

صادقہ سہمیں پر صوبہ راس آن $y = a(x-4)^2 + 3 \xrightarrow{\text{نقشہ}} a = -\frac{1}{3}$

سوال (۱)

$$y = -\frac{1}{3}(x-2)^2 + 3 \rightarrow y = 0 \rightarrow (x-2)^2 = 9$$

$$x-2 = 3 \rightarrow x = 5$$

$$x-2 = -3 \rightarrow x = -1$$

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۱ میں جلائی

۱۴۴۵ ۴ ربیع الاول

$$\begin{array}{l} \text{تغییرات: } 1 \xrightarrow{-2} -1 \xrightarrow{\div 3} -\frac{1}{3} \rightarrow \alpha \\ \text{تغییرات: } 5 \xrightarrow{x-2} -1 \xrightarrow{+1} -7 \rightarrow \beta \end{array} \left\{ \begin{array}{l} \alpha\beta = \frac{7}{3} \\ \hline \end{array} \right. \quad \begin{array}{l} \textcircled{2} \\ \textcircled{2} \end{array}$$

$$\psi = \sqrt{\mu(x+1)} \xrightarrow{\text{قرينة}} \sqrt{\mu x + \mu} - \mu \xrightarrow[\text{نقل}]{\text{إضافة } \mu} \sqrt{\mu x + \mu + \mu}$$

(2) (2)

$$\sqrt{\mu x + \mu} + \mu = \frac{\mu}{\mu} \Rightarrow \sqrt{\mu x + \mu} = \frac{\mu}{\mu} \Rightarrow \mu x + \mu = \frac{\mu^2}{\mu} \Rightarrow \mu x = \frac{\mu^2}{\mu} - \mu$$

$$\boxed{x = \frac{1}{\mu}}$$

$$(a+1, \omega] \cap [-r, b-1) = (-r, \omega)$$

$$\Rightarrow a+1 = -r \Rightarrow a = -r-1$$

$$b-1 = \omega \Rightarrow b = \omega+1$$

$$\Rightarrow -r-1 = -4 \quad \checkmark$$

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$$-3 \leq x \leq \infty \rightarrow -\frac{3}{\frac{1}{x}} \leq \frac{x}{\frac{1}{x}} \leq \frac{\infty}{\frac{1}{x}} \rightarrow -\frac{1}{x} \leq x+1 \leq \frac{\infty}{x} \quad Df_x \left[-\frac{1}{x}, \frac{\infty}{x} \right]$$

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$$Df_{\left(\frac{x}{x+1}\right)} = [-3, \infty] \rightarrow Df_{\left(\frac{x}{x}\right)} = [-2, 4] \rightarrow Df_{(x)} = [-1, 3]$$

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$$Rf_{(x)} = [-1, 2] \rightarrow R_{\frac{1}{x}} f_{(x)} = [-2, 4] \rightarrow R_{\frac{1}{x}} f_{(x)-3} = [-\infty, 1]$$

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$$R_{\frac{1}{x}} f_{(x)-3} = [-\infty, 1] \rightarrow R_{\sqrt{|1-f_{(x)}-3|}} = [0, \sqrt{\infty}]$$

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نقاط قوت و رتوانی بررسی حالت $a < 0$ ←

سوال 6

$$f\left(-\frac{1}{a}\right) = \frac{-1}{a^2} [-1] = \frac{1}{a^2} \rightarrow a^2 < 2 \xrightarrow{a < 0} a < -\sqrt{2}$$

$$b = 1 \rightarrow b - a < 3$$

$$f(x) = \log_p x \rightarrow \log_p^{x+p} \rightarrow -\log_p^{x+p} \rightarrow -\log_p^{x+p} + p \quad (1)$$

$$\Rightarrow g(x) = -\log_p^{-x+p} + p \quad (2)$$

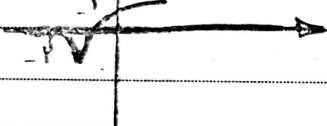
$$\Rightarrow g(-1^p) = \boxed{-1} \quad , \quad g(-4^p) = \boxed{-p}$$

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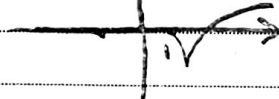
$$y = -f(x)$$



$$y = f(x-x)$$

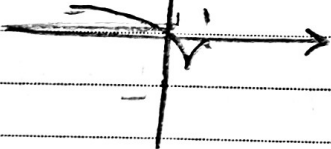


$$f(-x)$$

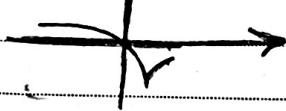


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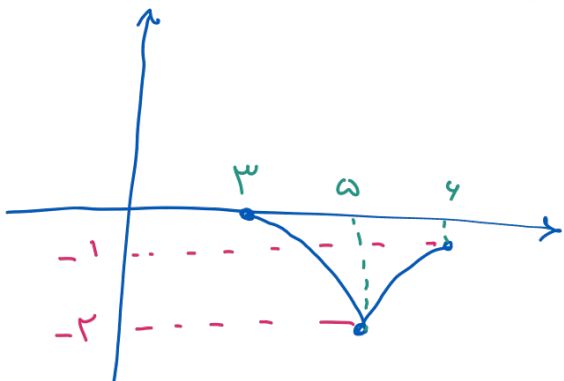
$$f(x)$$



$$f(x)-1$$



$$f(x)-1$$



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با $\sqrt{2}$ ضرب و ساده سازی $f(x) = \left| \frac{x-1}{\sqrt{x-2}+1} \right| \xrightarrow{\text{اواسط را بگیر}} \left| \frac{x+1}{\sqrt{x-2}} \right| + 1 = g(x)$ (9)

$x + \left| \frac{x-1}{\sqrt{x-2}} \right| + 1 < 0 \Rightarrow \left| \frac{x-1}{\sqrt{x-2}} \right| < -x-1 \Rightarrow x$ باید کوچکتر از -1 باشد.

$x < -1$ جواب قدر مطلق ضابطه است

$\frac{x-1}{\sqrt{x-2}} < -x-1 \Rightarrow x-1 < -\sqrt{x-2} + x+2 \Rightarrow \sqrt{x-2} < 0$

$\Rightarrow x = (-\sqrt{2}, \sqrt{2})$

$\frac{x-1}{\sqrt{x-2}} < -1-x \Rightarrow \frac{x-1}{\sqrt{x-2}} + (1+x) < 0$

$\frac{x-1}{\sqrt{x-2}} < 0$ $\frac{-\sqrt{2}}{-} \quad \frac{\sqrt{2}}{+} \quad \frac{\sqrt{2}}{+}$ $\xrightarrow{x < -1} x < -\sqrt{2}$

$$f(x) = (x+1)^p \Rightarrow g(x) = \sqrt{p \wedge f(x) - f'(x)}$$

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$$\Rightarrow p \wedge f(x) \geq f'(x) \xrightarrow{\text{with } 0 \leq x} p \wedge x \geq f(x) \Rightarrow p \wedge x \geq x^p + 1 + \frac{p}{2} x^p + \frac{p}{2} x$$

$$\Rightarrow x^p - p \wedge x + \frac{p}{2} x^p + 1 \leq 0$$

$$f(n) = k(n-p)^p + p \xrightarrow{(\cdot)} k = \frac{pV}{\Lambda} \rightarrow f(n) = \frac{pV}{\Lambda} (n-p)^p + p$$

$$0 \leq f(n) \leq u \rightarrow \begin{matrix} f(n) < 0 \rightarrow n < 0 \\ f(n) = u \rightarrow n = \frac{\Lambda}{c} \end{matrix} \rightarrow 0 \leq n \leq \frac{\Lambda}{c} \quad \text{geo. r. p.}$$