

## UNPUBLISHED MATHEMATICAL TABLES

In this issue there is a reference to an unpublished table in RMT 1015

147[A, P].—LEO STORCH, *Admittance-Impedance Conversion Tables*, Technical Memorandum No. 274, Hughes Aircraft Co., Research and Development Laboratories, Culver City, California. 10 p. manuscript tabulated from punched cards. Copy deposited in UMT FILE.

The table gives 4S values of  $(1 + s^2)^{-1}$  and  $s(1 + s^2)^{-1}$  for  $s = 0(.001)1$ . It is intended to facilitate the calculation of the reciprocal of a complex number. The table is an extension of a table of JAHNKE & EMDE. [4th ed., appendix, p. 13.]

148[F].—F. GRUENBERGER, *Lists of primes*. Six sheets tabulated from punched cards. Deposited in the UMT FILE.

These lists of primes are for the ranges 10100009 to 10132211 and 50000017 to 50040013. The lists were computed on a CPC as a fill-in project, without attempting to program for speed. A graph showing the distribution of differences between consecutive primes in the ranges 1000003–1024523, 10100009–10132211 and 50000017–50012839 is included.

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149[F].—A. GLODEN, *Table of solutions of the congruence  $x^{128} + 1 \equiv 0 \pmod{p}$  for  $p < 20000$* . Manuscript, 2 p., deposited in the UMT FILE.

The table gives for each of the 16 primes  $p$  of the form  $256k + 1$  less than 20000, the 64 solutions of the congruence mentioned in the title which are less than  $\frac{1}{2}p$ .

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## AUTOMATIC COMPUTING MACHINERY

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## TECHNICAL DEVELOPMENTS

## AN AUTOMATIC COMPUTER IN AUSTRALIA

An automatic computer, the "C.S.I.R.O. Mk. I Digital Computer," designed and constructed by the Radiophysics Division of the Commonwealth Scientific and Industrial Research Organization in Sydney, Australia, is now in service. It is of the all-electronic, serial-binary type with a main store consisting of a group of ultrasonic delay lines with a total capacity of 1,024 words of 20 binary digits each. An auxiliary store in the form of an unsynchronized magnetic drum is incorporated with a capacity of 1,024 similar words, later to be extended to 4,096 words.

No attempt has been made to obtain very high speeds of operation, the