۱۸,۵

Viana subject : Year : Month : Date :

عرفان حقیقی یازدهم پسر A

$\log_n^m = a \Rightarrow n^a = m$ (۲) (۱

$\log_{mn}^{m^2 n} \Rightarrow \log_n^{a+1} = b \Rightarrow \frac{2a+1}{a+1} \log_n^n = b$

$[b] = \left[\frac{2a+1}{a+1}\right] \Rightarrow \left[\frac{2a+2-1}{a+1}\right] \Rightarrow \left[2 - \underbrace{\frac{1}{a+1}}_{(0,1)}\right]$

$[b] = 1$ ✓

الف) $\log_{\frac{1}{2}}^{x} > 0 \Rightarrow x < 1$ II $\quad x > 0$ I (۳

دامنه گیریم

$I \cap II = D = (0,1)$ ✓ (۲

ب) $x^2 - x - 2 > 0 \Rightarrow \frac{-1 \quad 2}{+ \;|\; - \;|\; +} \Rightarrow (-\infty, -1) \cup (2, +\infty)$ I

$x^2 - 1 \geq 0 \Rightarrow x^2 \geq 1 \Rightarrow x \geq 1 \cup x \leq -1$

$I \cap II \Rightarrow D = (-\infty, -1) \cup (2, +\infty)$ ✓

V

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۳) ②

$2\log_{3^2}^{a}$

$2\log_{9}^{a} + \log_{a}^{3} \Rightarrow \log_{3}^{a} + \log_{a}^{3} = 2$

$\frac{1}{\log_{a}^{3}} + \log_{a}^{3} = 2 \xRightarrow{\log_{a}^{3} = A} \frac{1}{A} + A = 2 \Rightarrow$

$A = 1 \Rightarrow \log_{a}^{3} = 1 \Rightarrow a = 3$ ✓

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۴) ②

$\log_{10}^{\frac{5}{3}} \Rightarrow \underbrace{\log_{10}^{5}}_{\log_{10}^{10} - \log_{10}^{2}} - \log_{10}^{3} \Rightarrow 0/7 - 0/4 = 0/3$

$\log_{10}^{9} = 2\log_{10}^{3} \Rightarrow 2(0/4) \Rightarrow 0/8$

$\log 15 = \underbrace{\log_{10}^{5}}_{\log_{10}^{10} - \log_{10}^{2}} + \log_{10}^{3} \Rightarrow 0/7 + 0/4 =$

$0/3x^2 + 0/8x - 1/1 \Rightarrow 3x^2 + 8x - 11 = 0$

$x \begin{cases} 1 \\ \frac{-11}{3} \end{cases}$ $\quad \alpha - \beta = \frac{14}{3}$ ✓

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$\frac{\log_{10} 5}{\log_{15} 10} \Rightarrow \frac{\log_2 5 + \log_3 5}{\log_3 2 + \log_3 7} \Rightarrow \frac{0.3 + 1}{0.3 + \log_3 7}$ /3

(2)

$\log_3 7 \Rightarrow \frac{\log_2 7}{\log_2 3} \Rightarrow \frac{2.8}{2} = 1.4$

$\log_3 2 = 0.3 \quad \frac{1}{\log_2 3} = 2$

$\log_{15} 10 \Rightarrow \frac{0.3 + 1}{0.3 + 1.4} \Rightarrow \frac{1.3}{1.7}$ ✓

$\frac{\log_2 6}{\log_2 15} \Rightarrow \frac{\log_2 3 + \log_2 2}{\log_2 3 + \log_2 5} \Rightarrow \frac{1.6 + 1}{1.6 + \log_2 5}$ /5

(2)

$\log_2 5 \Rightarrow \frac{\log 5}{\log 2} \Rightarrow \frac{1.3}{0.3} = 2.4$

$\log_2 3 = 1.6 \Rightarrow \frac{1}{\log 3} = \frac{10}{16}$

$\log_{15} 6 \Rightarrow \frac{1.6 + 1}{1.6 + 2.4} = 0.6$ ✓

V

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(۲) (۷

$\log_{۸}^{۱۸} = m \Rightarrow \frac{۱}{۳}\log_{۲}^{۱۸} = m \Rightarrow \log_{۲}^{۱۸} = m$

$\log_{۲}^{۲} + \log_{۲}^{۹} = ۳m \Rightarrow ۱ + ۲\log_{۲}^{۳} = ۳m \Rightarrow$

$\log_{۲}^{۳} = \frac{۳m-۱}{۲}$ $\log_{۴}^{۱۲} \Rightarrow \frac{۱}{۲}\log_{۲}^{۱۲} \Rightarrow$

$\frac{۱}{۲}\left(\log_{۲}^{۴} + \log_{۲}^{۳}\right) \Rightarrow \frac{۱}{۲}\left(۲ + \frac{۳m-۱}{۲}\right) \Rightarrow \frac{۳(m+۱)}{۴}$ ✓

$$\left(\frac{4}{10}\right)^{2n-1} \div \left(\frac{125}{8}\right)^{n^2} \Rightarrow \left(\frac{5}{5}\right)^{3n-1} \div \left(\frac{5}{2}\right)^{3n^2}$$

(۲)

$$3n-1 = -3n^2 \Rightarrow 3n^2+3n-1=0 \Rightarrow n \begin{cases} -1 \\ \frac{1}{3} \end{cases}$$

$\log_8^{-8}$ تعریف نشده

$$\log_8^4 \Rightarrow \frac{2}{3}\log_2^2 = \frac{2}{3}$$

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$\log_{۲}^{۳} = a$ (۲) (۹

$\log_{۸}^{b} = \frac{۲}{۳}(۱+a) \Rightarrow \frac{۱}{۳}\log_{۲}^{b} = \frac{۲}{۳}(\log_{۲}^{۲} + \log_{۲}^{۳})$

$\frac{۱}{۳}\log_{۲}^{b} = \frac{۱}{۳}\log_{۲}^{۳۶} \Rightarrow b = ۳۶$

$\log(۳b - ۸) \Rightarrow \log ۱۰۰ \Rightarrow ۲$ ✓

(0,25) /a1.

$$\frac{1}{\alpha}+\frac{1}{\beta}=\frac{\alpha+\beta}{\alpha\beta} \Rightarrow \frac{S}{P}=\frac{\Lambda ab}{-\Gamma ac}=\frac{\Gamma b}{-c}$$

$$\text{⊗ } a=\frac{b+c}{\Gamma}$$

$$a=\frac{b+c}{\Gamma} \rightarrow b=\Gamma a-c$$

$$\frac{1}{n_1+n_2}=\frac{1}{S}=\frac{\Gamma a}{b}=\frac{\Gamma \Gamma a}{\Gamma a-c}=\lg \Gamma=\Gamma \lg \Gamma \rightarrow \frac{\Gamma a}{\Gamma a-c}=\lg \Gamma$$

معکوس $\rightarrow \quad \frac{\Gamma a-c}{\Gamma a}=\lg_{\Gamma}^{1\cdot} \rightarrow 1-\lg_{\Gamma}^{1\cdot}=\frac{c}{\Gamma a} \rightarrow \Gamma-\lg_{\Gamma}^{1\cdot\cdot}=\frac{c}{a}$

$$(\Gamma^{\frac{-1}{\Lambda}})^{\frac{c}{a}}=(\Gamma^{\frac{c}{a}})^{\frac{-1}{\Lambda}}=(\Gamma^{\Gamma-\lg_{\Gamma}^{1\cdot\cdot}})^{\frac{-1}{\Lambda}}=(\frac{\Gamma}{1\cdot\cdot})^{\frac{-1}{\Lambda}}=\Delta^{\frac{1}{\Gamma}}=\boxed{\sqrt[\Gamma]{\Delta}}$$