p. 58, last formula but one; for  $e^{-\alpha p}$  read  $e^{-\alpha p}$ 

p. 59, formula 1; for (1 + h/p) read  $(1 + (hp)^{-1})$ 

p. 59, third last formula; for  $2A_1$  read  $A_1$ 

I am indebted to A. ERDÉLVI for many of these corrections, some of which were communicated to him by O. VOELKER.

N. W. MCLACHLAN

Vizand & Co. 51 Lincoln's Inn Fields London W.C.2., England

**219.**—NBSMTP., Tables of Fractional Powers. New York, 1946. Table 3, p. 34, for  $\pi^{-10} = 1.0678289226\cdots$ read  $\pi^{-10} = 1.0678279226\cdots$ .

MURLAN S. CORRINGTON

RCA Victor Camden 2, N. J.

220.—B. VAN DER POL, "On the non-linear partial differential equation satisfied by the logarithm of the Jacobi theta-functions, with arithmetical applications, I," Nederl. Akad. Wetensch., Proc., s.A., v. 54 [Indagationes Math., v. 13], 1951, p. 261-284.

p. 281 for  $\beta_{28} = 336\ 87218\ 32202\ 92775\ 96104\ 01280$ read  $\beta_{28} = 436\ 56892\ 24858\ 87663\ 46104\ 01280$ 

B. VAN DER POL

12 Chemin Kreig Geneva, Switzerland

## **UNPUBLISHED MATHEMATICAL TABLES**

151[F].—A. GLODEN, Factorisation of  $N^4 + 1$  for isolated values of N between 30000 and 40000, II. Two manuscript pages. Deposited in the UMT FILE.

This constitutes an extension of UMT 144 [MTAC, v. 6, 1952, p. 102] and gives 50 new factorisations.

A. GLODEN

11 rue Jean Jaurès Luxembourg

152[F].—A. GLODEN, Table of the Least Solution of the Congruence  $2x^2 + 1 \equiv 0 \pmod{p^2}$  and Factorisation of the Corresponding Numbers  $2x^2 + 1$ . Three manuscript pages. Deposited in the UMT FILE.

The prime p is taken less than 1000. The largest number  $2x^2 + 1$  factored is

$$2(380552)^2 + 1 = 3 \cdot 11 \cdot 883^2 \cdot 11257.$$

A. GLODEN

11 rue Jean Jaurès Luxembourg 153[F].—A. GLODEN, Factorisation Table for the Numbers  $N^8 + 1$ , N = 500. Six typewritten pages. Deposited in the UMT FILE.

The table is an extension of CUNNINGHAM'S<sup>1</sup> table to  $N \leq 200$ . Of its 500 numbers 147 are completely factored. All unknown factors exceed 600000.

A. Gloden

<sup>1</sup>A. J. C. CUNNINGHAM, Binomial Factorisations. V. 6, London 1923, p. 140-141.

154[F].—F. GRUENBERGER, Lists of Primes. Two sheets tabulated from punched cards. Deposited in the UMT FILE.

The list of primes is extended from 50039981 to 50060033. There are 1131 primes between these limits. This is a continuation of a list given in UMT 148  $\lceil MTAC$ , v. 6, p. 167].

F. GRUENBERGER

Univ. of Wisconsin Madison, Wis.

155[F].—R. J. PORTER, Tables of Irregular Negative Determinants of exponent 3n. Typewritten manuscript on deposit in the UMT FILE.

The table gives the values of D < 50000 for which there is a determinant -D which is irregular with an exponent of irregularity which is divisible by 3. [See DICKSON'S *History*<sup>1</sup> for definition of these terms.]

The table is arranged by thousands. There are 11, 17, 21,  $\cdots$ , 43 D's in the first, second,  $\cdots$ , 50th thousand, a total of 1718 D's altogether. Most of these have exponent 3. Only D = -17561 has an exponent 6. Thirteen however have exponent 9. These are -D = 3299, 6075, 11907, 17739, 23571, 24300, 27675, 29403, 33075, 35235, 41067, 46899, and 47628. All other D's have exponent 3.

The list was constructed by making extracts from some hundreds of the writer's series of determinants of class-number 3k. To each determinant in these series belongs a class which has the property of duplicating into its own opposite; e.g., the determinant 21481 has a class (149, 71, 178) which duplicates into (26522, 8117, 2485) and thence by reduction to (2485, - 662, 185), (185, - 78, 149) and (149, - 71, 178).

These extracts are filed in numerical order with their corresponding A values (e.g., 149 in the above) and any determinants which have more than one entry of A values against them are irregular (exp. 3n).

It is found, in practice, that to make extracts from the series for each block of 10,000 determinants takes approximately 40 hours' work.

R. J. Porter

266 Pickering Road Hull, England

<sup>1</sup>L. E. DICKSON, History of the Theory of Numbers, v. 3, Washington 1927, New York, 1934, Chap. 5.

## AUTOMATIC COMPUTING MACHINERY

Edited by the Staff of the Machine Development Laboratory of the National Bureau of Standards. Correspondence regarding the Section should be directed to Dr. E. W. CANNON, 415 South Building, National Bureau of Standards, Washington 25, D. C.