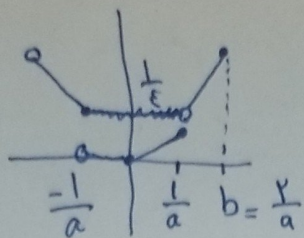


9



$$y = \frac{x}{a} [ax]$$

1/8

$$\frac{-1}{a} [ax \cdot \frac{-1}{a}] = \frac{+1}{\varepsilon} \rightarrow \frac{1}{a^2} = \frac{1}{\varepsilon} \rightarrow a = \sqrt{\varepsilon}$$

$$a = 2$$

$$b = 1$$

$$1 - 2 = -1$$

ا.ع. نقاد اقویہ دھاتی عکس حالت عادی مستند

10

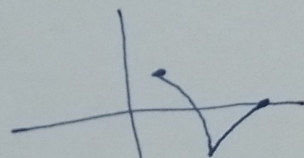
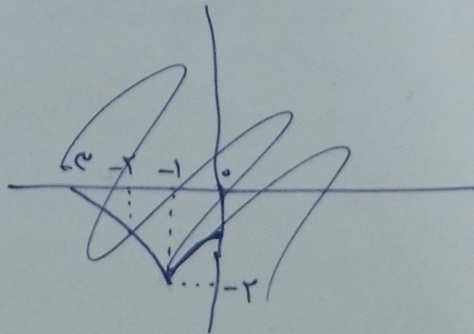
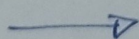
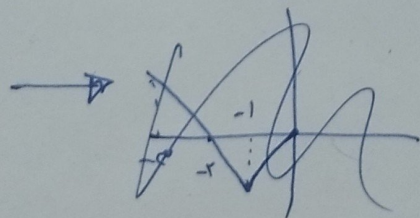
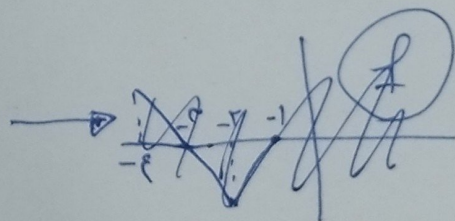
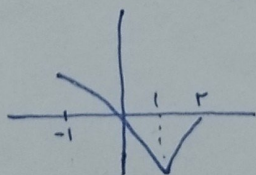
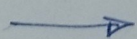
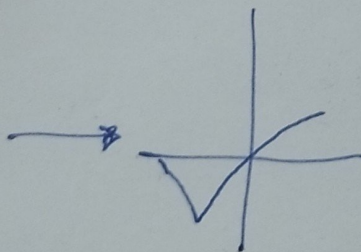
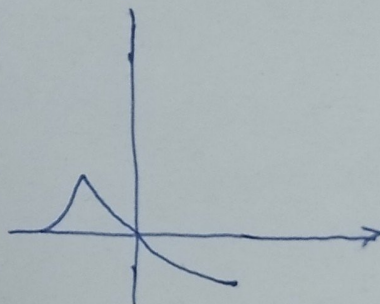
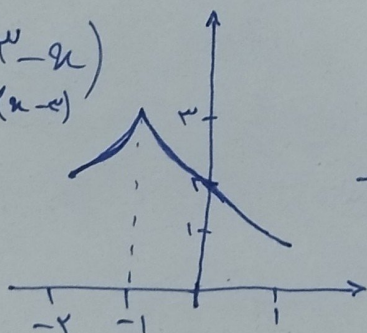
$$f(x) = \log_2 x \rightarrow \log_2^{x+2} \rightarrow -\log_2^{x+2} \rightarrow -\log_2^{x+2} + 3$$

$$\rightarrow -\log_2^{-x+2} + 3$$

$$\begin{cases} -14 \rightarrow -8 + 3 = -5 \\ -62 \rightarrow -6 + 3 = -3 \end{cases}$$

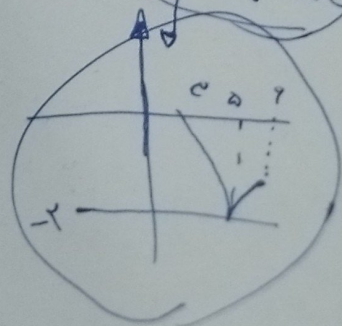
$$-5 + -1 = -6$$

$$y_1 = 2 - f(x-2)$$



1) واحد رست
2) واحد پایین

گستره یابی



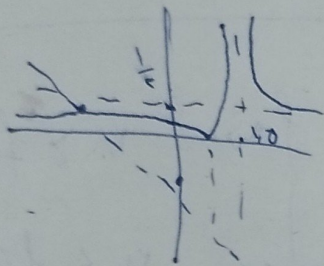
9

$$\left| \frac{x-1}{x^2-x} \right| + 1$$

فعلیہ

$$x+1 + \left| \frac{x-1}{x^2-x} \right| < 0 \rightarrow \left| \frac{x-1}{x^2-x} \right| < -x-1$$

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$$\frac{x-1}{x^2-x} = -x-1 \Rightarrow -x^2 + x + x - 1 = x-1$$

$$x = \pm \sqrt{2}$$

$$\Rightarrow (-\infty, -\sqrt{2})$$

$$-\sqrt{2} < x < \sqrt{2}$$

10

$$x f(x) > f'(x)$$

$$\left\{ \begin{array}{l} x > 0 \\ x < 0 \end{array} \right.$$

$$f(x) \leq \frac{1}{x}$$

$$f(x) \geq \frac{1}{x}$$

$$x \rightarrow 0, 1, 2$$

$$f(x) = K(x-1)^2 + 1 \xrightarrow{(\cdot)'} K < \frac{1}{x}$$

$$f(x) \leq 1 \rightarrow f(x) = 0 \rightarrow x = 0$$

$$f(x) > 1 \rightarrow x < \frac{1}{e} \rightarrow x \in [0, \frac{1}{e}]$$

مجموعہ

①

$$y = -\frac{1}{v}x^2 + \frac{2}{v}x + 1 \rightarrow -\frac{b}{2a} = \frac{2}{2(-\frac{1}{v})} = \frac{2}{-\frac{2}{v}} = -v$$

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معادله ی بر حسب x را بنویس

$$y = -\frac{1}{v}(x-v)^2 + 1 \xrightarrow{y=0} (x-v)^2 = \frac{1}{v} \rightarrow x-v = \pm \frac{1}{\sqrt{v}} \rightarrow x = v \pm \frac{1}{\sqrt{v}}$$

$$\frac{1}{\sqrt{v}}$$

$$\frac{1}{\sqrt{v}}$$

②

$$f(x) = \sqrt{x+1} \rightarrow (-1, \varepsilon) \xrightarrow{+1} (0, \varepsilon)$$

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$$\xrightarrow{\div 3} \left(-\frac{1}{3}, \varepsilon\right) \xrightarrow{\text{wavy}} \left(-\frac{1}{3}, \pi f\right) \xrightarrow{x-1} \left(-\frac{1}{3}, -1\right)$$

$$\cancel{-\frac{1}{3}x - 1 = -1} \quad -\frac{1}{3}x - 1 = -1 \quad \left(-\frac{1}{3}, -1\right)$$

$$y = 3 - \sqrt{2x+2} \rightarrow 3 - \sqrt{2x+2} \rightarrow -\sqrt{2x+2} = -6$$

$$\rightarrow \sqrt{2x+2} = 6 \rightarrow 2x+2 = 36 \rightarrow 2x = 34 \rightarrow x = 17$$

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$$x = \frac{1}{\varepsilon} \rightarrow n = \frac{1}{\lambda}$$

③

$$D_f = (a, \varepsilon] / D_g = [-1, b)$$

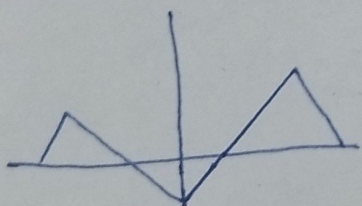
$$b-1 = a \rightarrow b = a+1$$

$$(a+1, a] \quad g(1+1) \quad [-2, b-1]$$

$$a+1 = -2 \rightarrow a = -3$$

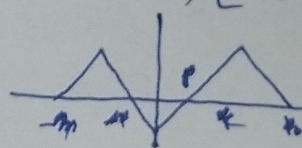
$$-3 - -2 = -1$$

④



$$D_f(a+r) = [-1, 2]$$

$$f\left(\frac{1}{r}(a+r)\right)$$



~~Graph~~

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$$D_f = [-1, 2] \rightarrow [-2, \varepsilon] \rightarrow [-8, 1] \rightarrow [0, 2] \rightarrow [0, \sqrt{2}]$$

$$[-\varepsilon, a] \times \frac{1}{\varepsilon} + 1 \quad \left[-\frac{1}{\varepsilon}, \frac{1}{\varepsilon}\right]$$

کدام صحیح است