

۱۹,۷۵

$$-2 \leq x \leq 4$$

$$-4 \leq 3x+2 \leq 14$$

$$-\frac{4}{3} \leq \frac{3x+2}{3} \leq \frac{14}{3}$$

$$D_f = \left[-\frac{4}{3}, \frac{14}{3} \right]$$

صفحه آخر

$$f(3x-2) \begin{cases} x=-1 \rightarrow f(-1) \\ x=7 \rightarrow f(7) \end{cases}$$

$$[-2, 3]$$

$$D_f = [-1, 7]$$

$$f\left(\frac{3x+1}{2}\right) \begin{cases} x=-1 \rightarrow f(-1) \neq f(-1) = -1 \\ x=3 \rightarrow f(5) \end{cases}$$

$$D_{f(x)} = [0, 5)$$

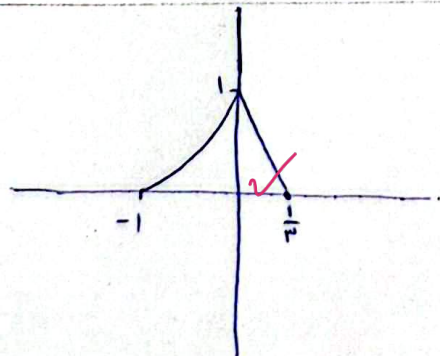
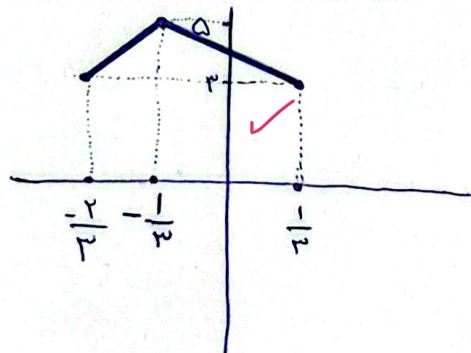
$$-1 \leq 2-5x < 5$$

$$-2 \leq -5x < 3$$

$$\frac{2}{5} \geq x > -\frac{3}{5}$$

$$D_{f(2-5x)} = \left[-\frac{3}{5}, \frac{2}{5} \right]$$

صفحه آخر



$$y = \left(-\frac{1}{x}\right)(x-4)^2 - 3$$

$$-\frac{1}{x}(x-4)^2 - 3 = 0$$

$$+(x-4)^2 = 9$$

$$|x-4| = 3$$

$$x = 7 \checkmark$$

$$3x + y = 1$$

$$\alpha = x = -\frac{1}{3} \checkmark$$

$$\alpha\beta = \left(-\frac{1}{3}\right)(-1) = \frac{1}{3} \checkmark$$

$$f(1) = 4$$

$$B = 1 - 2f(1) = -7 \checkmark$$

$$Dg_{(n+1)} = [-2, b-1]$$

$$Df_{(n+1)} = [a+1, 4]$$

$$a-b = -3-4 = -7 \checkmark$$

$$[-2, b-1] \cap (a+1, 4] = [-2, 4] \quad \begin{matrix} (-2, 4) \\ \uparrow \end{matrix}$$

$$b-1 = 4$$

$$b = 5 \checkmark$$

$$a+1 = -2$$

$$a = -3 \checkmark$$

$$R_{y_1} = [-1, 2]$$

$$\sqrt{|2(-1) - 3|} = \sqrt{5}$$

$$\sqrt{|2(1,5) - 3|} = 0$$

$$R_{y_1} = [0, \sqrt{5}]$$

دافنه

صفحه آخر

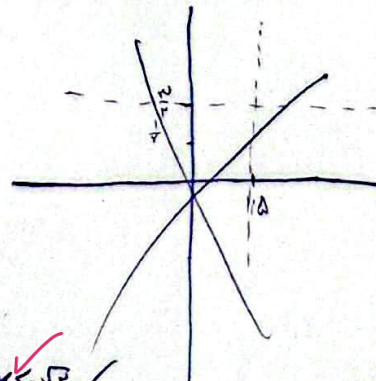
$$g(x) = \left| \frac{x-1}{2x-3} \right| + 1$$

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

$$\left| \frac{x-1}{2x-3} \right| < -(x+1) \Rightarrow x \leq -1$$

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

$$\frac{x-1}{2x-3} + x+1 < 0 \quad x < -\sqrt{2} \checkmark$$



-1

$$D_f = [-r, r] \rightarrow -r \leq \frac{r_n + r}{\Delta} \leq r \rightarrow -1 \leq r_n + r \leq r_0 \rightarrow -r \leq n \leq 4$$

$$D_g = [-r, 4]$$

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

-r

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

$$D_{y_1} = [-r, \Delta] \rightarrow -r \leq n \leq \Delta \rightarrow -\frac{1}{r} \leq \frac{n}{r} + 1 \leq \frac{\Delta}{r} \Rightarrow D_f = \left[-\frac{1}{r}, \frac{\Delta}{r}\right]$$

-9

$$R_{y_1} = [-1, r] \rightarrow -1 \leq f \leq r \rightarrow -\Delta \leq rf - r \leq 1 \rightarrow 0 \leq |rf - r| \leq \Delta$$

$$0 \leq \sqrt{|rf - r|} \leq \sqrt{\Delta} \Rightarrow R_f = [0, \sqrt{\Delta}]$$