

بیشترین مقدار

(الف) $x \rightarrow \infty \quad y \rightarrow 1$
 خارج نیز منفی نشود $x=1 \quad y = -\frac{1}{x}$
 کمترین مقدار

$D = (-\infty, -\frac{1}{2}] \cup [\frac{1}{2}, +\infty)$

(ب) $\frac{x^2+1}{|x|} \leq |x| + \frac{1}{|x|} \Rightarrow |x| \geq \frac{1}{2} \Rightarrow D = [\frac{1}{2}, +\infty)$

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

$x = \frac{y-1 \pm \sqrt{y^2+1y+1}}{2}$

$\Rightarrow y^2+1y+1 \geq 0$

$\Rightarrow (y+1)(y+1) \geq 0 \Rightarrow \frac{y+1}{y+1} \geq 0$

$D = (-\infty, -1] \cup [-1, +\infty)$

$\frac{(x-\frac{1}{x})^2}{(x-\frac{1}{x})^2 + \frac{3}{x}}$

$\Rightarrow x - \frac{1}{x} = t$

داده؟

$\frac{t^2}{t^2 + \frac{3}{x}}$

$\begin{cases} t \rightarrow \infty & y=1 \\ t \rightarrow 0 & y=0 \end{cases}$

$D \neq \mathbb{R}$ خارج محور نیست

$D = [1, +\infty)$

خارج نیز منفی نشود

(الف) $y = \sqrt{-x^2+4x+1} \rightarrow -\frac{4}{-2} \leq 0 = x_3 \quad y_3 = 1$

$\sqrt{(-\infty, 3]} = [-1, \sqrt{3}]$

(ب) $y = \sqrt{x^2+4x+1}$

$\frac{1}{x} \leq 2 = x_3 \quad y_3 = -1$

$\Rightarrow \sqrt{[1, +\infty)} \Rightarrow D = [-1, +\infty)$

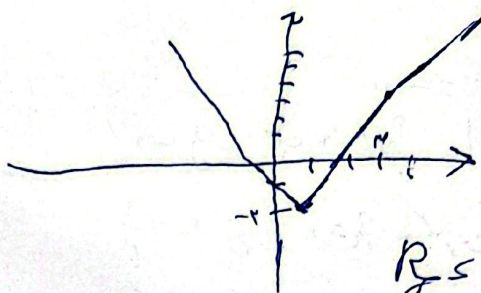
(الف)

$x^2 - x + 1 \Rightarrow D \leq \frac{1}{4} \Rightarrow \log(-\infty, +\infty)$

$\Rightarrow R \leq \frac{1}{4}$

(ب) $\log x \cdot \log \frac{1}{x} \cdot \log [2, +\infty) \Rightarrow D = [1, +\infty)$

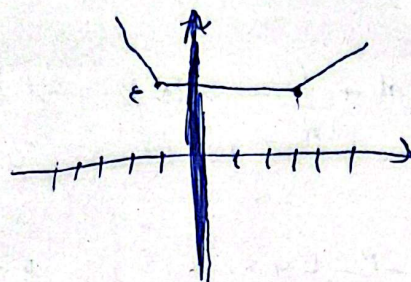
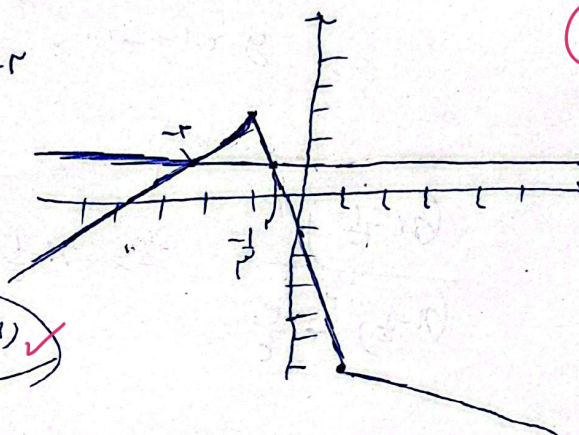
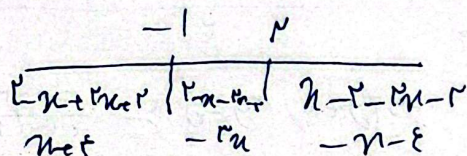
$\log y \cdot \log (-\infty, -2) \rightarrow \text{غیر}$

$$\frac{1}{n-1} \left(\frac{n-1}{n-2} - \frac{n-1}{n-1} + \frac{n-1}{n+1} \right)$$


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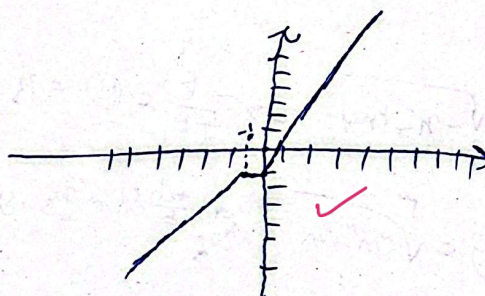
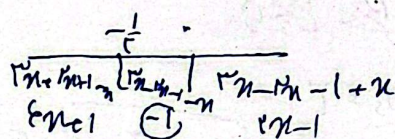
$$R_f \leq (-5\infty)$$

تابع گلوئی


$$Q = [e_1, e_2]$$


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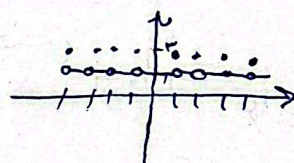
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$$(-\infty, -\frac{1}{2}] \cup [-\frac{1}{2}, +\infty)$$


1

$R \leq 110$ (2)

الف) $[n] \in [-n] \in \mu$

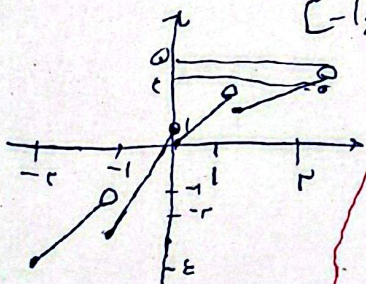

$$Z = \{ \cancel{C}, F \}$$

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$[-1, -1) \Rightarrow \mathbb{N} + 1$ $[\Phi, 1) \Rightarrow \mathbb{N}$
 $[-1, 0) \Rightarrow \mathbb{N} + 1$ $[1, 1) \Rightarrow \mathbb{N} - 1$ $\{1\} \Rightarrow \mathbb{N} + 1$


$$L = \frac{1}{2} (-\frac{1}{2})$$
$$\Rightarrow \rho = \left[\begin{matrix} \mu \\ \mu \end{matrix} \right] \quad (2) \quad 10$$

(الف) $\frac{m \sin \theta}{m \sin \theta} = \frac{1}{1} = 1$
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trans $\Rightarrow \mu$
 minor $\rightarrow 1$
 $-\frac{b}{a} = -\frac{1}{2} \Rightarrow 50\%$

$R = [1, 5]$