

نام و نام خانوادگی: زهرا سادات حسینی یادداشت: تاریخ: ۵/۵/۱۳۹۷ کلاس: دوازدهم ریاضی A

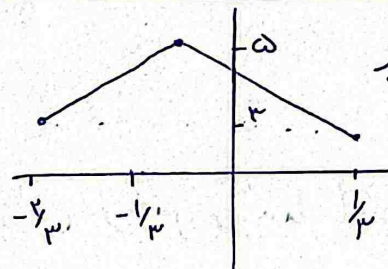
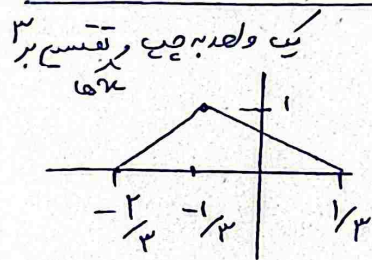
$$f\left(\frac{1}{5}x + \frac{1}{5}\right) \rightarrow -\frac{1}{5} \leq \frac{1}{5}x + \frac{1}{5} \leq \frac{1}{5} \rightarrow -10 \leq x + 1 \leq 1 \rightarrow -11 \leq x \leq 0$$

$$D = [-11, 0]$$

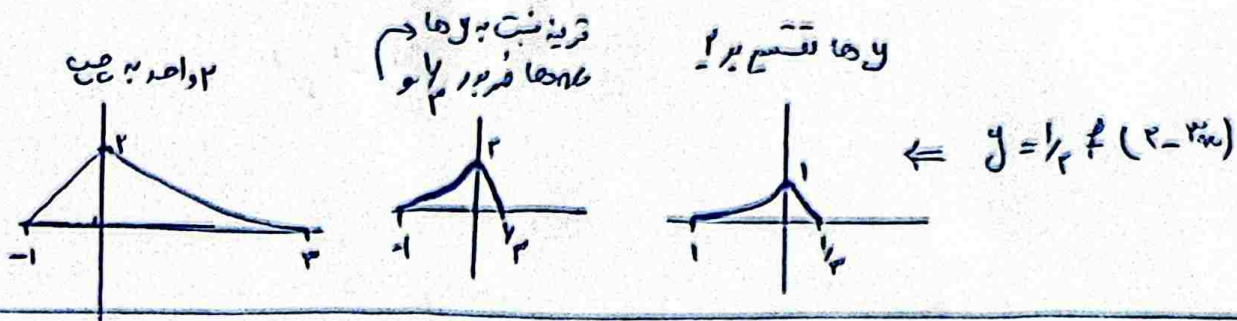
$$x = [-2, 3] \xrightarrow{\text{جایگزینی}} \begin{cases} 3(-2) - 2 = -8 \\ 3(3) - 2 = 7 \end{cases} \Rightarrow D_f = [-8, 7]$$

$$x = [-1, 2] \xrightarrow{\text{جایگزینی}} \begin{cases} \frac{3(-1) + 1}{2} = -1 \\ \frac{3(2) + 1}{2} = 5 \end{cases} \Rightarrow D_{f \circ g} = [-1, 5]$$

$$-1 \leq 2 - 5x \leq 0 \rightarrow -3 \leq -5x \leq 3 \rightarrow -\frac{3}{5} \leq x \leq \frac{3}{5}$$



ی ها را در برابر
دست 3 دله دای



رأس نمودار اولی $= (x_0, y_0) \rightarrow \begin{cases} -b/m = \frac{-y_0}{-x_0} = \frac{3}{5} \\ y = -\frac{1}{3}(x_0)^2 + \frac{1}{5}(x_0) + 1 = \frac{28}{15} \end{cases}$

$a(x_s - x_s)^2 + y_s$

$-\frac{1}{3}(x - 4)^2 + 2 = (x - 4)^2 = 9 \rightarrow \begin{cases} x - 4 = 3 \rightarrow x = 7 \\ x - 4 = -3 \rightarrow x = 1 \end{cases}$

رأس نمودار دومی $= (1, 4) \rightarrow \frac{x_s - 2}{3} = \alpha \rightsquigarrow \frac{1 - 2}{3} = -\frac{1}{3} = \alpha$

$\hookrightarrow (y_s x(-2)) + 1 = \beta \rightsquigarrow (-2)(4) + 1 = -7 = \beta$

$\alpha \beta = (-\frac{1}{3})(-7) = \frac{7}{3}$

$D_f = (a, c] \xrightarrow{\text{یک واحد به راست}} (a+1, c]$

$D_g = [-1, b) \xrightarrow{\text{یک واحد به چپ}} [-2, b-1)$

$\left. \begin{array}{l} \text{اگر } a = -2 \\ \text{پس } b = 1 \end{array} \right\} \begin{array}{l} \alpha + 1 = -2 \rightarrow \alpha = -3 \\ b - 1 = c \rightarrow b = c \end{array} \Rightarrow \begin{array}{l} \alpha - b \\ -3 - 1 = -4 \end{array}$

$x = [-3, 5] \xrightarrow{\text{یک واحد به چپ}} [-\frac{3}{2} + 1, \frac{5}{2} + 1] \rightarrow D_{f \circ g} = [-1, 3] / R_{f \circ g} = [-1, 2]$

$|2f(x) - 3| < 0 \xrightarrow{\text{همواره برقرار است}} D_f = \mathbb{R} / R = [1, \sqrt{5}]$

$\begin{cases} y_r = \sqrt{|x(-1) - 3|} = \sqrt{5} \\ y_r = \sqrt{|x(2) - 3|} = 1 \end{cases}$

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

$x+1 < \frac{x-1}{2x-3} < -x-1$

① $\frac{x-1}{2x-3} + x+1 < 0 \rightarrow \frac{x-1 + 2x^2 + 2x - 3x - 3}{2x-3} < 0$

② $\frac{x-1}{2x-3} - x-1 > 0 \rightarrow \frac{x-1 - 2x^2 - 2x + 3x + 3}{2x-3} > 0$

③ $\frac{x-1 + 2x^2 + 2x - 3x - 3}{2x-3} < 0$

④ $\frac{x-1 - 2x^2 - 2x + 3x + 3}{2x-3} > 0$

⑤ $\frac{-\sqrt{2} \sqrt{2} \frac{1}{2}}{-\frac{1}{2} + \frac{1}{2} - \frac{1}{2} + \frac{1}{2}}$

⑥ $\frac{1-\sqrt{5}}{2} \quad \frac{1+\sqrt{5}}{2}$

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