with the associated indicial equation

$$f(x) = x^4 - .398x^3 + .220x^2 - .013x - .027 = 0. \tag{13}$$

Its roots have been computed and are known to be less than unity in absolute value. This may be verified by computing

$$\begin{aligned} \pi_0 &= 0.782 > 0 \\ \pi_1 &= 3.338 > 0 \\ \pi_2 &= 5.398 > 0 \\ \pi_3 &= 4.878 > 0 \\ \pi_4 &= 1.604 > 0 \\ T_2 &= 14.204 > 0 \\ T_3 &= 43.177 > 0 \end{aligned} \tag{14}$$

To compute the same results by cross-multiplication the work is arranged as follows:

$$\begin{array}{ccc} \pi_0 & \pi_2 & \pi_4 \\ .782 & 5.398 & 1.604 \\ \pi_1 & \pi_3 & \\ 3.338 & 4.878 & \\ \pi_1\pi_2 - \pi_0\pi_3 & \pi_3\pi_4 - 0 & \\ 14.204 & 7.824 & \\ \pi_3(\pi_1\pi_2 - \pi_0\pi_3) - \pi_1\pi_3\pi_4 & & \\ 43.177 & & \end{array} \tag{15}$$

It may be remarked that the presence of a negative coefficient anywhere in the table is an immediate indication of instability, and that there is no necessity to continue the computation until a negative sign appears in a leading coefficient. This fact often saves much labor.

VALUES OF MILLS' RATIO OF AREA TO BOUNDING ORDINATE AND OF THE NORMAL PROBABILITY INTEGRAL FOR LARGE VALUES OF THE ARGUMENT

By Robert D. Gordon

Scripps Institution of Oceanography

A pair of simple inequalities is proved which constitute upper and lower bounds for the ratio R_x[1], valid for $x > 0$. The writer has failed to encounter these inequalities in the literature, hence it seems worthwhile to present them for whatever value they may have.

[1] J. P. Mills, "Table of ratio: area to bounding ordinate, for any portion of the normal curve." *Biometrika Vol. 18* (1926) pp. 395–400. Also Pearson's tables, Part II, Table III.