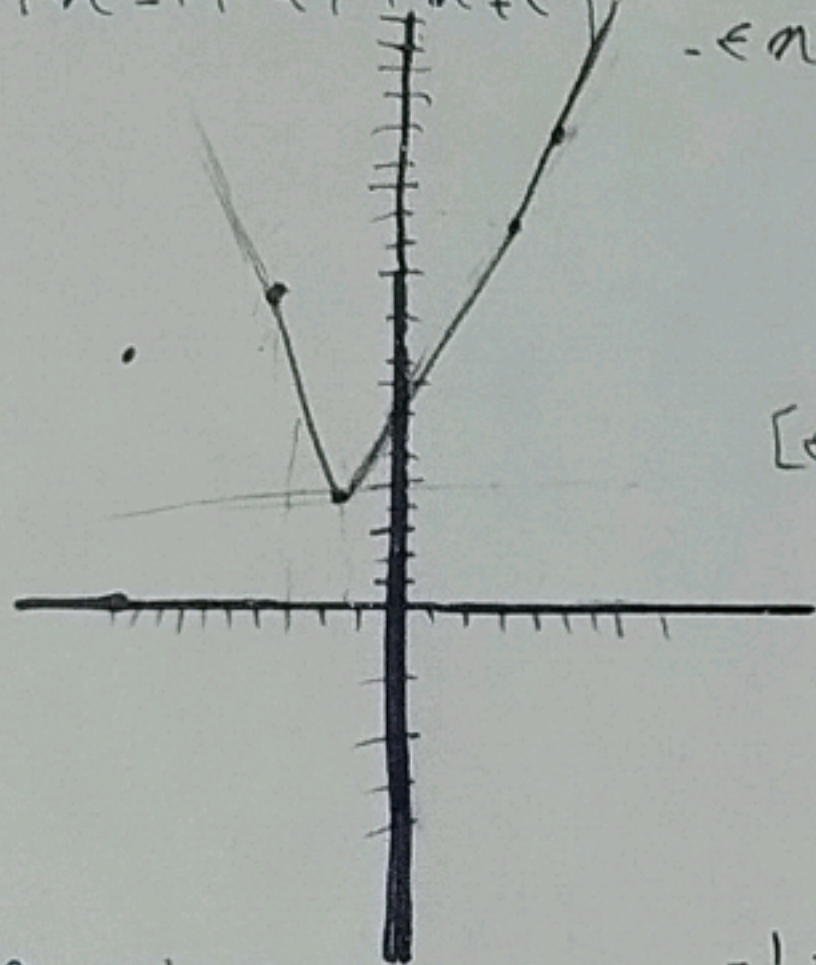


$$v = |a - r| + |r a + e|$$



	$-\frac{e}{r}$	r	r	$-\frac{e}{r}$
$-\infty < r < -1$	$-a + r$	$ra + e + a - r$	$\downarrow$	$-\frac{e}{r}$
	$ra + e$	∞	$\downarrow$	$\downarrow$
	$\frac{1}{r} + ra$	$\frac{1}{r}$	$\downarrow$	$\downarrow$
	$\Rightarrow e = \frac{1}{r}$			

$$[-\frac{1}{e}, \infty)$$

$$v = |a - r| + |ra + e| \Rightarrow$$

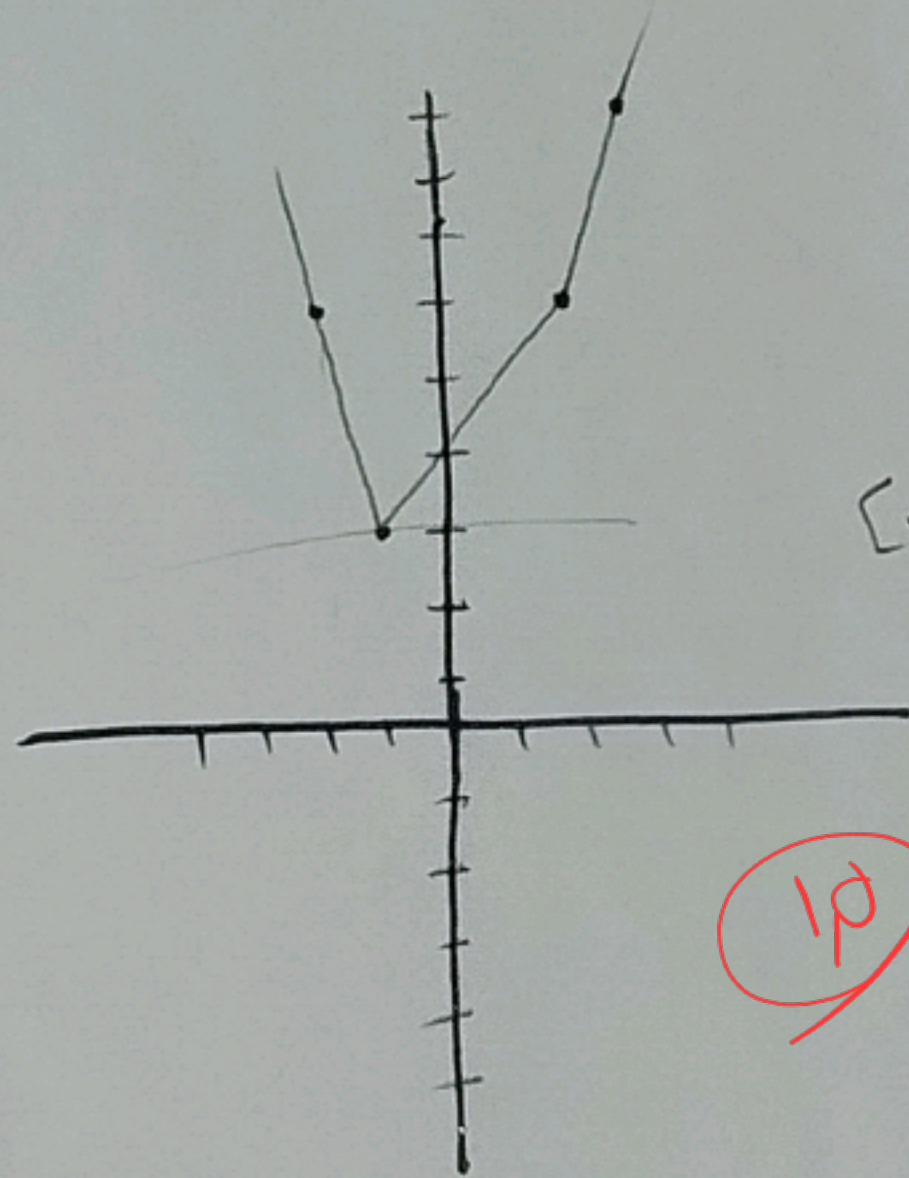
$$\begin{aligned} -1 &\Rightarrow r \\ r &\Rightarrow e \\ -r &\Rightarrow e + r \Rightarrow e \\ r &\Rightarrow 1 + r = 9 \end{aligned}$$

$$v = |ra - r| - |a + 1|$$



$$\begin{aligned} 1 &\Rightarrow -r \\ -1 &\Rightarrow e \\ -r &\Rightarrow +e + (-1) = 2 \\ r &\Rightarrow e - r = 1 \end{aligned}$$

$$[-2, \infty)$$



$$[1, \infty)$$

10

الف 1. $\frac{-1}{-ra} \mid \frac{r}{a+r} \mid \frac{r}{ra}$

ب 1. $\frac{-1}{-a+r} \mid \frac{1}{-ra+1} \mid \frac{1}{a-r}$

منابع بنی

$$y = (a^x - 3a^x + 3a \Rightarrow -1) + 1 \Rightarrow (a-1)^x + 1 = 0 \Rightarrow a-1 = (a-1)^x$$

$$\sqrt{a-1} = a-1 \Rightarrow \sqrt{a-1} + 1 = a \Rightarrow 10$$

$$y = \frac{1}{a^x - 3a} \Rightarrow y a^x - 3y a = 1 \Rightarrow y a^x - 3y a - 1 = 0 \Rightarrow y a^x - 3y a - 1 = 0 \Rightarrow y a^x - 3y a - 1 = 0$$

$$\frac{-1}{+4-4} \Rightarrow \mathbb{R} - (-1, 0)$$

$$y = \frac{a^x - 3a}{(a-3)^x} \Rightarrow f(x) \Rightarrow 0 < x < \infty$$

$$y = -a^x - 3a - 3 \Rightarrow \frac{-x}{-x} = 2 \Rightarrow -9 + 18 + 3 = 12 \Rightarrow (-\infty, 12]$$

$$y = \sqrt{a^x - 3a - 3} \Rightarrow \frac{x}{x} = 1 \Rightarrow x - 1 - 3 < 0 \Rightarrow x < 4 \Rightarrow [0, 4)$$

$$y = \sqrt{3a - a^x} \Rightarrow \frac{-x}{-x} = 2 \Rightarrow 18 - 9 = 9 \Rightarrow x = 3 \Rightarrow (-\infty, 9] \Rightarrow [0, 3]$$

$$y = a^x - 3a^x + 3a + 1 \Rightarrow \mathbb{R}$$

$$y = \sqrt{a^x - 3a^x + 3a + 1} \Rightarrow \mathbb{R} \Rightarrow [0, \infty)$$

$$y = a^x - 3a^x + 3a + 2 \Rightarrow \mathbb{R}$$

$$y = (a^x - 3a^x + 3a + 1)^x \Rightarrow [0, \infty)$$

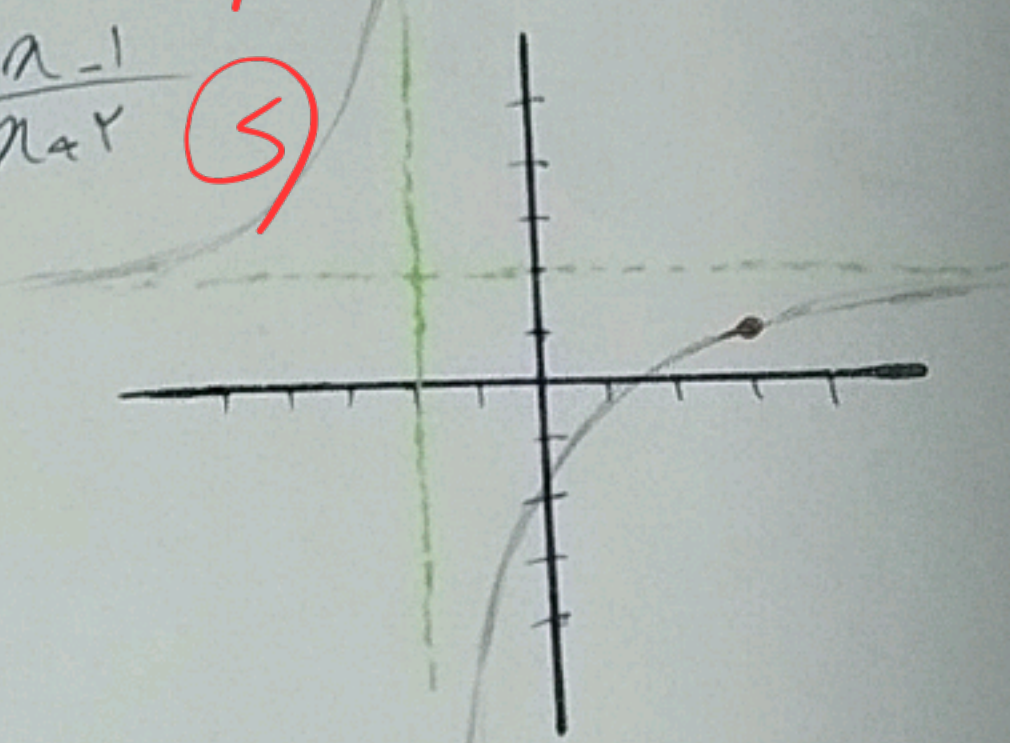
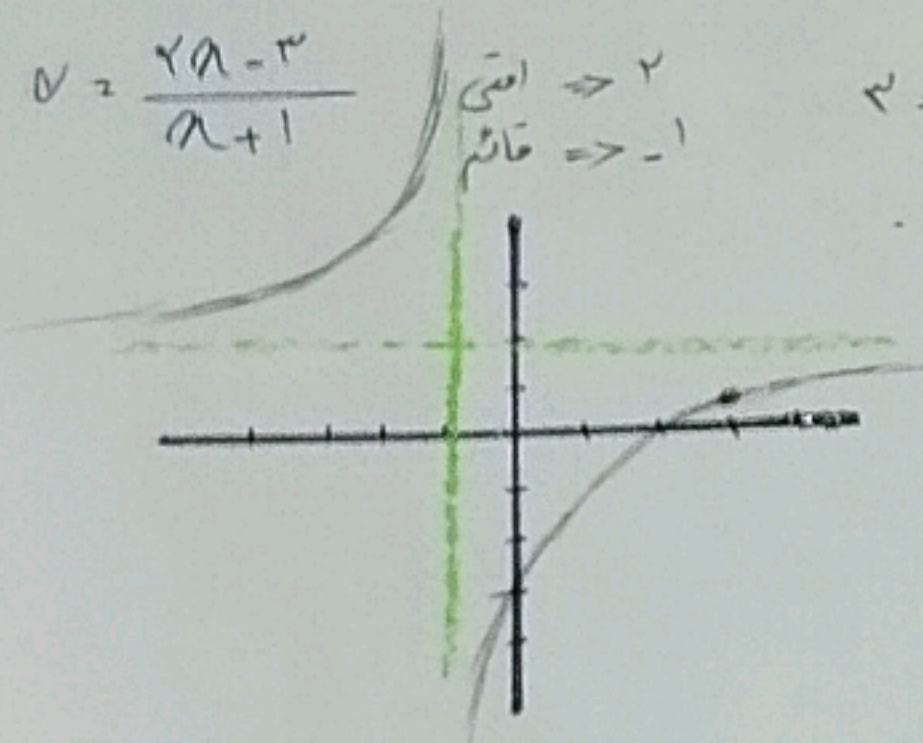
$$y = \frac{x+1}{a-x} \Rightarrow \mathbb{R} - \{x\}$$

$$y = \frac{x+1}{a-x} \Rightarrow \mathbb{R} - \{x\}$$

$$y = \sqrt{\frac{x+1}{a-x}} \Rightarrow [0, \infty) - \{x\} \Rightarrow [0, \infty)$$

$$y = \frac{x+1}{a-x}$$

$$y = \frac{x+1}{a-x} \Rightarrow \frac{x}{x} = 1 \Rightarrow y = \frac{x+1}{a-x}$$



$\rightarrow y$ اقل
 $-y$ قاسم
 $x \Rightarrow \frac{a}{a} = 1$

$$y = \sin a + \frac{1}{\sin a} \Rightarrow (-\infty, -2] \cup [2, \infty)$$

$$y = \frac{\sqrt{a^x - 1}}{\sqrt{a}} \Rightarrow \sqrt{a} + \frac{1}{\sqrt{a}} \Rightarrow (-\infty, -2] \cup [2, \infty)$$

$$y = a^x - \frac{1}{a^x + 3} \Rightarrow a^x - 3 = \frac{1}{a^x + 3} \Rightarrow (a^x - 3)^2 - 1 = 0 \Rightarrow (a^x + 3 - 1)(a^x + 3 + 1) = 0$$

$$\min \Rightarrow x = \frac{1}{2} \Rightarrow x = \frac{1}{2} \Rightarrow \left[\frac{1}{2}, \infty\right)$$

$$y = \frac{a^x + 5}{\sqrt{a^x + 5}} \Rightarrow \sqrt{a^x + 5} \Rightarrow \frac{1}{\sqrt{a^x + 5}} \Rightarrow \frac{1}{\sqrt{5}} \Rightarrow \left[\frac{1}{\sqrt{5}}, \infty\right)$$