

در این مسئله - فاصله
راست

سوال ۲

$$a = -\frac{1}{r} \quad \text{و} \quad (r, r)$$

$$y = -\frac{1}{r}(x-r)r + r \xrightarrow{y=0} (x-r)r = r$$

$$\begin{aligned} x-r &= 1 \rightarrow x=2 \\ x-r &=-1 \rightarrow x=0 \end{aligned}$$

و

$$\frac{1}{f} \quad \frac{1}{r}$$

سوال ۲

طولها ۲ - ۱ و ۲ - ۱

$$1 - r f(r+1) \quad 1 - r = -1 \propto \frac{1}{r} = \left[-\frac{1}{r} \right] \quad \left| \begin{array}{l} -\frac{1}{r} \\ -1 \end{array} \right.$$

عوض ها ۲ - ۱ و ۲ - ۱

$$r = -r + 1 \rightarrow \left[-\frac{1}{r} \right]$$

$$-\frac{1}{r} \propto -1 = \left[\frac{1}{r} \right]$$

$$y = r - \sqrt{rx} \xrightarrow{\text{مربع}} r - \sqrt{r(x+1)}$$

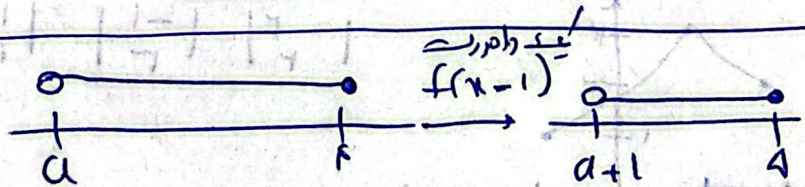
سوال ۳

$$\xrightarrow{\text{مربع}} -r + \sqrt{rx+1} \xrightarrow{\text{مربع}} \sqrt{rx+1} + r$$

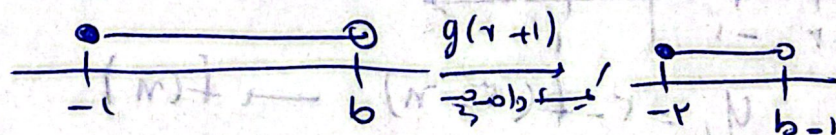
$$\sqrt{rx+1} + r = \frac{1}{r} \rightarrow \sqrt{rx+1} = \frac{1}{r} - r$$

$$rx+1 = \frac{1}{r^2} \rightarrow rx = \frac{1}{r^2} - 1 \rightarrow \left[x = \frac{1}{r^2} - 1 \right]$$

$$\mathcal{D}_f = (a, f)$$



$$\mathcal{D}_g = [-1, b)$$



$$(-1, 4)$$

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

$$a-b = -2-4 = -6$$

$$b-1 = 4 \rightarrow b = 5$$

$$y_1 = f\left(\frac{x}{r} + 1\right) \xrightarrow[\text{سبب } \times r]{\text{طرح ها } -1} \xrightarrow[\text{طرح ها } +1]{\text{سبب } \times \frac{1}{r}}$$

سوال 4

$$Df = [-r, r]$$

$$\begin{aligned} &\xrightarrow{\begin{matrix} -r \times \frac{1}{r} + 1 = -1 \\ r \times \frac{1}{r} + 1 = 2 \end{matrix}} Dg = \left[-\frac{1}{r}, \frac{2}{r}\right] \\ &\xrightarrow{\begin{matrix} -r \times \frac{1}{r} + 1 = -1 \\ r \times \frac{1}{r} + 1 = 2 \end{matrix}} \end{aligned}$$

$$R_f = [-1, r]$$

$$-1 \leq f(n) \leq r \rightarrow -r \leq r f(n) \leq r \rightarrow -r \leq r f(n) - r \leq 1$$

$$|1 \leq |r f(n) - r| \leq r \rightarrow R_{g_r} = [1, r]$$

$$f\left(-\frac{1}{a}\right) = \frac{1}{f} \rightarrow \frac{-1}{a^r} [-1] = \frac{1}{f} \rightarrow ar = r \quad (4b)$$

$$b = 1 \quad \boxed{b - a = r}$$

$$a \neq r$$

$$f(n) \rightarrow \log_r x \rightarrow \log_r x + r \rightarrow -\log_r x + r$$

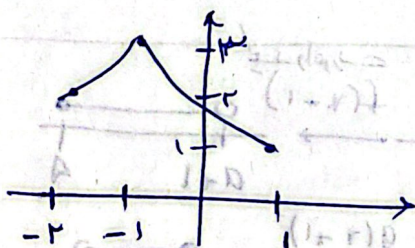
سوال 5

$$-\log_r x + r \rightarrow -\log_r x + r$$

$$g(n) = -\log_r x + r \rightarrow g(-1) \rightarrow -\log_r 1 + r = (-1)$$

$$g(-r) \rightarrow -\log_r r + r = (-r)$$

$$a + b = -1 - r = (-r)$$

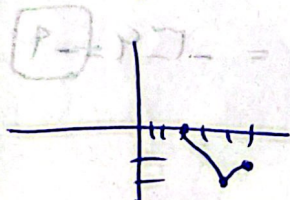


$$| -r | \quad | -1 | \quad | 1 |$$

سوال 6

$$y_1 = r - f(r - n) \rightarrow f(n)$$

$$\begin{aligned} &\text{طرح ها } -1 \text{ سبب } \times -1 \\ &\text{طرح ها } +1 \text{ سبب } \times -1 \\ &\text{طرح ها } -1 \text{ سبب } \times -1 \end{aligned}$$



$$| -r | \quad | -1 | \quad | 1 |$$

$$f(n-1) - 1$$

$$\begin{aligned} &\text{طرح ها } +1 \text{ سبب } \times -1 \\ &\text{طرح ها } -1 \text{ سبب } \times -1 \end{aligned}$$

$$f(x) = \left| \frac{x+1}{x-1} \right| - \left| \frac{(x-1)+1}{x(x-1)+1} \right|$$

9/10

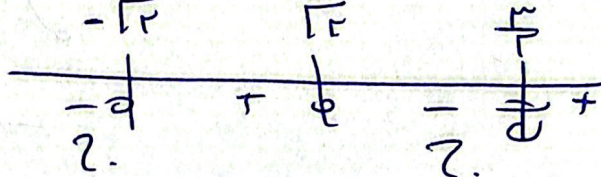
$$\left| \frac{x-1}{x-1} \right| + 1 + x < 0$$

+x

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

$$\frac{x^2 - 1}{x-1} \rightarrow x^2 = 1 \rightarrow x = \pm 1$$

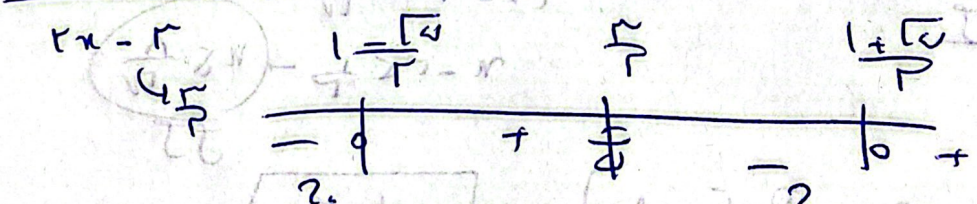
$$x = \frac{1}{x}$$



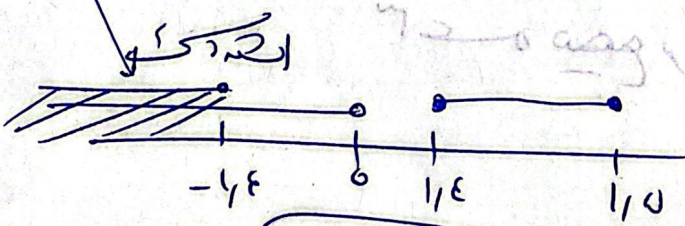
①

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

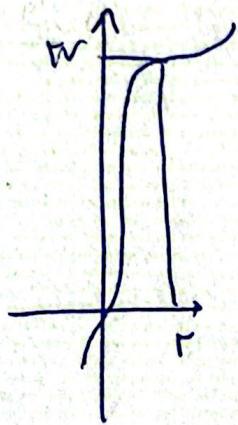
$$\frac{-x^2 - 1}{x-1} < 0 \rightarrow x^2 - x - 1 = 0 \rightarrow x = \frac{1 \pm \sqrt{5}}{2}$$



اب سے کہیں بائیں



$$x < -1$$



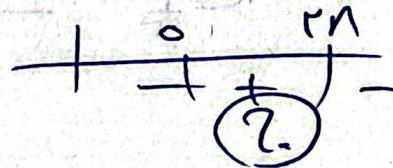
1.1b

$$a(x-r)^r + rv \xrightarrow{(\infty)} a(-r)^r + rv =$$

$$\Delta a = rv \rightarrow a = \frac{rv}{\Delta}$$

$$f(x) = \frac{rv}{\Delta} (x-r)^r + rv$$

$$\sqrt{r \Delta f(x) - f(x)^2} \rightarrow \dots f(x) (r \Delta - f(x))$$



$$0 \leq \frac{rv}{\Delta} (x-r)^r + rv \leq r \Delta$$

$x > r$

I

$$(x-r)^r \leq \frac{\Delta}{rv}$$

$$x-r \leq \sqrt[r]{\frac{\Delta}{rv}}$$

$x \leq \frac{\Delta}{rv}$

$$I \Delta I \rightarrow \text{Dg} = \frac{\Delta}{rv} \rightarrow \boxed{\frac{\Delta}{rv}}$$

مع راجه

$$\boxed{r > \frac{\Delta}{rv}}$$