

$$\log_n^m = a \quad \log_{mn}^{m^2n} = b \rightarrow \frac{\log_n^{m^2n}}{\log_{mn}^{m^2n}} = \frac{\log_n^{m^2} + \log_n^n}{\log_n^m + \log_n^n} = \frac{2(\log_n^m) + 1}{(\log_n^m) + 1} = \frac{2a+1}{a+1} = b$$

a > . [b] = ?

$$\frac{a+1}{a+1} + \frac{a}{a+1} = b \rightarrow [b] = 1$$

$$\therefore \frac{a}{a+1} < 1$$

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$$\sqrt{\frac{x}{\log \frac{1}{x}}} = y \rightarrow \log \frac{1}{x} \neq 0 \rightarrow x \neq 1 \quad \frac{x}{\log \frac{1}{x}} > 0 \rightarrow \frac{1}{-\phi + \phi} \rightarrow D_f = (0, 1)$$

$$\frac{\log x}{\sqrt{x^2-1}+1} = y \rightarrow x^2-1 > 0 \rightarrow \frac{-1}{+\phi-\phi+} \quad x^2-x-2 > 0 \rightarrow (x-2)(x+1) > 0$$

$$D_f = (-\infty, -1) \cup (2, \infty)$$

$$p \log_a^a + \log_a^{\sqrt{a}} = p$$

$$x=9 \rightarrow p \log_9^a + \log_9^{\sqrt{a}} = p \rightarrow p \log_9^a + \underbrace{\log_9^{\sqrt{a}}}_{\frac{1}{p} \log_9^a} = p \rightarrow p \log_9^a + \frac{1}{p} \log_9^a = p \rightarrow p t + \frac{1}{p} = p$$

$$\log_9^a = t$$

$$\frac{pt+1}{p} = p$$

$$pt+1 = pt^2 \rightarrow pt^2 - pt + 1 = 0$$

$$a=3 \leftarrow \log_9^a = \frac{1}{p} \leftarrow t = \frac{1}{p} \leftarrow (pt-1)(pt-1) = 0$$

$$\log_2 = 0.13 \quad \log_3 = 0.14 \quad \left(\log \frac{a}{b} \right) x^p + \left(\log q \right) x - \log \frac{1}{a} = 0 \rightarrow 0.13 x^p + 0.14 x - 1/1 = 0$$

$$\log \frac{1}{p} = \log \frac{1}{q} - \log \frac{1}{r} = 0.14 = \log a \cdot 0.13$$

$$\log \frac{1}{a} = \log a \cdot x^p = \log a + \log x^p = 0.14 + 0.13 = 0.27$$

$$a=1$$

$$x = \frac{1/1}{0.13} = \frac{1}{0.13}$$

$$\text{مقدار} = \frac{1}{p} = 4$$

$$\log \frac{a}{b} = \log a - \log b = 0.14 - 0.13 = 0.01$$

$$\log \frac{1}{p} = 0.13 \quad \log \frac{1}{a} = 0.14 \quad \log \frac{1}{r} = 0 \rightarrow \frac{\log \frac{1}{p}}{\log \frac{1}{r}} = \frac{0.13}{0.14} = 0.93$$

$$\log \frac{1}{p} = \log \frac{1}{r} - \log \frac{1}{q} = \log \frac{1}{r} - \log \frac{1}{p} = 0.13$$

$$\log_{\omega} \omega = 1/\omega \quad \log_{\omega} \omega = 1/\omega$$

$$\log_{\omega} \omega = ? \rightarrow \frac{\log_{\omega} \omega}{\log_{\omega} \omega} = \frac{1/\omega}{1/\omega} = 1/\omega$$

$$\log_{\omega} \omega = \log_{\omega} \omega - \log_{\omega} \omega = \log_{\omega} \omega$$

$$\log_{\omega} \omega = \frac{\log_{\omega} \omega}{\log_{\omega} \omega} \rightarrow \log_{\omega} \omega = 1/\omega$$

$$\log_{\omega} \omega = \log_{\omega} \omega + \log_{\omega} \omega \rightarrow \log_{\omega} \omega = 1/\omega$$

$$\log_{\omega} \omega = m$$

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

$$\log_{\omega} \omega = \log_{\omega} \omega + \log_{\omega} \omega \rightarrow \log_{\omega} \omega = \frac{m+m}{1} \rightarrow \frac{m}{1} (m+1)$$

$$\log_{\omega} \omega = \frac{\log_{\omega} \omega}{\log_{\omega} \omega} = \frac{m \log_{\omega} \omega + \log_{\omega} \omega}{m \log_{\omega} \omega} = m \rightarrow m \log_{\omega} \omega = m-1 \rightarrow \log_{\omega} \omega = \frac{m-1}{m} \rightarrow \log_{\omega} \omega$$

$$\log_{\omega} \omega = \frac{m-1}{m} \leftarrow \frac{1}{m} \log_{\omega} \omega$$

$$(1/\omega)^{m-1} = \left(\frac{1/\omega}{\omega}\right)^{m-1} \rightarrow \frac{1}{1} \left(\frac{1}{\omega}\right)^{m-1} = \left(\frac{1}{\omega}\right)^{m-1} = \left(\frac{1}{\omega}\right)^{m-1} \rightarrow m \log_{\omega} \omega = m-1 \rightarrow m \log_{\omega} \omega = m-1 \rightarrow m \log_{\omega} \omega = m-1$$

$$\log_{\omega} \omega = a \rightarrow \omega^a = \omega \rightarrow \omega^a = \omega$$

$$\log_{\omega} \omega = \frac{1}{\omega} (1+a) \rightarrow \frac{1}{\omega} \log_{\omega} \omega = \frac{1}{\omega} (1+a) \rightarrow \omega^{1+a} = \omega \rightarrow \omega \times \omega^a = \omega \rightarrow \omega = \omega$$

$$\log_{\omega} (\omega-1) = ? \quad \log_{\omega} (\omega-1) = \log_{\omega} (1-1) = \log_{\omega} 0 = \boxed{P}$$

$$-f a x^2 + b x + \frac{1}{c} = 0$$

$$\frac{1}{\sqrt{f}} = \left(\frac{1}{\omega}\right)^{\frac{1}{\omega}} = \frac{1}{\omega} \rightarrow S = \frac{1}{b} = \log f \rightarrow \frac{a}{b} = \frac{\log f}{f}$$

$$\frac{1}{a} = \frac{b}{a} + \frac{c}{a} \rightarrow \frac{1}{a} = \frac{b}{a} + \frac{c}{a} \rightarrow \frac{1}{a} = \frac{b}{a} + \frac{c}{a} \rightarrow \frac{1}{a} = \frac{b}{a} + \frac{c}{a}$$

$$\frac{1}{\omega} \frac{1}{\log f} = \frac{1}{\omega} \frac{1}{\log f} = \frac{1}{\omega} \frac{1}{\log f} = \frac{1}{\omega} \frac{1}{\log f} = \frac{1}{\omega} \frac{1}{\log f} = \frac{1}{\omega} \frac{1}{\log f}$$