

19, 20

نام و نام خانوادگی کلاس پاسخنامه تشریحی تکلیف شماره کلاس روز و ماه و سال
 علی بیاضی

ضرایب x^2 و x صفر باشد تابع ثابت $\rightarrow f(x) = 1 \cdot x^2 - 4x + 2 + mx^2 + nx + mn$

$$\Rightarrow m = -1, n = 4 \Rightarrow mn = -4 \Rightarrow f(x) = -31$$

$$g(x) = \{ (f(m), (4, P+1)), (P+2, -1), (-9, P+K) \} \Rightarrow P+1 = -1 \Rightarrow P = -11$$

$$P+2 = -9 \Rightarrow P+K = -1 \Rightarrow K = 11-1 = 10 \Rightarrow m+n+P+K = (-1) + 4 + (-11) + 10 = 0$$

$$= \boxed{-V}$$

$$f(x) = g = \sqrt{\frac{x-2}{(x^2-4)(x^2+2)}} \Rightarrow \frac{x-2}{(x^2-4)(x^2+2)} \geq 0 \Rightarrow y \mid -\frac{2}{4} + \frac{1}{4} +$$

$$\Rightarrow D = [-2, 0] \cup [2, +\infty)$$

$$-2 < P-2[x] \neq 0 \Rightarrow 2[-x] = 4 \Rightarrow [-x] = 2 \Rightarrow 2 \leq -x < 3$$

$$-2 \geq x > -3 \Rightarrow D_f = \mathbb{R} - [-3, -2]$$

$$f(x) \text{ ① } x(x^2-1) \geq 0 \Rightarrow \frac{1}{x} \frac{1}{x^2-1} \Rightarrow [-1, 0] \cup [1, +\infty)$$

$$\text{② } |x| + x > 0 \Rightarrow \frac{1}{x} \Rightarrow x > 0 \Rightarrow \text{①} \cap \text{②} \Rightarrow D_f = [1, +\infty)$$

$$x \text{ ③ } |x-2| - x^2 \geq 0 \Rightarrow x-2 \geq x^2 \Rightarrow -x^2 - x + 2 \leq 0 \Rightarrow \emptyset \quad -2 \quad 1$$

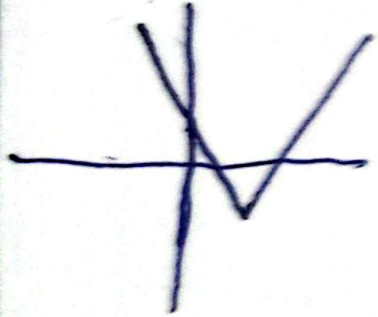
$$x-2 \leq -x^2 \Rightarrow x^2 + x - 2 \leq 0 \Rightarrow \frac{1}{x} \frac{1}{x+2} \Rightarrow [-2, 1]$$

$$\text{④ } |x|-1 \neq 0 \Rightarrow |x| \neq 1 \Rightarrow x \neq \pm 1 \Rightarrow \text{①} \cap \text{②} \Rightarrow D_f = [2, 1) \quad \uparrow \quad D_f = [-2, 1) - 1$$

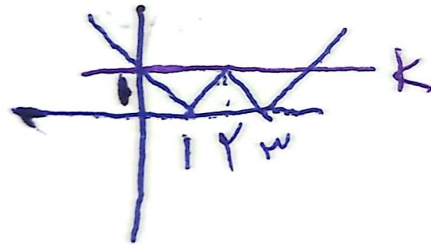
انتقال به واحد به راسته و یک واحد به چپ

$$|x-2|-1$$

$$|x-2|-1$$



$\Rightarrow$

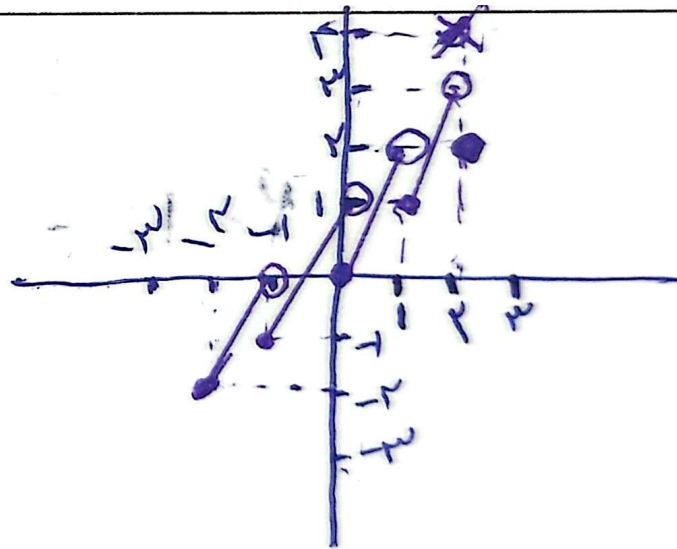


$$\Rightarrow y = k \text{ سه نقطه}$$

$$\Rightarrow k = 1$$

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$$\begin{aligned}
 [-29 -1] &= 2x + y \\
 [-199] &= 2x + 1 \\
 [091] &= 2x \\
 [104] &= 2x - 1 \\
 \{x\} &= 2x - 1
 \end{aligned}
 \quad \Rightarrow$$



$$f(x) = \frac{x^2 - 4x + 1}{x + a} + b = x \Rightarrow \frac{(x-1)(x-3)}{x+a} = x-b \Rightarrow$$

$$\textcircled{1} \underline{a = -1} \Rightarrow x-3 = x-b \Rightarrow \underline{b = 3} \Rightarrow a-b = -1-3 = \underline{-4}$$

$$\textcircled{2} \underline{a = -3} \Rightarrow x-1 = x-b \Rightarrow \underline{b = 1} \Rightarrow a-b = -3-1 = \underline{-4}$$

$$\textcircled{1} + \textcircled{2} = \underline{-4} \quad \text{البته می توان گفت چون به هر ۲ عدد ۳ و ۱ یک عدد است پس } \underline{-4}$$

$$f = g \Rightarrow \textcircled{1} \frac{x^3 + 2x^2 - x - 2}{x^2 - 1} = x + 2 \Rightarrow x + 2 = x + c \Rightarrow c = 2$$

$$\Rightarrow \textcircled{2} \begin{cases} x=1 \Rightarrow \frac{a+2}{b+1} = 3 \Rightarrow 3b-a = -1 \\ x=-1 \Rightarrow \frac{-a+2}{b-1} = 1 \Rightarrow b+a = 2 \end{cases} \Rightarrow \begin{cases} 3b-a = -1 \\ b+a = 2 \end{cases} \Rightarrow \begin{cases} 4b = 1 \Rightarrow b = \frac{1}{4} \\ a = \frac{7}{4} \end{cases}$$

$$b+c = \frac{1}{4} + 2 = \underline{\frac{9}{4}}$$

$$\cancel{f(x) = 2x+3} \Rightarrow f(x) \geq 3a \text{ و } b-f(x) \geq 0 \Rightarrow f(x) \leq b$$

$$\Rightarrow b = f \text{ و } \Rightarrow 3a = f \Rightarrow a = \frac{f}{3} \quad (D(f-g) \text{ را بدید})$$

$$g(x) = \sqrt{f-fx} + 2k \text{ و } f(x) = \sqrt{fx-f} + k-1$$

$$f-g(1) = 2k-1-3k = -k-2 = k \Rightarrow 2k = -2 \Rightarrow k = \underline{-1}$$

$$3a - \frac{f}{3} - 1 = f - \frac{f}{3} - (-1) = f - \frac{f}{3} + 1 = 3 \Rightarrow f = 2$$

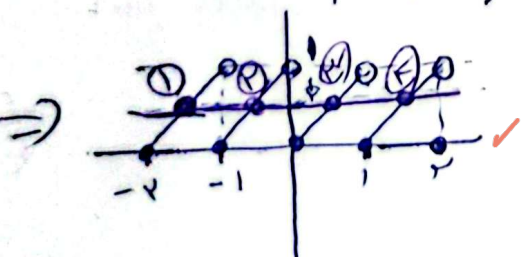
$$Df \cap Dg = [-1, 9] \Rightarrow Dg \Rightarrow 2x+2 \geq 0 \Rightarrow x \geq -1$$

$$\Rightarrow f \text{ در } \mathbb{R} \Rightarrow \text{در } \mathbb{R} \Rightarrow Df = (-\infty, 9] \Rightarrow m-x \geq 0 \Rightarrow x \leq m$$

$$= \overline{x(m-1)} \quad f-g(2) = 4\sqrt{2} \Rightarrow 4+n-\sqrt{2} = 2+n-2\sqrt{2} = 4\sqrt{2}$$

$$2+n = 4\sqrt{2} \Rightarrow n = 4\sqrt{2}-2 \Rightarrow m+n = 4\sqrt{2}-2+9 = 4\sqrt{2}+7$$

$$y = 1 \times (x - [x]) = \frac{1}{2} \Rightarrow x - [x] = \frac{1}{2}$$



مجموعه جواب