

TAYLOG
(FRACTIONS AND LOGARITHMS, 1972)

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$$\begin{aligned}2 &= \left(\frac{126}{125}\right)^{72} \cdot \left(\frac{225}{224}\right)^{27} \cdot \left(\frac{2401}{2400}\right)^{-19} \cdot \left(\frac{4375}{4374}\right)^{31} \\3 &= \left(\frac{126}{125}\right)^{114} \cdot \left(\frac{225}{224}\right)^{43} \cdot \left(\frac{2401}{2400}\right)^{-30} \cdot \left(\frac{4375}{4374}\right)^{49} \\5 &= \left(\frac{126}{125}\right)^{167} \cdot \left(\frac{225}{224}\right)^{63} \cdot \left(\frac{2401}{2400}\right)^{-44} \cdot \left(\frac{4375}{4374}\right)^{72} \\7 &= \left(\frac{126}{125}\right)^{202} \cdot \left(\frac{225}{224}\right)^{76} \cdot \left(\frac{2401}{2400}\right)^{-53} \cdot \left(\frac{4375}{4374}\right)^{87}\end{aligned}$$

To compute \ln of $2\ 3\ 5\ 7$ using the above expressions one needs approximately $0.66 \cdot n$ of Taylor formula terms to obtain n decimal digits (for n large).