

Subject:

Year:

Month:

Day:

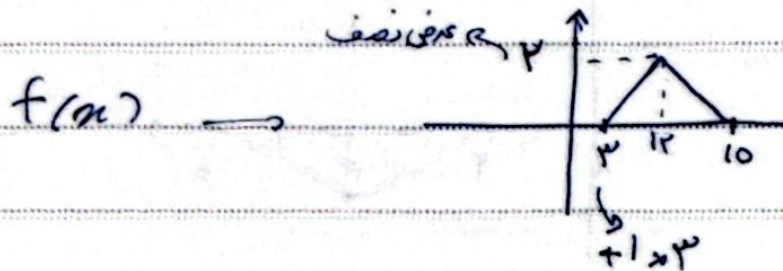
page: ()

$$g(x) = x - 2 + \sqrt{x-4} = x$$

$$\rightarrow \sqrt{x-4} = 2$$

$$x-4 = 4 \Rightarrow x = 8$$

چون نقاط برخورد با همسایه ربع اول فاصله
نیازی نیست نسبت به x یا قدرینه کنیم



$$S = \frac{12 \times 2}{2} = 12$$

$$\frac{x-a}{2} = 2 \Rightarrow x = a+4$$

$$y = a + 2f\left(\frac{y}{2}\right) \Rightarrow A'(a+4, a-4)$$

$$A' \rightarrow a-4 = 2(a+4) - 1 \Rightarrow a = -6$$

$y = 2x - 1$

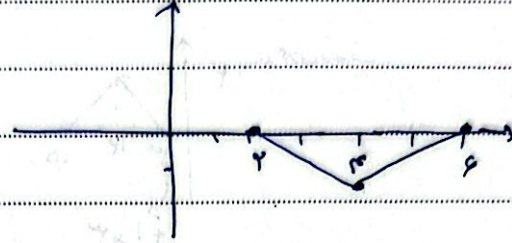
$$\begin{vmatrix} 0 & -1 \\ 0 & 0 \end{vmatrix} \rightarrow \begin{vmatrix} -1 & 1 \\ 0 & 0 \end{vmatrix} \rightarrow \begin{vmatrix} 1 & 0 \\ 0 & 0 \end{vmatrix}$$

$$x_1 = \frac{-1+1}{2}, x_2 = \frac{-1-1}{2}$$

$$y_1 = \frac{x(-1)+1}{2}, y_2 = \frac{x(-1)-1}{2}$$

$$\begin{vmatrix} 1 & 0 \\ 1 & 0 \end{vmatrix} \rightarrow \begin{vmatrix} 0 & 1 \\ -1 & 1 \end{vmatrix} \rightarrow \begin{vmatrix} 1 & 1 \\ -1 & 1 \end{vmatrix}$$

$$\begin{vmatrix} 1 & 0 \\ 0 & 0 \end{vmatrix} \rightarrow \begin{vmatrix} 1 & 1 \\ 0 & 0 \end{vmatrix} \rightarrow \begin{vmatrix} 1 & 1 \\ 0 & 0 \end{vmatrix}$$



$$-(x, y) f(3x-1) > 0$$

$$(x, y) (f(3x-1)) < 0$$

$$f(x) \rightarrow -1, 0, 1 \rightarrow 3x-1 = -1 \rightarrow x=0$$

$$3x-1 = 0 \rightarrow x = \frac{1}{3}$$

$$3x-1 = 1 \rightarrow x = \frac{2}{3}$$

$$\begin{matrix} -1 & 0 & 1 & 2 \\ + & - & + & - & + \end{matrix}$$

$$D = [-1, 0] \cup [1, 2]$$

$$f \circ g(x) \rightarrow 1 \rightarrow 2 \rightarrow 3$$

$$2 \rightarrow 3 \rightarrow 0$$

$$0 \rightarrow 1 \rightarrow x$$

$$\Rightarrow f \circ g(x) = \{(1, 2), (2, 0)\}$$

$$g \circ f(x) \rightarrow \begin{matrix} 1 \rightarrow 2 \rightarrow 3 \\ 2 \rightarrow 1 \rightarrow 0 \\ 3 \rightarrow 0 \rightarrow x \end{matrix} \rightarrow \{(1, 2), (2, 1)\}$$

$$f \circ g(x) \rightarrow \begin{matrix} 1 \rightarrow 2 \rightarrow 0 \\ 0 \rightarrow 1 \rightarrow 2 \\ 2 \rightarrow 0 \rightarrow 1 \end{matrix} \rightarrow \{(1, 0), (0, 2), (2, 1)\}$$

$$g \circ f - f \circ g = \{(1, 2)\} \text{ ? } \text{تعريف } f \text{ و } g \text{ و } x$$

$$f(-\sin^2 x) \xrightarrow{<0} 1 - x'$$

$$f(1 - \sin^2 x) \xrightarrow{>0} 1 - x' \rightarrow 1 - (1 - \sin^2 x) = \sin^2 x$$

$$x = y \rightarrow y f(y) = 1 \rightarrow f(y) = \frac{1}{y}$$

$$f(x) = \frac{1}{3x - 2} \Rightarrow f \circ f(x) = \frac{1}{3(3x - 2) - 2} = \frac{1}{9x - 8}$$

$$\text{limit} \rightarrow (-1)$$

$$f \circ g(x) \rightarrow \frac{1}{3(x^2 - 3x + 1) - 2} = \frac{1}{3x^2 - 9x + 1}$$

$$g \circ f(x) \rightarrow \frac{1}{3(x - 2)^2 - 2} = \frac{1}{3x^2 - 12x + 8}$$

$$f \circ g = g \circ f \rightarrow \frac{1}{3x^2 - 9x + 1} = \frac{1}{3x^2 - 12x + 8}$$

$$3x^2 - 9x + 1 = 0$$

$$\text{جواب} \rightarrow 5 - 2p \rightarrow 10^2 - 2(3p) = 9p$$