

$$f(m) = m^2 + 2m + 1 + 9m^2 - 4m + 1 + m^2 + nm + mn$$

$$(10m) a^2 + (n-2) a + 2 + mn \rightarrow 10 + m = 0$$

$$m = -10$$

$$g(m) = \{ (\xi, -10), (\xi, \rho+1), (\rho+1, -1), (-9, \rho+1) \}$$

$$\rho+1 = -10 \Rightarrow \rho = -11$$

$$m+n+\rho+k = -10+2+(-11)+10 = -9$$

$$y = \sqrt{\frac{n-2}{(n^2-2)(n^2+5)}} \Rightarrow y = \sqrt{\frac{n-2}{(n-2)(n+2)(n^2+5)}} = \frac{1}{\sqrt{(n+2)(n^2+5)}}$$

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

$$f(x) = \frac{2x^2+1}{x^2-2(-x)}$$

$$f - 2(-x) \neq 0 \Rightarrow f \neq 2(-x)$$

$$[-2] \neq 2 \Rightarrow D_f = \mathbb{R} - (-2, -2]$$

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

$$\sqrt{\frac{x(m^2-1)}{|m|+x}} \rightarrow \frac{1}{\sqrt{m^2-1}} \geq \frac{1}{-d} + \frac{1}{d} - \frac{1}{d} + \frac{1}{d}$$

$$|m|+x > 0 \rightarrow (0, +\infty)$$

$$[1, +\infty)$$

$$\sqrt{\frac{|m-2|-x^2}{|m|-1}} \Rightarrow \frac{1}{\sqrt{|m|-1}} \geq \frac{1}{m-2} - \frac{1}{m^2} \Rightarrow x^2 \leq |m-2|$$

$$x^2 \leq 2-m \Rightarrow x^2 \leq m-2$$

$$x^2 + m - 2 \leq 0 \Rightarrow m^2 - m + 2 \leq 0$$

$$[-2, 1]$$

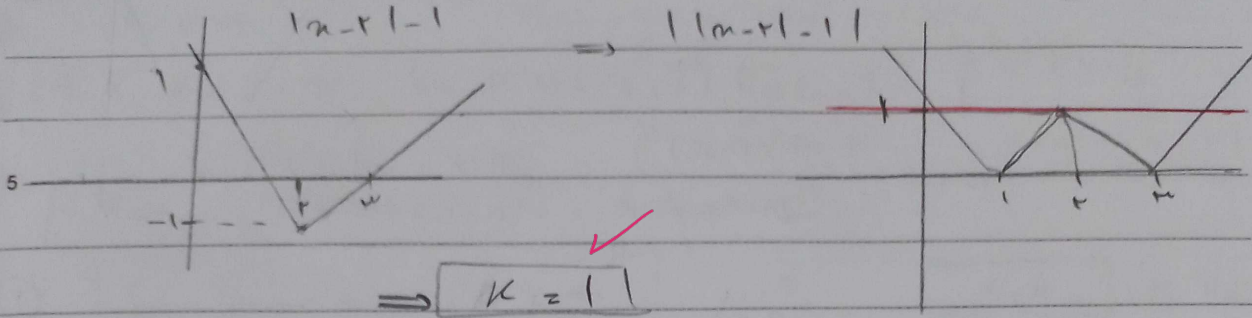
$$|m|-1 \neq 0 \Rightarrow |m| \neq 1 \Rightarrow m \neq \pm 1$$

$$Dy = [-2, 1) \cup \{-1\}$$

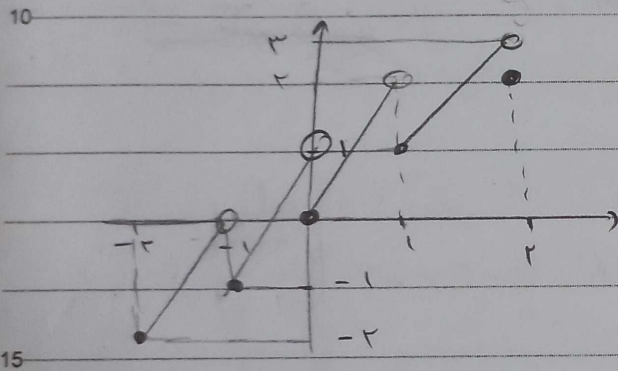
سوال زاریان

$$||x-r|-1| - k \neq \Rightarrow ||m-r|-1| \neq k \quad (2) \quad (4)$$

نوشته شده



$$-r \leq x < -1 \quad y \geq r+1 \quad 0 \leq x < 1 \quad y \geq r \quad (3)$$



$$1 \leq x < r \quad y \geq r+1 \quad (2)$$

$$x \geq r \quad y \geq r+1$$

$$-1 \leq x < 0 \quad y \geq r+1$$

$$f(m) = \frac{m^2 - 2m + r}{m+a} + b \Rightarrow f(m) = \frac{(m-1)(m-r)}{m+a} + b \quad (4)$$

$$a_2 = -1 \leq a_2 = r \quad \left\{ \begin{array}{l} a_2 = -1 \quad \frac{(m-1)(m-r)}{(m-1)} + b \Rightarrow b \leq r \\ a_2 = r \quad \frac{(m-1)(m-r)}{m-r} + b \Rightarrow b \geq 1 \end{array} \right.$$

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$$(1) a_2 = -1, b = r$$

$$(2) a_2 = r, b = 1$$

$$[f(m) = x] \text{ میسر نمی شود}$$

$$(3) a - b = -1 - r = -r - 1$$

$$(4) a - b = -r - 1 = -r - 1 \quad \checkmark$$

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مولد زائعات

هم ضرب خواست

1 1

$$f(n) \Rightarrow n \neq \pm 1 \quad \frac{n^3 + 2n^2 - n - 2}{n^2 - 1} = \frac{(n-1)(n^2 + 3n + 2)}{(n-1)(n+1)} \quad \textcircled{1}$$

$$f(n) = \frac{(n-1)(n+1)(n+2)}{(n-1)(n+1)} = n+2$$

$$g(n) = n + c$$

$$c = 2$$

$$\begin{aligned} & \frac{n^3 + 2n^2 - n - 2}{n^2 - 1} = \frac{n^2 + 2n - 1}{n + 1} \\ & = \frac{n^2 + 2n + 1 - 2}{n + 1} = \frac{(n+1)^2 - 2}{n+1} = n + 2 - \frac{2}{n+1} \end{aligned}$$

$$f(n) = g(n)$$

$$\Rightarrow g(1) = 3 \neq f(1)$$

$n \neq \pm 1$ برای $n = \pm 1$ برای

$$g(-1) = 1 \neq f(-1)$$

$$f(n) = \frac{a(n+2)}{n+1} \Rightarrow f(1) = \frac{a+2}{1+1} = 3 \quad 3 + 3b = a+2$$

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

$$\begin{cases} 3b-a = -1 \\ b+a = 3 \end{cases}$$

$$b+a = 3$$

$$fb = 2$$

$$b = \frac{1}{f}$$

$$a = \frac{5}{f}$$

$$b+c = \frac{1}{f} + 2$$

$$[b+c = \frac{5}{f}] \quad \checkmark$$

$$2f - g = 2(\sqrt{\varepsilon n - 3a + k - 1}) - (\sqrt{b - \varepsilon n + 3k}) \quad \textcircled{2} \quad \textcircled{1}$$

$$2f - g = 2\sqrt{\varepsilon n - 3a + 2k - 2} - \sqrt{b - \varepsilon n - 3k} = 2\sqrt{\varepsilon n - 3a + k} - \sqrt{b - \varepsilon n - 2}$$

$$\Rightarrow \text{برای } n=1 \Rightarrow 2\sqrt{\varepsilon - 3a - k} - \sqrt{b - \varepsilon - 2} = k$$

$$f - 3a = 0 \Rightarrow 3a = \varepsilon \quad b - \varepsilon = 0 \quad b = \varepsilon$$

$$-k - 2 = k \Rightarrow 2k = -2 \Rightarrow k = -1$$

$$3a - \frac{b}{f} - k = f - \frac{\varepsilon}{f} - (-1) = 3 \quad \checkmark$$

$$\varepsilon n - 3a \geq 1$$

$$3a \leq \varepsilon n$$

$$n \geq \frac{3a}{\varepsilon}$$

$$b - \varepsilon n \geq 1$$

$$\varepsilon n \leq b$$

$$n \leq \frac{b}{\varepsilon}$$

رنگین همان

درست در اینجا

باید داشت داخل زائعات را ضرب کرد.

سوال اول

$$g(x) = \sqrt{2x+2} \Rightarrow Dg: 2x+2 \geq 0 \Rightarrow 2x \geq -2 \Rightarrow x \geq -1 \quad (9)$$

$$Dg = [-1, +\infty)$$

$$Df \cap g = [-1, v] \Rightarrow Df \cap g = [-1, v] \Rightarrow Df = (-\infty, v]$$

$$f(x) = \sqrt{m-x} + n \quad Df: m-x \geq 0 \Rightarrow m \geq x \Rightarrow m \geq v$$

$$f - g(x) = 4\sqrt{2} \quad g(3) = \sqrt{8} = 2\sqrt{2}$$

$$f - 2\sqrt{2} = 4\sqrt{2} \quad f(3) = 6\sqrt{2}$$

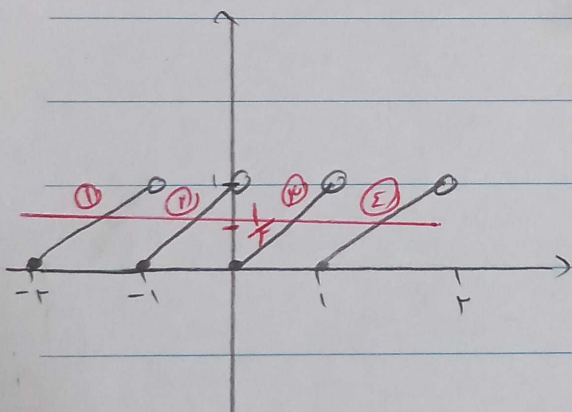
$$f(x) = m + n = ? \quad \rightarrow m = v$$

$$f(x) - g(x) = 4\sqrt{2} \rightarrow x + n - 2\sqrt{2} = 4\sqrt{2} \rightarrow n = 6\sqrt{2} - x$$

$$m + n = 2 + 6\sqrt{2}$$

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

$$[-2, 2] \text{ رanges } y = x - [x]$$



داده 4 جواب است ✓