ⓐ $\log \geq 1$

ⓑ $\log$ upto 4 digits.

$(n-1) \cdot \log$ Value
from log
table.

$n = $ no. of integers before
decimal.

$\log 76 \Rightarrow n = 2$

$\log 7 \cdot 6 \Rightarrow n = 1$

$\log$ single digit

$\log x \Rightarrow \log$ Value $\underline{x0} \rightarrow 0$

$\log 2 = 0.3010$

$\quad n = 1$

$\log 3 = 0.4771$

$n = 1$

$\log$ Value $30 \rightarrow 0$

$\log 8 = 0.9031$

$\quad n = 1$

$\log$ Value $80 \rightarrow 0$

$log \rightarrow$ double digit

$log 78 = 1 \cdot 8921$

$n = 2$

$log \underline{91} = 1 \cdot 9590$

$n = 2$

log Value $91 \rightarrow 0$

$log \underline{xy} \rightarrow log$ Value

$xy \rightarrow 0$

$log \underline{9} \cdot 1 = 0 \cdot 9590$

$n = 1$

log Value $91 \rightarrow 0$

$\log \rightarrow 3$ digit

$\log xy z \Rightarrow \log$ value $xy \rightarrow 2$

$\log \dfrac{847}{n=3} = 2 \cdot 9279$

$\log$ value $84 \rightarrow 7$

$\log \dfrac{8 \cdot 47}{} = 0 \cdot 9279$

$n = 1$

$\log$ value $84 \rightarrow 7$

$\log \rightarrow 4$ digit

$\log x y z w \rightarrow \log$ value $\underset{\underbrace{\qquad}}{xy} \longrightarrow z \rightarrow$ value $\left.\begin{array}{l}\log \\ \log \\ \text{value}\end{array}\right\}$ add

$xy \rightarrow \boxed{w} \rightarrow$ value

$\downarrow$
mean difference

$\begin{array}{cccc} & x & y & z & w \\ & & & \checkmark & \\ \log & \underline{2} & 4 & 3 & \circled{7} \end{array} = 3.3868$

$\downarrow$
mean
difference

$n = 4$

$\log$ value $24 \rightarrow 3 = \overset{\text{log value}}{3856}$

$\underline{\qquad} \quad 24 \rightarrow 7 = + \quad 12$

$\downarrow$
mean difference

$\overline{8 \ 8 \ 6 \ 8}$

$\log 243.7 = 2.3868$

$n = 3$

$\log \dfrac{1239}{n=4} = 3.0940$

log value $12 \to 3 = 0899$

$\underline{\hspace{2cm}} 12 \to \textcircled{9} = \dfrac{+ \quad 31}{0940}$

Mean
difference

$\log < 1$

$$\log mn = \log m + \log n$$

$$\log \frac{m}{n} = \log m - \log n$$

$$\log m^{(n)} = n \log m$$

$$\log 1 = 0$$

$$\log 10 = 1$$

$\log 0.23 =$

$$= \log 23 \times 10^{-2}$$

$$= \log 23 + \log 10^{\boxed{-2}}$$

$$= 1.3617 - 2 \log 10$$

$$= -0.6383$$

Antilog

antilog $= 10^{\underline{\text{Power integer before decimal}}}$ $\times$ antilog value from antilog table & place decimal after Ist integer.

antilog upto 4 integers after decimal.

Single digit after decimal

antilog a : x $\rightleftharpoons$ antilog • x, 0. $\rightarrow$ 0

Antilog 2 : 4 $= 2.512. \times 10^{2}$

antilog •40 $\rightarrow$ 0

$$\text{antilog } 27 \cdot 7 : \underline{3} = 1 \cdot 9\,9\,5 \times 10^{27}$$

$$\text{antilog Value } \cdot \underline{30} \nrightarrow 0$$

$$\text{antilog } 35 \cdot 2 : \underline{2} = 1 \cdot 5\,8\,5 \times 10^{35}$$

$$\text{antilog Value } \cdot 20 \nrightarrow 0$$

double digit after decimal

antilog $a \cdot \underline{xy} =$

antilog $\cdot xy \rightarrow 0$
Value.

antilog $137 \cdot \underline{2}6 = 1.820 \times 10^{137}$

antilog Value $\cdot xy \rightarrow 0$

antilog $\underline{8} \cdot \underline{63} = 4.266 \times 10^{8}$

antilog Value $\cdot 63 \rightarrow 0$

triple digit after decimal.

antilog $\underline{a} \cdot xyz$

antilog value $\cdot xy \to z$

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antilog $\underline{21} \cdot \underline{5}\underline{9}\underline{6} = 3 \cdot 9 \, 4 \, 5 \times 10^{21}$

antilog value $\cdot 59 \to 6$

Four digits after decimal.

antilog $a \cdot \underline{xy} \; \underline{z \, w}$

$\begin{matrix} \text{antilog} & \cdot xy \rightarrow z \\ \text{value} & \cdot xy \rightarrow \textcircled{w} \end{matrix} \Bigg\} \rightarrow \text{add}$

$\underset{\downarrow}{}$

mean
difference

antilog $\underline{2} \cdot \underline{72}\underset{\cdots}{1}\underset{\cdots}{3} = 5 \cdot 264 \times 10^2$

antilog $\cdot 72 \rightarrow 1 = 5260$

$\underset{\sim}{} \cdot 72 \rightarrow \textcircled{3} = \dfrac{4}{5264.}$

$\downarrow$

mean
difference

antilog → negative

antilog $-2.46 = \overline{3}.54 = 3.467 \times 10^{-3}$

$= -2 \boxed{-0.46 +1} -1$

$= -3 + 0.54$

$= \overline{3}.54$

$$\text{antilog. } -17 \cdot 12 = \overline{18} \cdot 88 = 7 \cdot 586 \times 10^{-18}$$

$$-17 \quad \boxed{-0 \cdot 12 \ +1} \quad -1$$

$$-18 + 0 \cdot 88$$