

$$D_f : [-2, 4]$$

$$D_f\left(\frac{3n+2}{5}\right) : \begin{aligned} -2 &\leq \frac{3n+2}{5} \leq 4 \\ -10 &\leq 3n+2 \leq 20 \\ -\frac{12}{3} &\leq n \leq \frac{18}{3} \Rightarrow D : [-4, 6] \end{aligned}$$

$$D_f(3n-2) : [-2, 3] \quad D_f : ?$$

$$\begin{aligned} 3(-1) - 2 &= -5 \\ 3 \times 3 - 2 &= 7 \end{aligned} \Rightarrow D_f : [-5, 7]$$

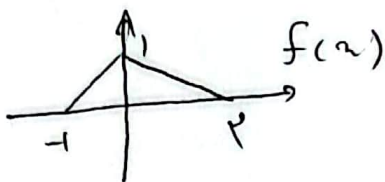
صفحه آخر

$$D_f\left(\frac{3n+1}{2}\right) : [-1, 3]$$

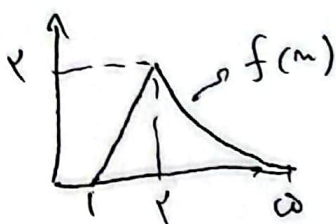
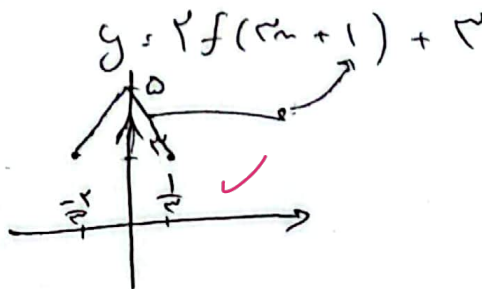
$$D_f(2-5n) : ? \left(-\frac{3}{5}, \frac{3}{5}\right)$$

$$D_f : \left[\frac{3(-1)+1}{2}, \frac{3 \times 3 + 1}{2} \right) = \left[-1, \frac{10}{2} \right) = [-1, 5)$$

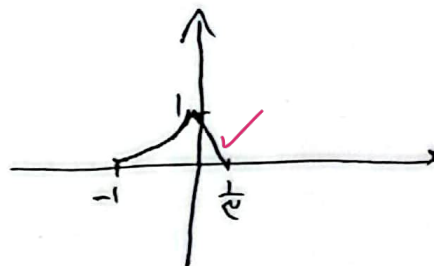
$$\begin{aligned} -1 &\leq 2-5n < 5 \\ -3 &\leq -5n < 3 \\ -\frac{3}{5} &\leq n < \frac{3}{5} \end{aligned}$$



$$\begin{aligned} -1 &\leq 3n+1 \leq 2 \\ -2 &\leq 3n \leq 1 \\ -\frac{2}{3} &\leq n \leq \frac{1}{3} \end{aligned}$$



$$\begin{aligned} 1 &\leq 2-5n \leq 5 \\ -1 &\leq -5n \leq 3 \\ -1 &\leq n \leq \frac{3}{5} \end{aligned}$$



$$-\frac{1}{2}t^2 + \frac{1}{2}t + 1 = -\frac{5v}{20}$$

$$-\frac{1}{2}t^2 + \frac{1}{2}t + 1 = -\frac{5v}{20}$$

$$y = -\frac{1}{2}m^2 + \frac{1}{2}m + 1$$

$$-\frac{1}{2}t^2 + \frac{1}{2}t + 1 = -\frac{5v}{20}$$

$$E = \frac{9}{20} \frac{v}{20}$$

$$\frac{-\frac{1}{2}}{-\frac{1}{2}} = t \frac{1}{2}$$

$$-\frac{1}{2}(\frac{9}{20}) + \frac{1}{2} + 1 = \frac{5v}{20}$$

مستقيم

$$f + h = \frac{1}{2} \quad h = \frac{1}{2} - f$$

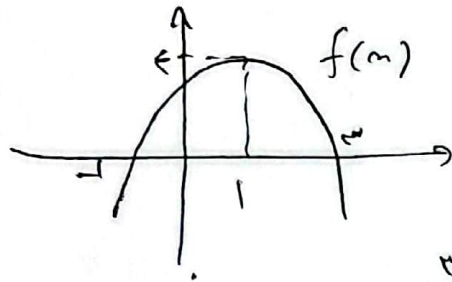
$$(-\frac{1}{2}, \frac{1}{2})$$

$$f(x) = \frac{1}{2}x^2 - \frac{1}{2}x + 1$$

$$f(x) = \frac{1}{2}x^2 - \frac{1}{2}x + 1$$

0

6



f(m) و 1/2

$$-(5v/20) + 1 = -v$$

$$-\frac{1}{2} \quad \text{و}$$

$$1 - 2f(m+1)$$

$$m+1 = 1 \quad \frac{1}{2} = m$$

$$-\frac{1}{2} \times -v = \frac{v}{2} = \alpha p$$

(2)

v

$$D_f : (a, c]$$

$$D_g : [-1, b)$$

$$D_g = f(m+1) + g(m+1)$$

$$a-b, ?$$

$$-c - a = -g = a-b$$

$$(-1, 0) \text{ و } 1$$

(2)

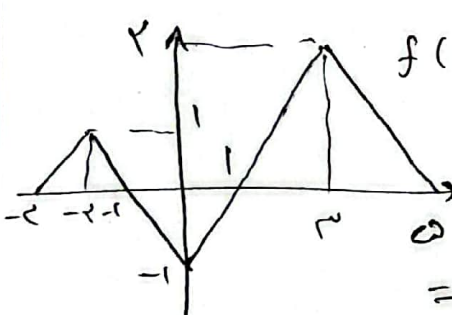
1

$$D_{f(m)} : (a+1, d]$$

$$D_{p+h} = (-1, d) : D_p \cap D_h$$

$$D_{g(m+1)} : [-1, b-1)$$

$$\Rightarrow b-1 \leq d \quad a+1 \leq -1$$



f(x/2 + 1)

$$y = \sqrt{|2f(x) - 3|}$$

$$D_y : [-\frac{1}{2}, \frac{1}{2}]$$

$$R_y : [0, \frac{1}{2}]$$

$$\frac{3}{2} + 1 = \frac{5}{2} \quad \frac{3}{2} + 1 = \frac{5}{2} \quad -1 \leq f(x) \leq 2 \quad -1 \leq 2f(x) - 3 \leq 1$$

(2)

9

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

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

$$\frac{x-1+1}{x(x-1)+1}$$

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

$$\frac{x-1-1}{x(x-1)+1}$$

$$(-\infty, -\sqrt{2}] \cup (1, \frac{1}{\sqrt{2}})$$

مستقيم

(1,5)

10

$$D_g = [-2, 3] \rightarrow -2 \leq u \leq 3 \rightarrow -1 \leq 3u - 2 \leq 7 \Rightarrow D_f = [-1, 7] \quad -2$$

$$\text{رأس: } (h, k) \xrightarrow{\text{معادله خط}} y = a(n-h)^2 + k = -\frac{1}{3}n^2 + \frac{2}{3}n + 1 \rightarrow a = -\frac{1}{3} \quad -9$$

$$\text{رأس: } (4, 3) \rightarrow y = -\frac{1}{3}(n-4)^2 + 3 \xrightarrow{y=0} -\frac{1}{3}(n-4)^2 = -3 \rightarrow \begin{cases} n=7 \\ n=1 \end{cases}$$

$$g(n) = \left| \frac{(n-2)+1}{2(n-2)+1} \right| + 1 = \left| \frac{n-1}{2n-3} \right| + 1 \quad -10$$

$$n + g(n) < 0 \rightarrow \left| \frac{n-1}{2n-3} \right| < -1-n \rightarrow \begin{cases} \text{از یه قدر مطلق بزرگتر شده پس باید مثبت باشد:} \\ -1-n > 0 \rightarrow n < -1 \end{cases}$$

$$\xrightarrow{n < -1} \xrightarrow{\text{قدر مطلق مثبت}} \frac{n-1}{2n-3} < -1-n \rightarrow \frac{2n^2-4}{2n-3} < 0 \rightarrow \frac{2(n-\sqrt{2})(n+\sqrt{2})}{2n-3} < 0$$

$$\begin{array}{c} -\sqrt{2} \quad \sqrt{2} \quad \frac{3}{2} \\ - \quad + \quad - \quad + \end{array} \quad \xrightarrow{n < -1} n < -\sqrt{2} \rightarrow (-\infty, -\sqrt{2})$$