

یازدهم فصل ۱۱

سوال ۱)  $\log_n^m 2a \quad \log_{mn}^{m^2n} 2b \rightarrow mn^b \quad m^2n$

$\downarrow$   
 $n^a = m$      $(b) = \left[ \log_{mn}^{m^2n} \right] \rightarrow \left[ \log_n^{2a+1} \right] = \left[ \frac{2a+1}{a+1} \right] = 1$

صورت از مخرج بزرگتر است  $\left[ \frac{2a+1}{a+1} \right] = 1$

سوال ۲)  $y = \sqrt{\frac{x}{\log_a x}}$

صعبی  $\log$  باید + باشد

وزیر را دنبال بزرگتر یا صافی (۵)  $\leftarrow n < a < \infty$  - مثل صبیح در صبیحیت

ب)  $\frac{\log_e (a^2 - n - 2)}{\sqrt{n^2 - 1} + 1}$

$n < -1$  یا  $n > 2$

$\sqrt{n^2 - 1} + 1 \neq 0$  ✓  
 بدقتار

$\sqrt{n^2 - 1} + 1 \neq 0, n^2 - 1 \geq 0 \rightarrow n^2 - n - 2 > 0$

$n \rightarrow (-\infty, -1) \cup (2, +\infty)$

یا  $n \geq 1$   
 یا  $n \leq -1$

سوال ۳)

$2 \log_a^a + \log_a^{\sqrt{a}} = 2$

$n = a \rightarrow \mu^2$   
 $\log_a^a = t$

$2 \log_a^a + \log_a^{\mu} = 2 \rightarrow \log_a^a + \log_a^{\mu} = 1$

$x^t \rightarrow t^2 - 2t + 1 = 0 \rightarrow (t-1)^2 = 0 \rightarrow t = 1$

$\log_a^a = 1 \rightarrow a = 3$

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$\log_a^a = 1 \rightarrow (a = 3)$

Subject:  $\log 4 = .15$      $\log 2 = .13$

NOTEBOOK

$$\log 8 = \log \frac{1}{4} \rightarrow \log 1 - \log 4 = 1 - .15 = .85$$

(سوال 4)

$$\left(\log \frac{8}{4}\right) x^2 + (\log 4) x - \log 10$$

$$\downarrow$$

$$(\log 8 - \log 4) x^2 + r(\log 4) x - \log 10 \quad \frac{d}{dx} x^2 = 2x$$

$\log 8 = \log 2^3 = 3 \log 2 = 3 \times .13 = .39$

$$.15 x^2 + .11 x - 1/1 = 0 \rightarrow x = \frac{-.11 \pm \sqrt{.11^2 - 4(.15)(-1)}}{2(.15)}$$

$$\log_{15} 1$$

$$\log 8 = .18 \quad \log_{10} 2 = .30$$

$$\rightarrow \log_{15} 2 = \frac{\log 2}{\log 15} = \frac{.30}{.175} = 1.71$$

$$r = 0.5 \rightarrow \Delta^2 = 2^2 = 4$$

$$\rightarrow \log_{15} 2^2 = \frac{2 \log 2}{\log 15} = \frac{2 \times .30}{.175} = \frac{1.2}{.175} = 6.85$$

جواب

$$\log_3 8 = 1.10$$

$$3^x = 8 \rightarrow$$

(سوال 6)

$$\log_3 2 = 1.14$$

$$3 = 2^{1.14} = \frac{2}{3} \rightarrow 2 = 3 \times \frac{2}{3}$$

(5)

$$\log_{10} 4 = 0.60 \quad \log_{10} 2 = 0.30 \rightarrow \log_{10} 2^2 = 2 \times 0.30 = 0.60$$

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$$\log_2 11 = m$$

$$\rightarrow 2^{m-1} = 2^m \times 2^{-1} \rightarrow 2^{\frac{m-1}{2}} = 2^m$$

(سوال 7)

$$\log_{12} 12 \rightarrow \frac{12^m}{12} \rightarrow \log_{12} 12^{\frac{m+1}{2}} \Rightarrow \log_{12} 12^{\frac{m+1}{2}}$$

$$\Rightarrow \frac{m+1}{2} = \frac{m}{2} (m+1)$$

Sabalan



Subject:

Year:

Month:

Date:

NOTE BOOK

$$\begin{aligned} \left(\frac{1}{\sqrt{x}}\right)^{\frac{1}{2}} &= \left(\frac{1}{\sqrt{x}}\right)^{\log_{\sqrt{x}} \frac{1}{\sqrt{x}}} = \left(\frac{1}{\sqrt{x}}\right)^{\log_{\sqrt{x}} \frac{1}{\sqrt{x}}} \\ &= \left(\frac{1}{\sqrt{x}}\right)^{\log_{\sqrt{x}} \frac{1}{\sqrt{x}}} = \left(\frac{1}{\sqrt{x}}\right)^{-\frac{1}{2}} = \frac{1}{\sqrt{x}^{-\frac{1}{2}}} = \sqrt{x} \end{aligned}$$