These impressive tables evolved as a by-product of a search for integer squares of the form $n! + 1$ when n exceeds 7. This search, which has proved futile up to the limit $n = 1140$, extends earlier results of Kraitchik [6], as noted in the introduction to the first volume under review.

These attractive, clearly printed tables exemplify the excellent output obtainable from electronic digital computers in conjunction with meticulous planning and editing.

J. W. W.

1. H. S. UHLER, *Exact Values of the First 200 Factorials*, New Haven, 1944. (See *MTAC*, v. 1, 1943–1945, p. 312, RMT **158**; p. 452, UMT **36**.)
2. H. S. UHLER, "Twenty exact factorials between 304! and 401!", *Proc. Nat. Acad. Sci. U. S. A.*, v. 34, 1948, pp. 407–412. (See *MTAC*, v. 3, 1948–1949, p. 355, RMT **579**.)
3. H. S. UHLER, "Nine exact factorials between 449! and 751!," *Scripta Math.*, v. 21, 1955, pp. 138–145.
4. H. S. UHLER, "Exact values of 996! and 1000!, with skeleton tables of antecedent constants," *Scripta Math.*, v. 21, 1955, pp. 261–268. (See *MTAC*, v. 11, 1957, p. 22, RMT **1**.)
5. A. FLETCHER, J. C. P. MILLER, L. ROSENHEAD & L. J. COMRIE, *An Index of Mathematical Tables*, Vol. I, 2nd ed., Addison-Wesley Publishing Co., Reading, Mass., 1962, p. 47.
6. M. KRAITCHIK, "On the divisibility of factorials," *Scripta Math.*, v. 14, 1948, pp. 24–26. (See *MTAC*, v. 3, 1948-1949, pp. 357-358, RMT **587**.)

69[7].—ALDEN McLELLAN IV, *Tables of the Riemann Zeta Function and Related Functions*, Desert Research Institute, University of Nevada, Reno, Nevada, ms. in 5 volumes, the first of 88 pp. the others of 83 pp. each, 28 cm., deposited in the UMT file.

In addition to the Riemann zeta function, $\zeta(x)$, here attractively tabulated to 41S (with respect to $\zeta(x) - 1$) for $x = 0(0.005)1(0.01)10(0.02)58$, we find in the four accompanying tables decimal values of functions designated by the author as $\alpha(x)$, $\lambda(x)$, $\eta(x)$, and $\xi(x)$. The range here is $x = 1(0.01)10(0.02)58$ and the precision is 41S, except for $\lambda(x)$, where from 31 to 40S of $\lambda(x) - 1$ are tabulated. (All the tabular entries have been left unrounded.) These four functions can be expressed in terms of $\zeta(x)$ by the relations:

$$\alpha(x) = 2^{-x}\zeta(x)\,, \qquad \lambda(x) = (1 - 2^{-x})\zeta(x)\,,$$
$$\eta(x) = (1 - 2^{-x+1})\zeta(x)\,, \qquad \xi(x) = 2^{-x}(1 - 2^{-x+1})\zeta(x)\,.$$

Each of these functions has been previously tabulated; however, the earlier tables, except for those of $\zeta(x)$, have been restricted to integer values of the argument. Moreover, the notation employed in earlier tables, including those by Glaisher [1], Davis [2], and Liénard [3], differs from that adopted herein by Dr. McLellan. The two sets of notation are related as follows:

$$S_n = \zeta(n)\,, \quad U_n = \lambda(n)\,, \quad s_n = \eta(n)\,, \quad 2^{-n}S_n = \alpha(n)\,, \quad 2^{-n}s_n = \xi(n)\,.$$

The present tables are not accompanied by any explanatory text; however, the introduction to a preliminary abridged table [4] by the same author reveals that the calculations were based upon Euler's transformation as applied to the alternating series derived from the standard series for $\zeta(x)$ by means of van Wijngaarden's transformation [5]. Furthermore, this reviewer has ascertained that the calculations were performed on an IBM 1620 II computer, using a program written in machine language.

It might be noted that the most elaborate previous tabulation of $\zeta(x)$ for decimal arguments appears to have been made by Shafer [6], but his 30D manuscript table for $x = 1.01(0.01)50$ is relatively inaccessible. For integer arguments the 50D tables of Liénard cover a wider range than those under review, but the precision is less for arguments exceeding 33.

Thus, the present manuscript tables, attractively arranged and clearly printed, represent a significant contribution to the tabular literature relating to the Riemann zeta function and associated functions.

J. W. W.

1. J. W. L. GLAISHER, "Tables of $1 \pm 2^{-n} + 3^{-n} \pm 4^{-n} +$ etc. and $1 + 3^{-n} + 5^{-n} + 7^{-n} +$ etc. to 32 places of decimals," *Quart. J. Math.*, v. 45, 1914, pp. 141–158.

2. H. T. DAVIS, *Tables of the Mathematical Functions*, Vol. II, Principia Press of Trinity University, San Antonio, Texas, 1963.

3. R. LIÉNARD, *Tables Fondamentales à 50 Décimales des Sommes S_n, U_n, Σ_n*, Centre de Documentation Universitaire, Paris, 1948.

4. ALDEN MCLELLAN IV, *Summing the Riemann Zeta Function*, Preprint No. 35, Desert Research Institute, University of Nevada, Reno, May 1966.

5. *Modern Computing Methods*, 2nd ed., Her Majesty's Stationery Office, London, 1961, p. 126.

6. A. FLETCHER, J. C. P. MILLER, L. ROSENHEAD & L. J. COMRIE, *An Index of Mathematical Tables*, Vol. I, 2nd ed., Addison-Wesley Publishing Co., Reading, Mass., 1962, p. 517.

70[7].—D. S. MITRINOVIĆ & R. S. MITRINOVIĆ, *Table des Nombres de Stirling de Seconde Espèce*, Publications de la Faculté d'Électrotechnique de l'Université à Belgrade (Série: Math. et Phys.), No. 181, 1967, 16 pp., 25 cm.

This attractive publication presents a table of the exact values of the Stirling numbers of the second kind, designated by σ_n^r, for $r \leqq n = 51(1)60$.

The underlying calculations, performed on a desk calculator, were based on the recurrence relation $\sigma_{n+1}^r = r\sigma_n^r + \sigma_n^{r-1}$. Checking of the tabular entries corresponding to five selected values of n was performed at the Istituto Nazionale per le Applicazioni del Calcolo in Rome, using the relation $\sum_{r=1}^{n} (r+1)\sigma_n^r = \sum_{r=1}^{n+1} \sigma_{n+1}^r$.

In an addendum to the introduction the authors mention that this table was in the process of publication when they learned of the more extensive table by Andrew [1], with which they have found complete agreement.

The valuable list of references appended to the explanatory text includes the fundamental table of Gupta [2], which, as the authors explicitly note, has been inadvertently omitted as a reference in several earlier publications on these numbers.

J. W. W.

1. A. M. ANDREW, *Table of the Stirling Numbers of the Second Kind*, Tech. Rep. No. 6, Electrical Engineering Research Laboratory, Engineering Experiment Station, University of Illinois, Urbana, Illinois, December 1965. (See *Math. Comp.*, v. 21, 1967, pp. 117–118, RMT **3**.)

2. H. GUPTA, "Tables of distributions," *Res. Bull. East Panjab Univ.*, No. 2, 1950, pp. 13–44. (See *MTAC*, v. 5, 1951, p. 71, RMT **859**.)

71[7].—D. S. MITRINOVIĆ & R. S. MITRINOVIĆ, *Tableaux d'une classe de nombres reliés aux nombres de Stirling*, VII and VIII, Publ. Fac. Elect. Univ. Belgrade (Série: Math. et Phys.), Nos. 172 and 173, 1966, 53 pp., 24 cm.

The first part of the set of tables having the above title appeared in 1962; the seventh and eighth parts (forming a single fascicle) are stated to conclude this set. Reviews of all the earlier parts may be found in *Math. Comp.* (v. 17, 1963, p. 311,