

4. Y. L. LUKE, *The Special Functions and Their Approximations*, Vols. I, II, Academic Press, New York, 1969.

5. L. J. SLATER, *Generalized Hypergeometric Functions*, Cambridge Univ. Press, London and New York, 1966.

7[7.10].—HANS A. LARSEN, *Natural Tangents and Trigonometrical Quadratic Surds to 50 Decimal Places*, Ms. of 6 pp., $8 \times 11\frac{1}{2}$ in., deposited in the UMT file.

As a sequel to his earlier calculation of natural sines to 50D [1] the author has calculated $\tan x$ for $x = 1^\circ(1^\circ)89^\circ$ in at least two ways to more than 60D, and the results, rounded to 50D, are tabulated in the present manuscript. Also included are closed expressions of the tangents of the integral multiples of 3° in the stated range. The eleven basic irrational numbers whose rational multiples appear in these expressions are also tabulated to 50D.

This calculation, like its predecessor, was motivated by a desire to check and extend the corresponding table of Herrmann [2].

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1. *Math. Comp.*, v. 18, 1964, p. 327, UMT 41.

2. A. HERRMANN, "Bestimmung der trigonometrischen Functionen aus den Winkeln und der Winkel aus den Functionen, bis zu einer beliebigen Grenze der Genauigkeit," *Wiener Sitzungsberichte*, v. 1, 1848, pp. 465–481.