

19, 10

بازدم دهنده برده C

عس ط عرس

$$1 - \log_c(ax-b) \xrightarrow{x=5} 1 - \log_c^{-b} = 2 \rightarrow \log_c^{-b} = -1 \quad \leftarrow \text{سوال}$$

$$\rightarrow c^{-1} = -b \rightarrow \frac{1}{c} = -b$$

$$1 - \log_c(\frac{r}{2}a-b) = 0 \rightarrow \log_c(\frac{r}{2}a-b) = 1 \rightarrow C = \frac{r}{2}a-b \rightarrow c+b = \frac{r}{2}a$$

$$\rightarrow a = +1 \rightarrow C - \frac{1}{C} = -\frac{r}{2} \rightarrow C = \frac{1}{2}, b = -\frac{r}{2}$$

$$\rightarrow (a+c)b = -\frac{r}{2}$$

$$1 + Cx^{a+bx} \xrightarrow{x=1} 1 + Cx^a = 0 \rightarrow Cx^a = -1 \quad \leftarrow \text{سوال}$$

$$1 + Cx^{a+bx} \xrightarrow{x=1} 1 + Cx^a = \frac{r}{2} \rightarrow Cx^a = -\frac{1}{2} \quad \leftarrow \div \rightarrow \mu b = 2$$

$$\rightarrow b = 1$$

$$\rightarrow Cx^{a+b=1} \rightarrow Cx^a = -\frac{1}{2} \rightarrow x^a \times C = -\frac{1}{2}$$

$$\rightarrow -\frac{1}{2} \times 1^{1/2} + 1 \rightarrow x = -1 \rightarrow -\frac{1}{2} + 1 = \frac{1}{2}$$

$$c + \log_{\omega}(ax+b) \xrightarrow{x=1} c + \log_{\omega}(b) = 2 \quad \leftarrow \text{سوال}$$

$$c + \log_{\omega}(\frac{r}{2}a+b) = 0 \rightarrow \log_{\omega}(b) - \log_{\omega}(\frac{r}{2}a+b) = 2$$

$$\rightarrow \frac{b}{\frac{r}{2}a+b} = \omega^2 \rightarrow 4 \cdot a + 2 \cdot b = b \rightarrow 4 \cdot a = 2 \cdot b \rightarrow$$

$$\rightarrow a = \frac{2}{4} b \rightarrow \frac{a}{b} = \frac{2}{4} = \frac{1}{2}$$

$$f(x) = \log_{\xi} |x^2 - 2| - x \rightarrow |x^2 - 2| - x > 0 \rightarrow |x^2 - 2| > 0 \quad \leftarrow \text{سوال}$$

$$\rightarrow x^2 - 2 > 0 \rightarrow x^2 > 2 \rightarrow x \geq \sqrt{2} \text{ و } x \leq -\sqrt{2} \quad \textcircled{1}$$

$$x^2 - x - 2 > 0 \rightarrow (x-2)(x+1) > 0 \rightarrow -1 < x < 2 \quad \textcircled{2}$$

$$\rightarrow \textcircled{1} \cap \textcircled{2} \rightarrow x \leq -\sqrt{2} \text{ و } x \geq 2$$

$$\textcircled{3} \quad x^2 - 2 < 0 \rightarrow -\sqrt{2} < x < \sqrt{2} \Rightarrow \textcircled{4} \quad -2 < x < 1$$

Subo

$$\text{جواب} \rightarrow (-\infty, -1) \cup (2, +\infty)$$

سرانی ← $f(t) = A \left(\frac{94}{100}\right)^t \rightarrow \frac{A}{2} = A \left(\frac{94}{100}\right)^t$

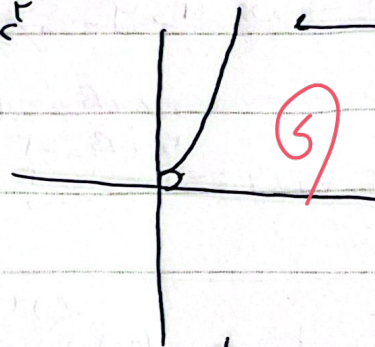
$\rightarrow \left(\frac{94}{100}\right)^t = \frac{1}{2} \rightarrow \log\left(\frac{94}{100}\right)^t = \log\frac{1}{2}$

$\rightarrow t(\log 94 - \log 100) = \log\frac{1}{2} = -\log 2 \rightarrow t(109^{\omega} + 4y^{\omega} - 2) = 109^{\omega}$

$\rightarrow t(2(13^{\omega}) + 1,58 - 2) \rightarrow t(1,04 + 2(13^{\omega}) - 2) = -0,58 t$

$\rightarrow t = 26$

سرانی ← $y = \log^x x \rightarrow x = \log^y y \rightarrow y = x^2$
 $\hookrightarrow x > 0$



ب) $y = \log x^2 \rightarrow 2 \log x \rightarrow$
 $D_f = \mathbb{R} - \{0\}$

