

$$\log_m n = a$$

$a \geq 0$

$$\log_{mn} m^n = b$$

$$n^a = m$$

طایفه نرایی

نویسنده ایرانی

یاد هم سری

$$[b] = ?$$

$$\frac{r(a+1)}{a+1} \log_{n^a \times n} n^{r(a+1)} = n^{r(a+1)} = b$$

$$\frac{r(a+1)}{a+1} = b$$

$$1 < \frac{r(a+1)}{a+1} < r$$

$$[b] = 1$$

①

②

$$r \log_m a$$

$$\sqrt{\frac{1}{r}}$$



الف)  $y = \sqrt{\frac{x}{\log \frac{1}{x}}}$   $x > 0$

$\log \frac{1}{x} \neq 0 \Rightarrow (x \neq 1)$

$\frac{x}{\log \frac{1}{x}} > 0 \Rightarrow x > 0$

$D_f = (0, +\infty) - \{1\}$

ب)  $y = \log \frac{(x^x - x - 1)}{x}$

$\sqrt{x^x - 1} + 1$

$x^x - 1 > 0$

$x^x > 1$

$\begin{cases} x > 1 \\ x < -1 \end{cases}$

II

$x^x - x - 1 > 0$

$(x - 1)(x + 1)$

$\frac{1}{+} \frac{1}{+} \frac{1}{+} \frac{1}{+} \frac{1}{+}$  I

D.  $I \cap II = (-\infty, -1) \cup (1, +\infty)$



$$2 \log_a x + \log \sqrt{x} = 2$$

$$x=4$$

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نوسان اریبی  
یازده سری ۳

$$\frac{1}{x} \log a + \frac{1}{\log a} = 2$$

$$\log_a x + \frac{1}{\log_a x} = 2$$

$$t + \frac{1}{t} = 2$$

$$t^2 + 1 - 2t = 0$$

$$(t-1)^2 = 0$$

$$(t-1)^2 = 0$$

$$\log_a x = +1$$

$$a = x$$



$$\log K = 0, \psi$$

$$\log \omega = 0, V$$

$$\log \psi = 0, \chi$$

$$(\log \frac{\omega}{\psi}) \chi^2 + (\log \chi) \psi - \log \omega = 0$$

$$(\log \omega - \log \psi) \chi^2 + \chi (\log \psi) \psi - (\log \psi + \log \omega) = 0$$

$$(0, V - 0, \chi) \chi^2 + \chi (0, \chi) \psi - (0, \chi + 0, V) = 0$$

$$0, \psi \chi^2 + 0, \chi \psi - 1, 1 = 0$$

$$\psi \chi^2 + \chi \psi - 1 = 0$$

$$\chi^2 + \chi \psi - \psi \psi = 0$$

$$(\chi + 1)(\chi - \psi) = 0$$

$$\left( \chi + \frac{1}{\psi} \right) (\chi - 1) = 0$$

$$-\frac{1}{\psi}$$

$$\text{اختلاف ریشه ها} = \frac{1}{\psi}$$



$$\log_{\nu}^{\nu} = \nu, \Lambda$$

$$\log_{\omega}^{\nu} = 0, \omega$$

$$\log_{\nu}^{\omega} = ?$$

$$\log_{\nu}^{\omega} = \frac{1}{\log_{\omega}^{\nu}} = \nu$$

$$\frac{\log_{\nu}^{\omega}}{\log_{\nu}^{\nu}} = \frac{\log_{\nu}^{\omega} + \log_{\nu}^{\nu}}{\log_{\nu}^{\nu} + \log_{\nu}^{\nu}} = \frac{\nu}{\nu, \Lambda}$$

⑧

$$\log_{\mu}^{\omega} = 1, \omega$$

$$\log_{\nu}^{\mu} = 1, \nu \quad \log_{\mu}^{\nu} = \frac{10}{14}$$

$$\log_{\omega}^{\nu} = ?$$

$$\frac{\log_{\nu}^{\nu}}{\log_{\nu}^{\omega}} = \frac{\log_{\nu}^{\mu} + \log_{\nu}^{\omega}}{\log_{\omega}^{\mu} + \log_{\omega}^{\omega}} = \frac{\frac{10}{14}}{\frac{10}{10}}$$

$$\frac{10 \times 14}{14 \times 10} = \frac{40}{100}$$

⑨

$$\frac{1}{\nu} \log_{\Lambda}^{\Lambda} = m$$

$$\frac{1}{\nu} \log_{\nu}^{\nu} = ?$$

$$\log_{\nu}^{\Lambda} = \nu m$$

$$\log_{\nu}^{\nu} + \log_{\nu}^{\Lambda} = \nu m + 1$$

$$\log_{\nu}^{\nu} = \frac{\nu m + 1}{\nu}$$

$$\log_{\nu}^{\nu} + \log_{\nu}^{\nu} = \frac{\nu m + 1}{\nu} + 1$$

$$\log_{\nu}^{\nu} = \frac{\nu m + \nu}{\nu}$$

$$\frac{1}{\nu} \log_{\nu}^{\nu} = \frac{\nu m + \nu}{\nu}$$

⑩



$$1) \log_n 4n+1$$

$$(0.1x)^{2n-1} = \left(\frac{11\phi}{n}\right)^{2n}$$

$$\Rightarrow \begin{cases} x = \frac{1}{2} \\ x = -1 \end{cases}$$

$$\log_n x = \frac{1}{2}$$

$$\log_n (11) \rightarrow \text{تعريف مسدود}$$

⑦

فوتسني اوسي - طاذع مسدي

$$\frac{x}{10} = \frac{1}{3} = \left(\frac{3}{10}\right)^{-1} \left(\left(\frac{3}{10}\right)^3\right)^{x^2}$$

$$\left(\frac{3}{10}\right)^{-1x+1} = \left(\frac{3}{10}\right)^{3x^2}$$

$$3x^2 + 1x - 1 = 0$$

$$x = \begin{cases} \frac{1}{2} \\ -1 \end{cases}$$



④

$$\log_v^w = a \quad \log(vb-1)$$

$$\frac{1}{v} \log_{\frac{v}{v}}^b = \frac{v}{v} (1 + a)$$

$$\frac{1}{v} \log_v^b = \frac{v}{v} (1 + a)$$

$$\log_v^b = v + va = \log_v^v + \log_v^q$$

$$\log_v^b = \log_v^{vq} \quad b = vq$$

$$\log(vb-1) = \log^{100} = \textcircled{v}$$