Consider

$$z = \mathrm{sn}(\omega, k), \qquad z = a + ib, \qquad \omega = u + iv,$$
$$u + iv = \sin^{-1}(a + ib) = F(\psi, k),$$
$$a + ib = \sin\psi = \sin(\theta + i\varphi),$$

where $F(\psi, k)$ is the incomplete elliptic integral of the first kind, and k is the usual notation for the modulus. Let C, D, E, and F stand for certain ranges on the parameters. Thus:

$$C\colon 0(0.1)1; \qquad D\colon 0.9(0.01)1;$$
$$E\colon 0.01(0.01)0.1; \qquad F\colon 0.1(0.1)1.$$

Let K and K' be the complete elliptic integrals of the first kind of modulus k and $k' = (1 - k^2)^{1/2}$, respectively. Then the tables give 5D values of $u/k + iv/k'$ for

$$k = \sin\theta, \qquad \theta = 5°(5°)85°(1°)89°,$$

and the ranges

$$a = C, b = C; \quad a = D, b = C; \quad a = C, b^{-1} = E; \quad a = C, b^{-1} = F;$$
$$a^{-1} = E, b = C; \quad a^{-1} = F, b = C; \quad a^{-1} = E, b^{-1} = E;$$
$$a^{-1} = F, b^{-1} = F.$$

The headings for each page were machine printed and here no confusion should arise provided one understands that $K = \sin 5$, for example, should read $k = \sin 5°$.

The method of computation and other pertinent formulas are given in the introduction.

Y. L. L.

1. H. E. Fettis & J. C. Caslin, *Elliptic Functions for Complex Arguments,* Report ARL 67-0001, Aerospace Research Laboratories, Office of Aerospace Research, United States Air Force, Wright-Patterson Air Force Base, Ohio, January, 1967. (See *Math. Comp.*, v. 22, 1968, pp. 230–231.)

2. F. M. Henderson, *Elliptic Functions with Complex Arguments,* Univ. of Michigan Press, Ann Arbor, Mich., 1960. (See *Math. Comp.*, v. 15, 1961, pp. 95, 96.)

51 [9].—Bryant Tuckerman, *Odd Perfect Numbers: A Search Procedure, and a New Lower Bound of* 10^{36}, IBM Research Paper RC-1925, October 20, 1967, original report (marked "scarce") and one Xerox copy deposited in the UMT file, 59 pages.

This is the original (1967) much more detailed version of Tuckerman's paper printed elsewhere in this issue. It established the lower bound of 10^{36}. See the following review for a description of the UMT supplement to his present paper.

D. S.

52 [9].—Bryant Tuckerman, *Odd-Perfect-Number Tree to* 10^{36}, IBM, Thomas J. Watson Research Center, Yorktown Heights, New York, 1972, ms. of 9 computer sheets, deposited in the UMT file.