

touch with scientific activities, although he has almost entirely lost his eyesight. He received honorary degrees of Doctor of Engineering from the Technische Hochschule, Breslau, in 1913, and from the Eidgenössische Technische Hochschule, Zurich, in 1929. We are happy to present a portrait of Professor Emde taken about the time (1938) of publication of the third edition of his *Tables of Higher Functions*. Last month a new edition of his *Tafeln elementarer Funktionen* (see MTAC, v. 1, p. 384–385) was published in Germany.

98. MERSENNE NUMBERS.—In Nat. Acad. Sci., *Proc.*, v. 34, Mar. 1948, p. 102–103, Professor H. S. UHLER gives details of his proof (completed 27 Nov. 1947) that M_{193} is composite. Thus he brought to a conclusion work begun in 1944 (*MTAC*, v. 1, p. 333) when the characters of just six of the M_p , $p = 157, 167, 193, 199, 227, 229$, were unknown. He has now shown that all of these are composite. See also *MTAC*, v. 1, p. 404; v. 2, p. 94, 341. Professor Uhler's final summary of some of the facts concerning the 55 Mersenne numbers is as follows:

p	Character of M_p
2, 3, 5, 7, 13, 17, 19, 31, 61, 89, 107, 127	Prime
11, 23, 29, 37, 41, 43, 47, 53, 59, 67, 71, 73, 79, 113	Composite and fully factored
151, 163, 173, 179, 181, 223, 233, 239, 251	Two or more prime factors found
83, 97, 131, 167, 191, 197, 211, 229	Only one prime factor known
101, 103, 109, 137, 139, 149, 157, 193, 199, 227, 241, 257	Composite but no factor known

R. C. A.

QUERIES

29. PITISCUS TABLES.—Where may one consult other copies of English or French PITISCUS tables, of the 1613 Pitiscus tables, and of the 1607 RHETICUS-PITISCUS table, than those listed in N96?

R. C. A.

QUERIES—REPLIES

38. LOG LOG TABLES (Q4, v. 1, p. 131; QR9, p. 336, 12, p. 373; 30, v. 2, p. 374).—The following tiny publication of a “professeur à la Faculté des Sciences de Paris” and an “ingénieur civil des mines” contains a 4D table of $\log \log N$, for $N = 1.003(.001)1.2(.01)2(.1)10(1)100(10)1000(100)-10000(1000)39000 \dots$: JEAN VILLEY & JEAN DIENESCH, *Table des Logarithmes de Logarithmes. Jointe à une table de logarithmes ordinaire, permet d'effectuer très rapidement les calculs thermodynamiques p^h ; les calculs d'intérêts composés $(1.03)^n$; et tous calculs d'exponentielles n^h* . Paris, Gauthier-Villars, 1942. 8-page folded card. 8×13.7 cm. 7.50 francs.

CORRIGENDA

V. 1, p. 64, for lines—(11–13), read $(a' - b')$ Its semiquadrantal arrangement with sines and cosines on the same page; p. 160, l. –8, for 8.772, read 8.771; p. 298, l. –4, for 151, read 156; p. 386, l. 33, for 229(6), read 229(8), and for 239(10), read 239(17).

V. 2, p. 36, in equations (1) and (2), for $e^{2\pi ir}$, read $e^{-2\pi ir}$; p. 380, l. 27, for 296,357, read 296, 309–312, 357; p. 381, l. 12, for 56, 65, read 56, 65, 87.

V. 3, p. 186, l. 7, for 537, read 535; p. 225, l. 9, for a new one substituted., read a new one substituted, and an important new anonymous 16-page Appendix, apparently written by WILLIAM OUGHTRED.