

نام و نام خانوادگی: اسیر حسینی خاشعی یاسفنامه تشریحی تکلیف شماره ۷... کلاس: دوازدهم پسر A....

$$Df(x) = [-2, 2] \rightarrow -2 \leq x \leq 2$$

$$Df\left(\frac{3x+5}{5}\right) = [-2, 2] \rightarrow -2 \leq \frac{3x+5}{5} \leq 2 \rightarrow -10 \leq 3x+5 \leq 10$$

$$-12 \leq 3x \leq 18 \rightarrow \boxed{-4 \leq x \leq 6} \rightarrow \text{جواب}$$

(۲)

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$$-2 \leq x \leq 2 \rightarrow -8 \leq 3x - 2 \leq 2 \Rightarrow \text{شکل تابعها برابرند}$$

$$f(x) \rightarrow \boxed{-8 \leq x \leq 2} \rightarrow \text{جواب}$$

(۲)

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$$-1 \leq x \leq 3 \rightarrow \boxed{-3 \leq 3x \leq 9} \rightarrow \boxed{-2 \leq 3x+1 \leq 10} \rightarrow \boxed{-1 \leq \frac{3x+1}{2} \leq 5}$$

صفحه آخر

(۱/۵)

$$-2 \leq 2 - 5x \leq 0 \rightarrow -4 \leq -5x \leq 2$$

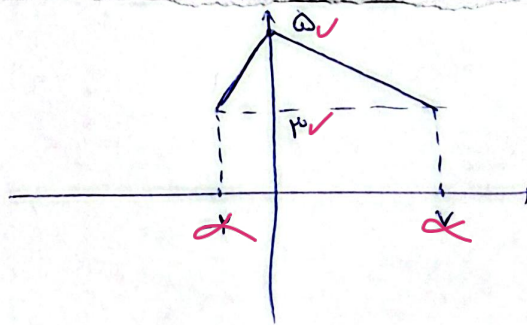
$$\left. \begin{array}{l} -4 \leq -5x \rightarrow 4 \geq 5x \rightarrow x \leq \frac{4}{5} \\ -5x \leq 2 \rightarrow 5x \geq -2 \rightarrow x \geq -\frac{2}{5} \end{array} \right\} \cap \rightarrow \boxed{\left(-\frac{2}{5}, \frac{4}{5}\right]} \rightarrow \text{جواب}$$

$$-1 \leq x \leq 2 \rightarrow -2 \leq 3x+1 \leq 7$$

صفحه آخر

(۱)

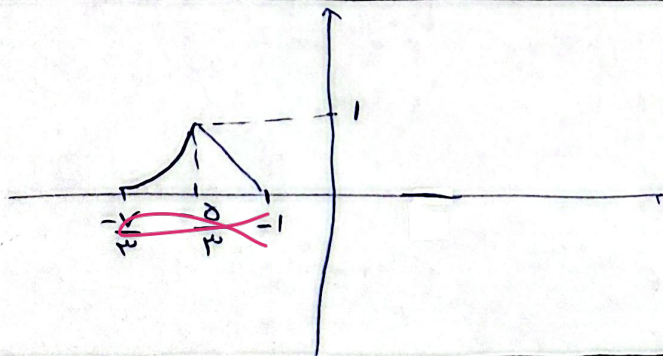
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$$\frac{1}{2} f(2-3x)$$

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

تفاوت  $\frac{1}{2}$  ها  $x$  است  $\leftarrow$  قیاس نسبت به  
مقدار  $\frac{1}{2}$  ها  $\leftarrow$   $y$  ها برابر



صفحه آخر

(۱/۵)

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$$y = -\frac{1}{3}x^2 + \frac{5}{3}x + 1 \xrightarrow{\text{راسی (سی) جیب (۱, ۳)}} y' = -\frac{1}{3}(x-2)^2 + 3 \xrightarrow{\text{راسی (سی) جیب (۱, ۳)}}$$

$$-\frac{1}{3}(x-2)^2 + 3 = 0 \rightarrow (x-2)^2 = 9 \rightarrow x-2 = \pm 3 \rightarrow x = 7, +1$$

فقط! جواب

$$(1, 2) \rightarrow f(x) \text{ دایره (سی) هست} \rightarrow f(1) = 2$$

$$-2f\left(\frac{3x+1}{4}\right) + 1 \rightarrow -2f(1) + 1 = -2 + 1 = -1$$

$$3x+1 = 1 \rightarrow x = \frac{-1}{3}$$

راسی (سی) جیب

$$\left(-\frac{1}{3}, -1\right)$$

(α, β)

$$\alpha \cdot \beta = -\frac{1}{3} \times -1 = \frac{1}{3} \rightarrow \text{جواب}$$

$$\begin{aligned} Df = (a, 2] &\rightarrow a < x-1 \leq 2 \rightarrow a+1 < x \leq 3 \rightarrow (a+1, 3] \\ Dg = [-1, b) &\rightarrow -1 \leq x+1 < b \rightarrow -2 \leq x < b-1 \rightarrow [-2, b-1) \end{aligned} \left\{ \begin{array}{l} a+1 = -2 \\ b-1 = 3 \end{array} \right.$$

$$a = -3$$

$$b = 4$$

$$-3 - 4 = -7 \rightarrow \text{جواب}$$

$$-3 \leq x \leq 0 \rightarrow -\frac{1}{2} \leq \frac{x}{2} + 1 \leq \frac{5}{2} \rightarrow \text{شماره بابیه} \Rightarrow Dg_r = \left[-\frac{1}{2}, \frac{5}{2}\right]$$

$$-1 \leq f(x) \leq 2 \rightarrow -5 \leq 2f(x) - 3 \leq 1 \rightarrow |2f(x) - 3| \in [0, 5]$$

$$\sqrt{|2f(x) - 3|} \in [0, \sqrt{5}] \rightarrow Rg_r = [0, \sqrt{5}]$$

$$f(x) = \left|\frac{x+1}{2x-3}\right| \rightarrow g(x) = \left|\frac{x-1}{2x-3}\right| + 1 \rightarrow x + \left|\frac{x-1}{2x-3}\right| + 1 < 0$$

$$\left|\frac{x-1}{2x-3}\right| < -x-1 \rightarrow -x-1 > 0 \rightarrow x < -1$$

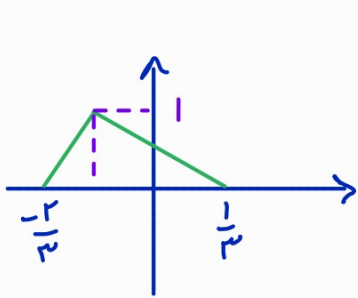
$$\text{توازن} \left\{ \left(\frac{x-1}{2x-3}\right)^2 < (x+1)^2 \rightarrow (x-1)^2 < (x+1)^2 (2x-3)^2 \rightarrow (x+1)^2 (2x-3)^2 - (x-1)^2 > 0 \right.$$

$$\text{منخرج} \rightarrow \varepsilon(x^2 - 2)(x^2 - x - 1) > 0 \rightarrow x = \pm\sqrt{2}, \frac{1 \pm \sqrt{5}}{2} \xrightarrow{x < -1} -\sqrt{2}$$

$$\text{جواب} \rightarrow (-\infty, -\sqrt{2}) \cup x < -\sqrt{2}$$

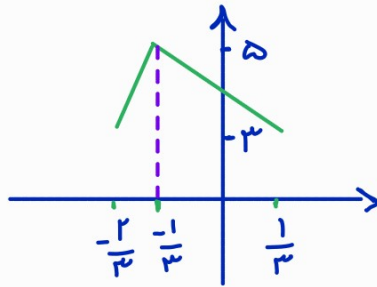
$$D_g = [-1, r] \rightarrow -1 \leq n \leq r \rightarrow -1 \leq \frac{r_{n+1}}{r} < \Delta \Rightarrow D_f = [-1, \Delta) \quad -r$$

$$-1 \leq r - \Delta n < \Delta \rightarrow -\frac{r}{\Delta} < n \leq \frac{r}{\Delta} \Rightarrow D_{f(r-\Delta n)} = \left(-\frac{r}{\Delta}, \frac{r}{\Delta}\right]$$



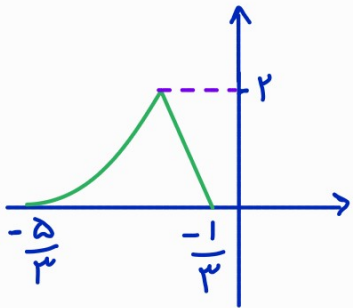
$$y = f(r_{n+1})$$

→



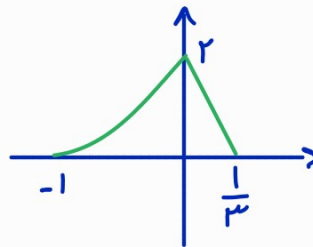
$$y = rf(r_{n+1}) + r$$

-r



$$y = f(-r_n)$$

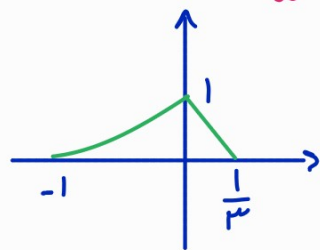
→ واحد به راست



$$y = f\left(-r\left(n - \frac{r}{r}\right)\right)$$

$$y = f(r - r_n)$$

→



$$y = \frac{1}{r} f(r - r_n)$$

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