UNPUBLISHED MATHEMATICAL TABLES

156[A].—M. K. PAGE & M. K. PFEIL, *Further Computation of the Digits of e.* One page tabulated from punched cards. Deposited in the UMT FILE.

This gives the value of e to 3333D as obtained on the IBM 604 calculating punch. This work supplements that of F. GRUENBERGER and O. MARLOWE as reported in *MTAC*, v. 6, p. 123–124. The remainders of the various terms at 3333D and 3347D will be furnished upon request.

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157[A].—J. W. WRENCH, JR., Log π *and Related Values.* One typewritten page deposited in the UMT FILE.

The values of $\ln \pi$, $\log \pi$, $\frac{1}{2} \ln 2\pi$, $\frac{1}{2} \log 2\pi$, and $\log 2$ are given to 329D. The first of these was computed from

$$\ln \pi = \ln (2^{10} \cdot 3 \cdot 7^6 \cdot 17^5) - 4 \log (5^2 \cdot 11 \cdot 13) + \log (1 - \epsilon)$$

where ϵ is approximately $2.51869 \cdot 10^{-9}$. These values confirm the 214D values published by UHLER.[1]

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[1] H. S. UHLER, "Log π and other basic constants," Nat. Acad. Sci., Washington, *Proc.*, v. 24, 1938, p. 23–30.

158[F].—A. GLODEN, *Solutions of* $x^4 + 1 \equiv 0 \pmod{p}$ *for* $600000 < p < 800000$. Typewritten manuscript, 22 p. Deposited in the UMT FILE.

This is a continuation of two previous tables for $p < 600000$ [*MTAC*, v. 3, p. 96]. The present table gives two solutions for every possible prime p between 600000 and 800000.

With the help of these tables various results on the factors of $x^4 + 1$ were obtained, such as

$$820^4 + 1 = 626929 \cdot 721169.$$

These are appended.

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AUTOMATIC COMPUTING MACHINERY

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TECHNICAL DEVELOPMENTS

THE ELECTRONIC COMPUTER AT THE INSTITUTE FOR ADVANCED STUDY

An all-electronic, general purpose, digital computer has been in operation at the Institute for Advanced Study in Princeton, New Jersey, since June 1952.