

Subject:

Year:

Month:

Date:

NOTE BOOK

پایسین نیزار ، دوازدهم رخترب ۱۹،۵ - تکلیف سئام ۲
آفرین کامل نوشتی!

$$f(n) = (10+m)n^2 + (n-5)n + (2+mn) \quad (1) \quad \text{تابع } f(n)=k$$

$$m = -10 \leftarrow 10+m=0 \quad n-5=0 \rightarrow n=5$$

$$f(n) = 2 + (-10 \times 5) = -48$$

$$g(n) = \{ (5, m)(n, p+1)(p+2, -9, p+k) \}$$

$$(\downarrow) \quad (\downarrow) \quad (\downarrow)$$

$$(5, -10)(5, p+1)$$

$$p+1 = -10 \rightarrow p = -11 \rightarrow (p+2, -1)(-9, k-11)$$

$$= (-9, -1)(-9, k-11)$$

$$k-11 = -1 \rightarrow k = 10$$

$$m+n+p+k = -10+5+(-11)+10 = -6$$

$$y = \sqrt{\frac{(x-2)}{(x^2-5)(x^2+2)}} \Rightarrow \frac{x-2}{(x+2)(x-2)(x^2+2)} \geq 0 \quad (2) \quad \text{الف}$$

$$(\Delta < 0) \quad \text{همواره}$$

$$-\frac{2}{x} + \frac{2}{x} +$$

$$D_f = (-2, +\infty) - \{2\} = (-2, 2) \cup (2, +\infty)$$

$$y = \frac{2x^2+1}{5-2[-x]} \Rightarrow 5-2[-x] \neq 0 \quad 2[-x] \neq 5$$

$$[-x] \neq 2.5 \quad -x \neq [2.5, \infty)$$

$$x \neq (-\infty, -2.5] \rightarrow D_f = \mathbb{R} - [-2.5, -2]$$

$$I \quad |x|+x > 0 \quad |x| > -x \rightarrow x = (0, +\infty) \quad \text{الف}$$

$$II \quad x(x+1)(x-1) > 0 \quad \frac{-1}{-x} + \frac{0}{x} - \frac{1}{x} \rightarrow x = [-1, 0] \cup [1, +\infty)$$

$$I \cap II \rightarrow D_f = [1, +\infty)$$

$$I \quad |x| \neq 1 \quad x \neq \{\pm 1\}$$

$$II \quad |x-2|-x^2 \geq 0$$

(۳) ب

$$\begin{cases} x \geq 2 \rightarrow x-2-x^2 \geq 0 & x^2-x+2 < 0 & \Delta < 0 & \emptyset \\ x < 2 & 2-x-x^2 \geq 0 & x^2+x-2 < 0 & (x+2)(x-1) < 0 \\ & \frac{-2}{+} \frac{1}{-} \frac{+}{+} & x = [-2, 1] \end{cases}$$

$$I \cap II \rightarrow [-2, 1] - \{-1\} = [-2, -1) \cup (-1, 1)$$

$$\neq [-2, 1] - \{-1\}$$

$$|x-2|-1-k \neq 0 \rightarrow |x-2|-1 \neq k \quad (۴)$$

$$|x-2|-1 \neq \pm k \rightarrow |x-2| \neq 1 \pm k$$

(۵) ا

$$x-2 \neq \pm (1 \pm k) \rightarrow x \neq 2 \pm (1 \pm k)$$

$$x \neq 3+k, \quad x \neq 3-k, \quad x \neq 1-k, \quad x \neq 1+k$$

دسته شامل عددهای صحیح نمی شود پس ۲ تا از این مقادیر باید از آن حذف شود

$$3+k = 3-k \rightarrow k=0 \quad k \neq -1 \quad \left. \begin{array}{l} 3+k = 1-k \rightarrow k=-1 \\ 1+k = 1-k \rightarrow k=0 \end{array} \right\} \Rightarrow k = \{0, \pm 1\}$$

$$3+k = 1-k \rightarrow k=-1$$

$$1+k = 1-k \rightarrow k=0$$

$$k \neq 0 \rightarrow |x-2|=1 \rightarrow x=3$$

جواب ۲



با رسم مثلثات و استفاده از جواب درست

۱- x=2

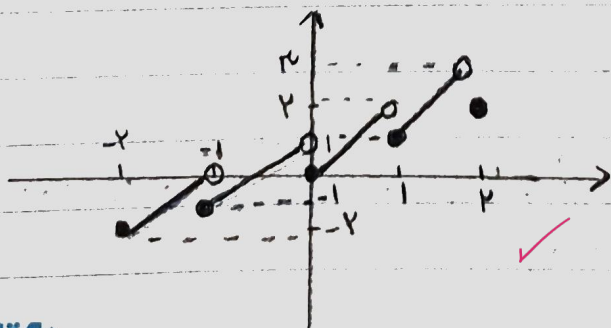
$$[-2, -1) \rightarrow y = 2x + 2$$

$$[-1, 0) \rightarrow 2x + 1$$

(۵) ب

$$[0, 1) \rightarrow 2x$$

$$[1, 2) \rightarrow 2x - 1 \quad \{2\} \rightarrow 2x - 2$$



۲x - [x] نمودار

$$\text{تابع هذی} \rightarrow y = x$$

$$f(x) = \frac{(x-2)(x-1)}{x+1} + b \quad (4)$$

مربعه متعلقه! من خواهر نباید بونی!

$$\begin{aligned} \text{I} \quad a = -2 &\Rightarrow b = +1 \rightarrow a-b = -3 \\ \text{II} \quad a = -1 &\Rightarrow b = +2 \rightarrow a-b = -3 \end{aligned} \quad \left. \begin{array}{l} (-3) + (-3) = -6 \\ (-3) + (-3) = -6 \end{array} \right\} \quad \text{X}$$

$$x \neq \pm 1 \quad f(x) = \frac{x^2 + 2x^2 - x - 2}{x^2 - 1} = \frac{(x-1)(x^2 + 2x + 2)}{(x-1)(x+1)} \quad (V)$$

$$= \frac{(x+1)(x+2)}{(x+1)} = x+2 = g(x) = x+C \Rightarrow C=2$$

$$\frac{ax+2}{x+b} = x+2 \quad x=1 \rightarrow \frac{a+2}{1+b} = 2 \Rightarrow a+2 = 2+2b \quad 2b-a = -1$$

$$x=-1 \quad \frac{-a+2}{-1+b} = 1 \rightarrow 2-a = b-1 \quad a+b = 2$$

$$\begin{cases} 2b-a = -1 \\ a+b = 2 \end{cases} \Rightarrow \begin{aligned} b &= 0.1 \\ a &= 1.9 \end{aligned} \quad b+C = 0.1+2=2.1$$

$$D_f = \left[\frac{2a}{\varepsilon}, +\infty \right) \quad D_g = \left(-\infty, \frac{b}{\varepsilon} \right] \quad (A)$$

$$D_f \cap D_g = \{1\}$$

$$\Rightarrow \frac{2a}{\varepsilon} = 1 \rightarrow a = \frac{\varepsilon}{2}, \quad \frac{b}{\varepsilon} = 1 \rightarrow b = \varepsilon$$

$$\begin{aligned} 2f(1) - g(1) &= 2\left(\sqrt{\varepsilon - 2\left(\frac{\varepsilon}{2}\right)} + k - 1\right) - \left(\sqrt{\varepsilon - \varepsilon} + 2k\right) \\ &= 2k - 2 - 2k = -2 = k \end{aligned}$$

$$2k = -2 \quad k = -1$$

$$2a - \frac{b}{\varepsilon} - k = 2\left(\frac{\varepsilon}{2}\right) - 2 - (-1) = \varepsilon - 2 + 1 = 2$$

$$Df = (-\infty, m] \quad Dg = [-1, +\infty)$$

$$Df \cap Dg = [-1, m] = [-1, v] \quad m = v$$

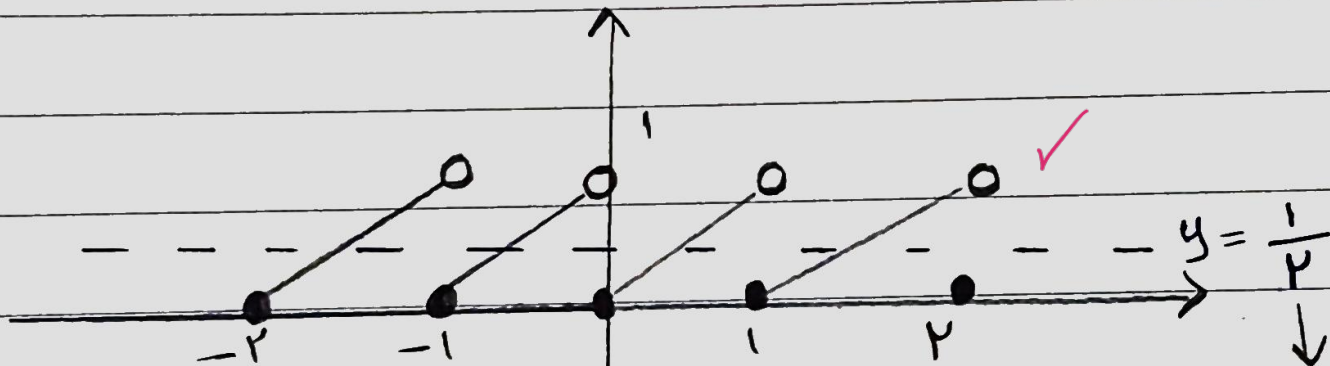
(9)

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

$$x + n - x\sqrt{x} = 4\sqrt{x} \Rightarrow n = 4\sqrt{x} - x$$

$$m + n = 4\sqrt{x} + \delta \quad \checkmark$$

$$y = (-1)^x (x - [x]) = \frac{1}{x} \Rightarrow x - [x] = \frac{1}{x} \quad (10)$$



۴ بر خورد دارد ← معادله ۷۴ جوابی