

(بہنام خدا) (ستائش خدایا) (یار دہم دختہ A)

14, 20

$$2g - 3f \text{ بر } g = \{(-1, 1), (0, 4), (1, 0), (1, 2)\} \text{ و } f(x) = \sqrt{1-x^2}$$

1, 10

$$\{(-1, 2), (0, 5), (1, 4)\}$$

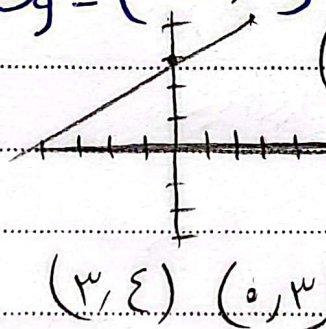
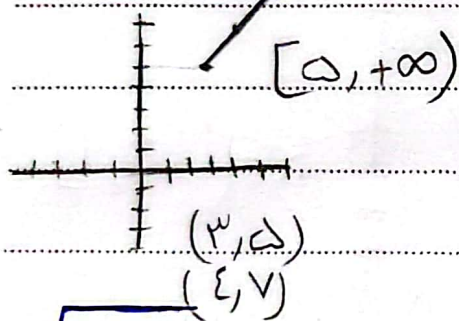
$$2 - \dots = R = \{2, 5, 4\}$$

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

$$R_f \cup R_g =$$

$$D_f = [3, +\infty) \text{ و } f(x) = 2x - 1$$

$$D_g = (-\infty, 3] \text{ و } g(x) = \frac{1}{3}x + 3$$



$$R_f \cup R_g = \mathbb{R} - (5, 4)$$

$$\sqrt{b-a}$$

$$R = (a, b) \text{ و } y = \frac{-x^2}{2} + x + 3$$

$$-x^2 + 2x + 4 > 3$$

$$\sqrt{4} = 2$$

5

$$-x^2 + 2x + 3 > 0$$

$$a = -1$$

$$b = 3$$

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

$$(-1, 3)$$

$$x = -1, 3$$

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

$$x = -2$$

$$x = 0$$

$$x = 1$$

$$x = 2$$

$$x = 3$$

$$x = 4$$

$$x = 5$$

$$1 + 3 + 8 = 12$$

$$2 + 2 = 4$$

$$1 + 1 + 0 = 2$$

$$2 + 2 = 4$$

$$3 + 1 + 8 = 12$$

$$4 + 2 + 6 = 12$$

$$(1, 4)$$

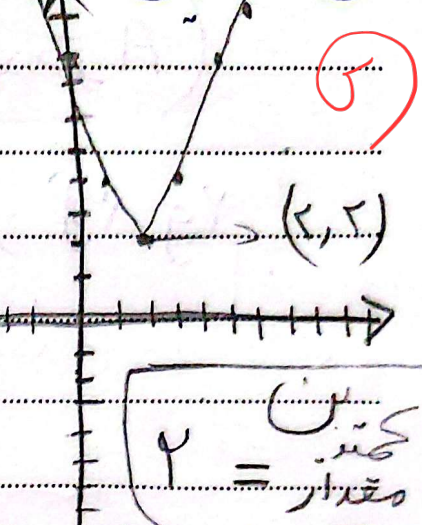
$$(2, 2)$$

$$(3, 4)$$

$$(4, 8)$$

$$(5, 12)$$

کجته مقدار (14)



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

$$-x = 2$$

$$-3x = 2$$

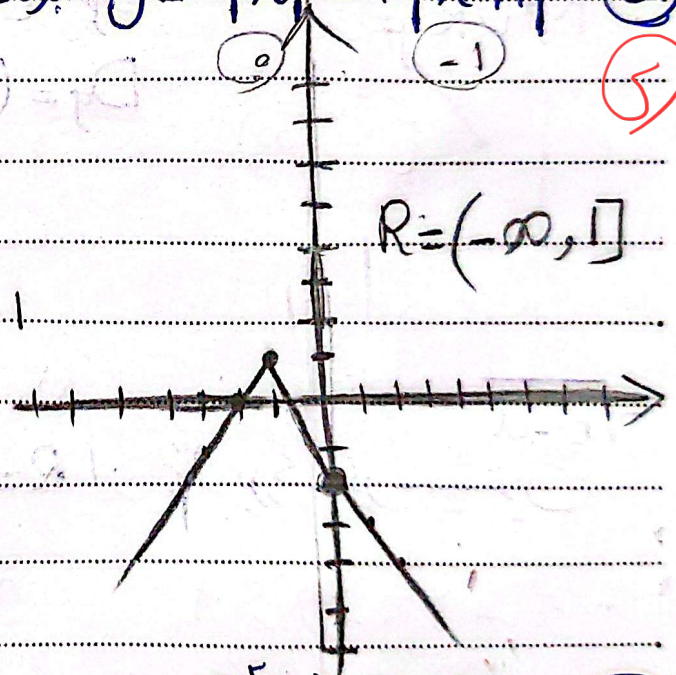
$$x + 2$$

$$x > 0$$

$$-1 < x \leq 0$$

$$x < -1$$

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



$$0, -2$$

$$1, -3$$

$$2, -4$$

$$-1, 1$$

$$0, -2$$

$$R = IR - m \text{ (محدوده) } - y = x^2 + 2x + m$$

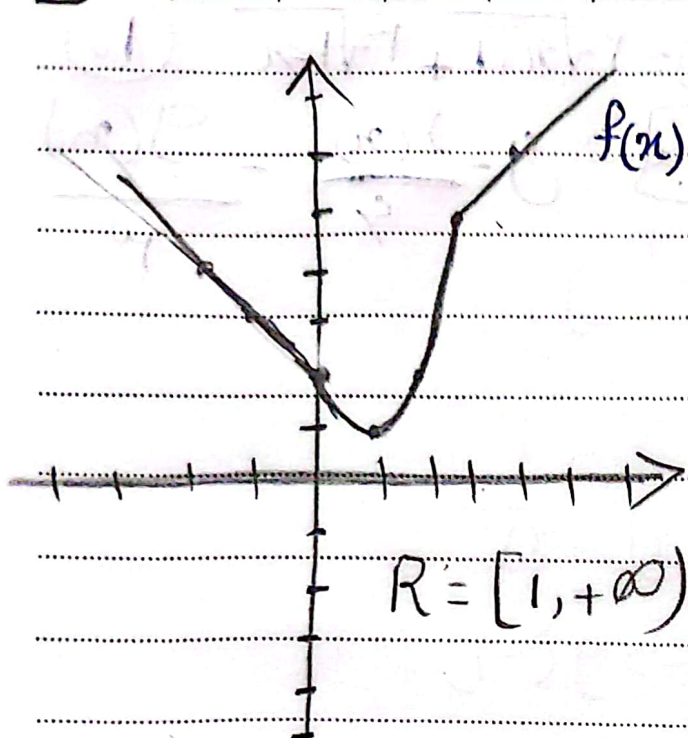
$$y_1 + y_2 = x^2 + 2x + m \rightarrow y_1 = x+1$$

$$\Delta < 0$$

$$14 - 100 + 14m < 0$$

$$m < 4$$

$$-1, 2, 3$$



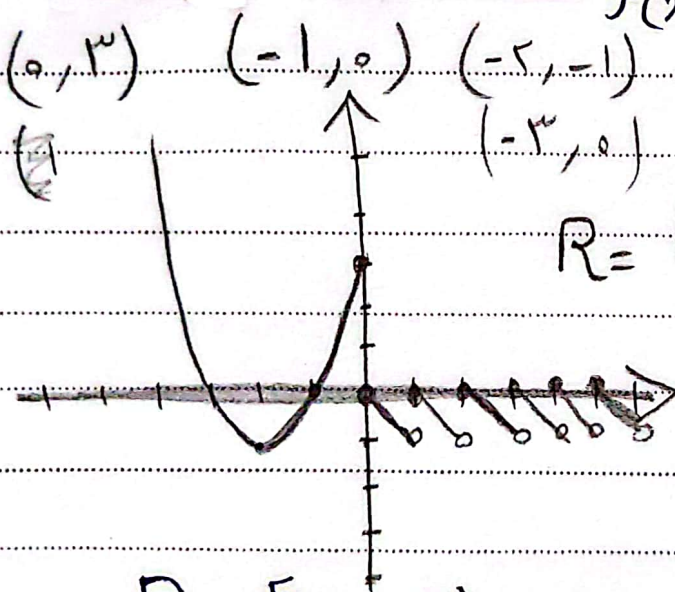
$$f(x) = \begin{cases} x+2 & x \geq 1 \\ x^2 - 2x + 2 & 0 \leq x < 1 \\ |x| + 2 & x < 0 \end{cases}$$

$$\begin{pmatrix} 1, 2 \end{pmatrix} \begin{pmatrix} 2, 3 \end{pmatrix}$$

$$\begin{pmatrix} 3, 4 \end{pmatrix} \begin{pmatrix} 4, 5 \end{pmatrix}$$

$$\begin{pmatrix} -1, 0 \end{pmatrix} \begin{pmatrix} -2, -1 \end{pmatrix}$$

$$f(x) = \begin{cases} x^2 + 4x + 3 & x \leq 0 \\ [2x] - 2x & x > 0 \end{cases}$$



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

$$D_y = [b, +\infty)$$

$$R_y = (-\infty, a]$$

$$y = a + 1 - \sqrt{2x + 3} \quad (9)$$

$$ab = 5$$

$$2x + 3 \geq 0$$

$$2x \geq -3$$

$$x \geq -\frac{3}{2}$$

$$b = -\frac{3}{2}$$

$$a + 1 = a$$

$$a = 1$$

$$2x - \frac{3}{2} = -\frac{3}{2}$$

$$f(x) + g(x) = 2\sqrt{1+x} + 2\sqrt{1-x} \quad f(x) = 2\sqrt{1+x} + 2\sqrt{1-x} \quad (10)$$

$$D_f = D_g$$

$$\Rightarrow y = \frac{f(x)}{2} - \frac{g(x)}{2}$$

$$f(1) = 2\sqrt{2} \quad f(-1) = 2\sqrt{2} \quad f(0) = 2$$

$$f(0) + g(0) = 2 \rightarrow g(0) = 0$$

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

تابع $g(x)$ را پیدا کنید

شده

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

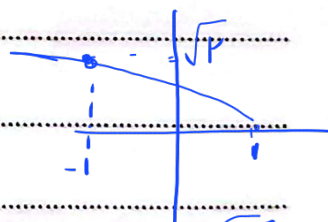
$$g(1) = 0 \quad g(-1) = \sqrt{2} \quad R = [0, \sqrt{2}]$$

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

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

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

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



$$R = [-1, 1]$$