

۲۰ آفرین!

$$x^2 + 2x + 1 + 9x^2 - 4x + 1 \quad g(x) = \left\{ (x, -1), (x, p+1), (-4, -1), (-9, p+k) \right\}$$

$$10x^2 - 2x + 2$$

$$m = -1, n = 2$$

$$p = -11$$

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

$$m + n + p + k \rightarrow -1 + 2 - 11 + 10 = -V \quad \checkmark$$

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الف) $y = \sqrt{\frac{x-2}{x^2-2x-1}}$ $D_f = (-2, +\infty) - \{2\}$

ب) $\frac{2x^2 + 1}{x-2[-x]}$

$$\frac{x-2}{x^2-2x-1} \geq 0 \quad \frac{-2}{-1} + \frac{2}{1} +$$

$$x-2[-x] \neq 0 \rightarrow x \neq 2[-x]$$

$$\rightarrow x^2 - 2x - 1 = 0 \\ (x-2)(x+1) \rightarrow x = 2 \\ x = -1$$

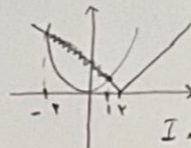
$$D_f = (-\infty, -2] \cup (-2, +\infty) \quad x \neq (-2, -2]$$

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الف) $x(x^2-1) \geq 0$ $\frac{-1}{-1} + \frac{0}{0} + \frac{1}{1} + \textcircled{I}$

ب) $|x-2| - x^2 \geq 0 \rightarrow |x-2| \geq x^2$

$$|x| + x > 0 \rightarrow \mathbb{R}^+$$



$$x \geq x^2 - x + 2 \\ \geq x^2 + x - 2 \\ (x+2)(x-1)$$

$$I \cap II \Rightarrow \mathbb{R}^+ \cap \textcircled{II} \Rightarrow [1, +\infty)$$

$$II: |x| \neq 1 \rightarrow x \neq \pm 1$$

$$D_f = [1, +\infty) \quad \checkmark$$

$$I \cap II \Rightarrow [-2, 1) - \{-1\} \quad D_f = [-2, 1) - \{-1\}$$

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$$|x-2| - 1 \neq K$$

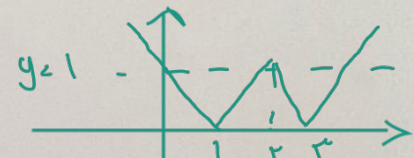
$$K \rightarrow -1 \text{ و } 1$$

$$K = 1$$

$$|x-2| - 1 \neq \pm K$$

$$|x-2| \neq \pm K + 1$$

بارسم شکل راجع به جواب من درسی!

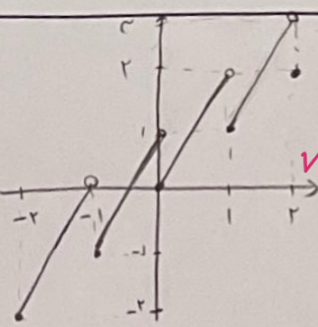


$$x-2 \rightarrow \pm K+1 \quad x \neq \pm K+2 \\ \rightarrow \pm K-1 \quad \rightarrow \pm K+1$$

$$\Rightarrow K+2 = K+1 \quad / \quad -K+2 = K+1 \quad / \quad K+2 = -K+1 \\ 2 = 2K \quad / \quad 2 = 2K \quad / \quad 2K = -2 \\ K = 1 \quad / \quad K = 1 \quad / \quad K = -1$$

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$$y = 2x - [x]$$



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

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

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

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

$$[2, 3) \rightarrow 2x-2$$

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$$\frac{x^r - \varepsilon x + r}{x + a} + b = x \rightarrow b \rightarrow (x-b)(x+a) = x^r - \varepsilon x + r$$

$$[a < -1 \rightarrow x - r + b = x \rightarrow b = r \quad S = \frac{-b}{a} = r = b - a \rightarrow \boxed{a - b = -\varepsilon}]$$

$$[a < -r \rightarrow x - 1 + b = x \rightarrow b = 1] \quad a - b = -\varepsilon$$

← جواب

2

$$\frac{x^r + rx^r - x - r}{rx^r - r} \mid \frac{x^r - 1}{x + r}$$

$$f(x) = x + r$$

$$g(x) = x + c$$

$$b + c = r + \frac{1}{r} = \boxed{r, a}$$

$$x = 1 \rightarrow r = \frac{a+r}{1+b} \Rightarrow r + rb = a + r$$

$$x = -1 \rightarrow 1 = \frac{-a+r}{-1+b} \Rightarrow b - 1 = r - a$$

$$\left. \begin{array}{l} r + rb = a + r \\ b - 1 = r - a \end{array} \right\} \begin{array}{l} r + rb = \varepsilon \\ b = \frac{1}{r} \end{array}$$

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$$Df \cap Dg = \{1\}$$

$$b - \varepsilon x = -(\varepsilon x - ca)$$

$$\varepsilon x - b = \varepsilon x - ca$$

$$b = ca$$

$$x = 1 \rightarrow b - r = 0 \rightarrow b = r$$

$$a = \frac{\varepsilon}{r}$$

$$rf - g = r\sqrt{bx - ra} + K - r - \sqrt{b - \varepsilon x} - rK = K$$

$$-K - r = K$$

$$-1 = K$$

$$ra - \frac{b}{r} - K \Rightarrow \frac{ra}{r} + 1 \Rightarrow \boxed{r}$$

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$$f - g(x) = 4\sqrt{r} \quad Dg = rx + r \geq 0 \rightarrow x \geq -1$$

$$Df = (-\infty, \sqrt{r}]$$

$$m - x \geq 0 \quad \boxed{m = \sqrt{r}}$$

$$\sqrt{r} < m \leq x$$

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

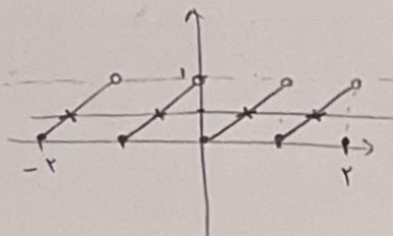
$$\boxed{n = 4\sqrt{r} - r}$$

$$n + m = \boxed{4\sqrt{r} - r + \sqrt{r}}$$

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$$y = x - [x] = \frac{1}{r}$$



جواب 4

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