

1

18, 25

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$$y \cap f \cap c \Rightarrow -1, 1, 0$$

اختصاصات

178 - 1

$$y \cap f = \{(1, 2), (0, 1), (1, 1)\} \checkmark$$

دقتاً
ع. 11

$$f(x) = x - 1$$

$$[2, +\infty)$$

$$\min_{f \cap c} = 2 \times 2 - 1 = 3$$

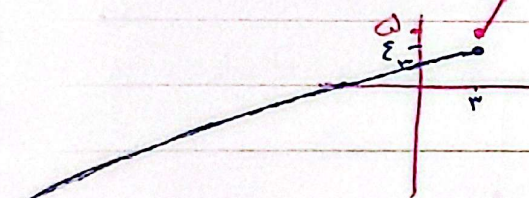
2 - 2

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

$$(-\infty, 2]$$

$$\max_{g \cap c} = 1 + 2 = 3$$

$$\min_{g \cap c} = -\infty$$



$$R_f = [2, +\infty)$$

$$R_g = (-\infty, 2]$$

$$R_f \cap R_g = (-\infty, 2] \cup [2, +\infty) \checkmark$$

$$y = -\frac{x^2}{x} + x + 2 \Rightarrow -\frac{x^2}{x} + x + 2 > \frac{2}{x}$$

2 - 2

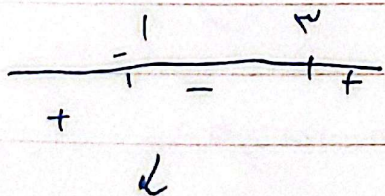
$$-x^2 + x + 2 > 2$$

$$-x^2 + x + 2 > 0$$

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

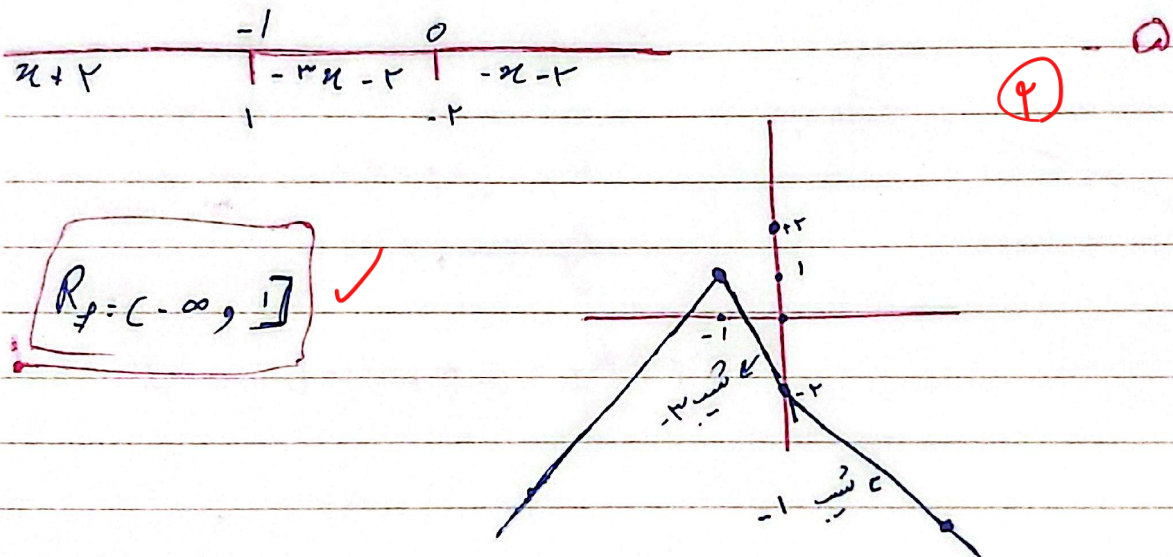
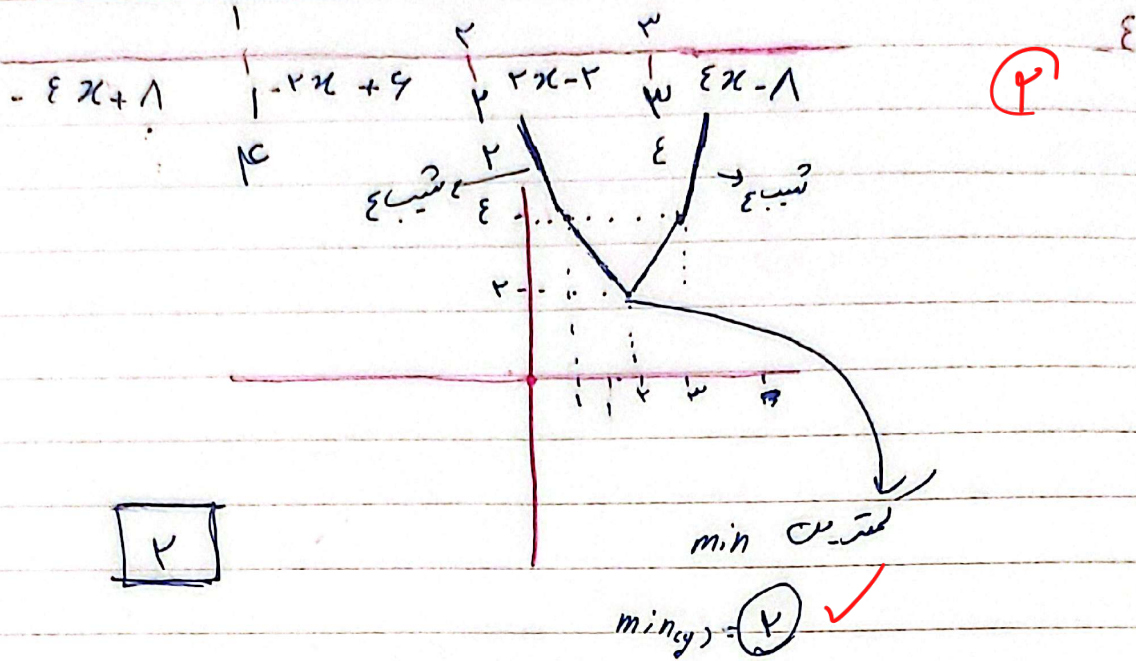
$$(x - 2)(x + 1) < 0$$

$$x_1 = 2 \quad x_2 = -1$$



$$D_f = (-1, 2) \Rightarrow \sqrt{2 - (-1)} = \sqrt{3} = \sqrt{3} \checkmark$$

dn



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

$$x^2 + (\omega - y)x + (m - y) = 0 \quad \Delta \geq 0$$

$$\left. \begin{matrix} m \leq \epsilon \\ m \in \mathbb{N} \end{matrix} \right\} \Rightarrow m = 1, 2, 3$$

$$y^2 + y - 1 \cdot y - \epsilon m + \epsilon y \geq 0 \quad y^2 - \epsilon y - \epsilon m + \epsilon \omega \geq 0$$

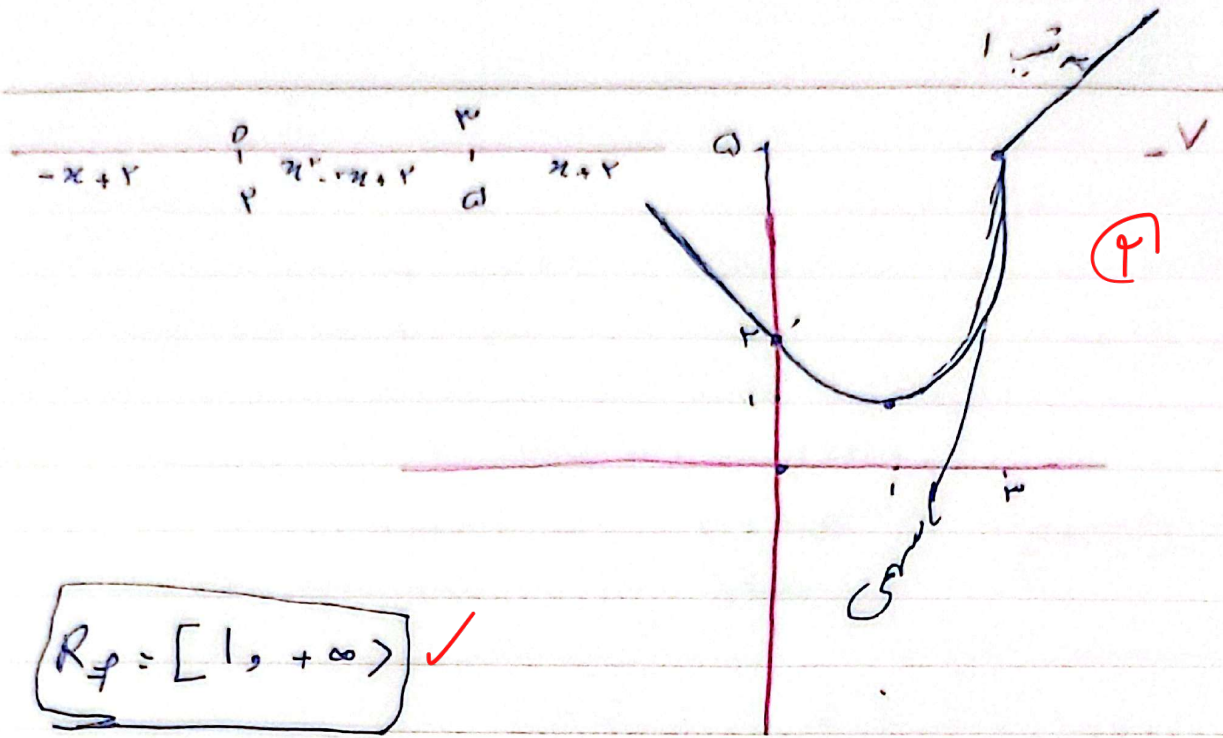
~~Graph~~

$$\frac{-b}{2a} = \frac{\epsilon}{2} = 1$$

$$9 - 11 - \epsilon m + \epsilon \omega \geq 0$$

dotnote

$$m \in \mathbb{N}, \quad m \leq \epsilon$$

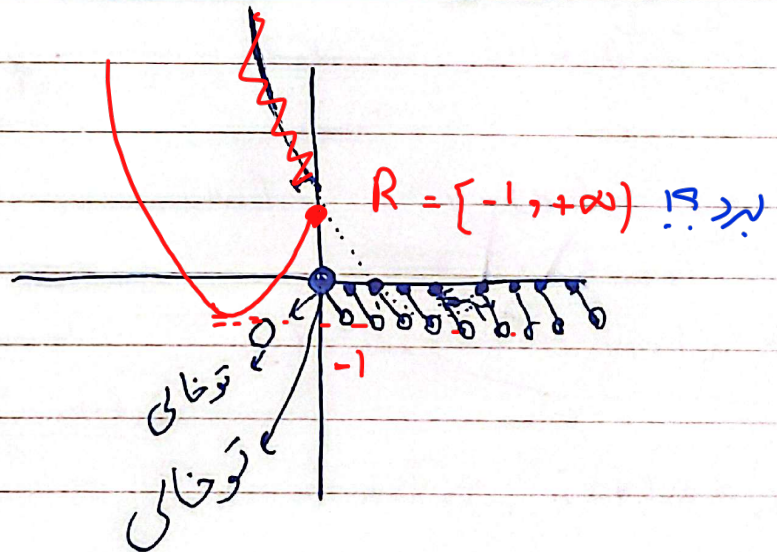


$$R_f = [1, +\infty) \quad \checkmark$$

Δ - (0, 2)

$$x^2 + 6x + 4 \quad 0 \quad [2x] - 2x \quad [2x] - 2x$$

$$(x-1)(x-3)$$



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

$$[b, +\infty)$$

$$\sqrt{2x+3} \geq 0$$

$$\sqrt{2x+3} = 3$$

$$2x+3 = 9 \Rightarrow b = -\frac{3}{2} \checkmark$$

(2)

$$a+1-0 = a+1 \quad \Leftarrow \sqrt{2x+3} = 0 \quad \text{بیشترین برد}$$

$$(-\infty, 0]$$

$$a+1 = 0$$

$$a = -1 \checkmark$$

$$a, b = \{x - \frac{3}{2} = -\frac{9}{2}\}$$

$$-\frac{9}{2} \checkmark$$

(2) 10

$$D_f = [-1, 1]$$

$$1-x \geq 0$$

$$x+1 \geq 0$$

$$1 \geq x$$

$$x \geq -1$$

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

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

$$\frac{\sqrt{1-x}}{4} = \sqrt{1-x} \checkmark$$

$$R_g = [0, \sqrt{2}] \checkmark$$

$$g(x) = (f(x) + g(x)) - f(x)$$

$$3\sqrt{2+2\sqrt{1-x}}$$

$$\frac{f(x)}{4} = \frac{g(x)}{3}$$

$$\Rightarrow \frac{f(x) - 2g(x)}{4} = \frac{\sqrt{2x+1} + \sqrt{1-x} - \sqrt{2x+1} - \sqrt{1-x}}{4}$$

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

$$f(x) + g(x) = 3\sqrt{1+1-x+x+\sqrt{1-x}} = 3\sqrt{(\sqrt{2x+1}) + \sqrt{1-x}} =$$

$$3(\sqrt{2x+1} + \sqrt{1-x})$$

$$g(x) = (f(x) + g(x)) - f(x) = 3\sqrt{2x+1} + 3\sqrt{1-x} - 2\sqrt{2x+1} - 2\sqrt{1-x} =$$

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