

$$P_2 = \{(-1, 2), (0, 1), (1, 0), (1, 4)\}$$

(سوال ۱)

$$P_f = \{(-1, 0), (0, 3), (1, 4), (1, 0)\}$$

$$P_2 - P_f = \{(-1, 2), (0, 1), (1, 4)\}$$

$$f(x) = 2x - 1 \quad D = [1, +\infty)$$

(سوال ۲)



$$g(x) = \frac{1}{3}x + 2 \rightarrow (-\infty, 3] \quad \text{II}$$

$$D = (-\infty, 3]$$

$$I \cup \text{II} = (-\infty, 4] \cup [1, +\infty)$$

$$y = \frac{x^2}{-1} + x + 3 > \frac{3}{1} \Rightarrow x^2 - 2x - 6 < -3$$

(سوال ۳)

$$x^2 - 2x - 3 < 0$$

$$(x-3)(x+1) < 0$$

$$\Rightarrow R = (-1, 3)$$

$$b-a = \sqrt{3-(-1)} = 2$$

$$y = |x-1| + |x-3| + |2x-4|$$

$$x=0 \rightarrow y=1$$

$$x=1 \rightarrow 2$$

$$x=2 \rightarrow 2$$

$$x=3 \rightarrow 4$$

$$x=4 \rightarrow 6$$

$$y = -x + 1$$

$$-x + 1 - x + 3 = 2x + 4 \quad x < 1$$

$$-x + 1 + x + 3 = 2x + 4$$

$$x-1-x+3-2x+4 = 1 < x < 2$$

$$x-1-x+3+2x-4 = 2x-2 \quad 2 < x < 3$$

$$x-1+x-3+2x-4 = 3 < x$$

$$\Rightarrow x-1$$



(سوال ۴)

مقدار مینیمم

Aiman

$$y = |x| - 1 \quad |x+1|$$

(سوال 5)

$$x=0 \quad x=-1 \quad x \geq 1$$

$$x=0 \rightarrow -1$$

$$-1 \leq x \leq 0$$

$$x=1 \rightarrow -1$$

$$x \geq 1 \rightarrow +1$$

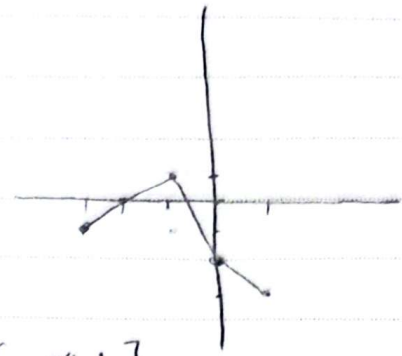
$$x=-1 \rightarrow 0$$

$$-x-1$$

$$x=-1 \rightarrow 0$$

$$x=1$$

$$R = (-\infty, 1]$$



$$y = \frac{x^2 + \omega x + m}{x+1}$$

$$(x+\omega)(x-1)$$

(سوال 10)

$$y = \frac{x^2 + \omega x + m}{x+1}$$

$$x^2 + (\omega - 1)x + m - y = 0 \quad \Delta = \frac{(\omega - 1)^2 - 4(m - y)}{4}$$

$$(\omega - 1)^2 - 4(m - y) \geq 0 \quad \omega - 1 \geq 2\sqrt{m - y}$$

$$\Delta \leq 0 \rightarrow \omega - 1 \geq 2\sqrt{m - y}$$

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

مجموعه جواب

$$x = -1 \rightarrow +1$$

$$R = [1, +\infty)$$

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

$$m \rightarrow (-\infty, +\infty)$$

$$x+2 \quad ; \quad x \geq 1$$

$$x^2 - 2x + 2 \quad ; \quad 0 \leq x \leq 1$$

$$|x| + 2 \quad ; \quad x < 0$$



(سوال 25)

$$R = [1, +\infty)$$

$$f(x) = \begin{cases} x^2 + 2x + 2 & ; \quad x \leq 0 \\ 2x & ; \quad x > 0 \end{cases}$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-2 \pm \sqrt{4 - 4}}{2} = -1 \rightarrow y = 2 - 1 + 2 = 1 \quad (1) \text{ سوال}$$

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

$$-1 \leq [2x] - 2x < 0 \rightarrow R = [-1, 0]$$

$$I \cup II = [-1, +\infty)$$

(I)

(II)

Arman

$$y = a+1 - \sqrt{2x+3} \quad D = [b, +\infty)$$

(1) حل

$$2x+3 \geq 0$$

$$R = (-\infty, \infty)$$

$$x \geq -\frac{3}{2} \Rightarrow b = -\frac{3}{2}$$

$$y = a+1 - \sqrt{2x+\frac{3}{2}+3} = \omega \Rightarrow a = \omega$$

$$ab = \omega x - \frac{3}{2} = -9$$

$$f(x) = 2\sqrt{x+1} + \epsilon\sqrt{1-x}$$

ع.س.ف

$$x+1 \geq 0 \quad x \geq -1$$

$$1-x \geq 0$$

$$1 \geq x$$

$$\Rightarrow D = [-1, 1]$$

(10) حل

$$x=1$$

$$f(x) = 2\sqrt{2}$$

$$f(x) + g(x) = 2\sqrt{2+2\sqrt{1-x}}$$

$$x=1$$

$$f(x) = 2\sqrt{2}$$

$$g(x) = \sqrt{2}$$

$$x=-1$$

$$f(x) = \epsilon\sqrt{2}$$

$$f(x) + g(x) = 2\sqrt{2+2\sqrt{1-(-1)}}$$

$$f(x) = \epsilon\sqrt{2}$$

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

$$y = \frac{f(x)}{g} = \frac{g(x)}{w}$$

$$x=1$$

$$\frac{2\sqrt{2}}{g}$$

$$-\frac{\sqrt{2}}{w}$$

$$= \frac{2\sqrt{2} - \sqrt{2}}{g} = 0$$

$$x=-1 \quad \frac{\epsilon\sqrt{2}}{g} - \frac{\sqrt{2}}{w} \Rightarrow \frac{\epsilon\sqrt{2} + \sqrt{2}}{g} = \sqrt{2}$$

$$R_f = [0, \sqrt{2}]$$