\neq i}^{n-1} (i - j),$$

are expressed exactly as functions of p, for $n = 2(1)9$. Both $A_i^{(n)}(p)$ and $B_i^{(n)}(p)$ underwent three functional checks that were made on the exact fractional coefficients of p^{-r}, $r = 1(1)2n$, on the final manuscript. All computations were performed with a desk calculator before 1962, except for the recent completion of the final checks by hand.

Given $f(i)$ and $f'(i)$, $i = 0(1)n - 1$, we have the approximation

$$\int_0^\infty e^{-pt} f(t)\,dt \approx \sum_{i=0}^{n-1} [A_i^{(n)}(p) f(i) + B_i^{(n)}(p) f'(i)]\,.$$

AUTHOR'S SUMMARY

22 [2.25, 4, 7].—F. W. OLVER, *Asymptotics and Special Functions*, Academic Press, Inc., New York, 1974, xvi + 572 pp., 24 cm. Price \$39.50.

This is a very satisfactory book, which combines sound mathematical analysis with