

$$2g - 3f = \{(-1, 2), (0, 5), (1, 4)\}$$

مجموع اعضای هر دو $= 2 + 5 + 4 = 11$

$$f(x) = 2x - 1 \quad \begin{matrix} x \geq 0 \\ 2x - 1 \geq 5 \end{matrix}$$

$$R_f \cap R_g = \emptyset$$

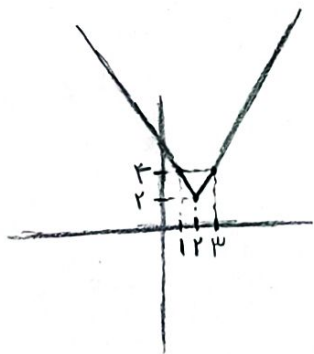
$$g(x) = \frac{1}{2}x + 3 \quad \begin{matrix} x \leq 3 \\ \frac{1}{2}x + 3 \leq 4 \end{matrix}$$

$$-\frac{x^2}{2} + x + 3 > \frac{5}{2}$$

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

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

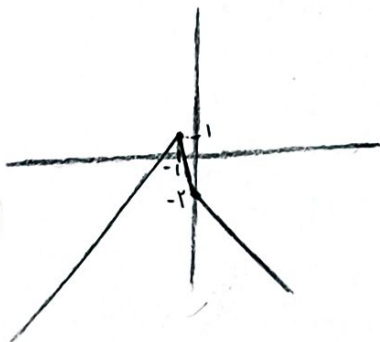
$$\begin{array}{c|c|c} -1 & 3 & \\ \hline - & + & - \end{array} \quad \begin{matrix} 3 > x > -1 \\ a = -1 \\ b = 3 \end{matrix}$$



$$\begin{array}{c|c|c} 1 & 2 & 3 \\ \hline 4x+1 & & 4x-1 \end{array} \quad \text{کمترین مقدار} = 2$$

$$\begin{array}{c|c} -1 & 0 \\ \hline x+1 & -x-1 \end{array}$$

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



$$y^2 + x = x^2 + \Delta x + m$$

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

$$x = \frac{(y-\Delta) \pm \sqrt{1 + y^2 - 2y - 4m}}{2}$$

$$y^2 - 2y + 1 - 4m \geq 0$$

$$y^2 - 2y + 1 - 4m \leq 0$$

به ازای هیچ مقدار طبیعی $m \leq 0$

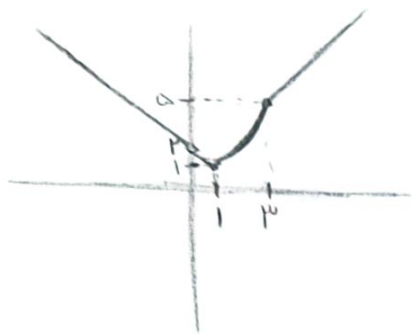
-2

-3

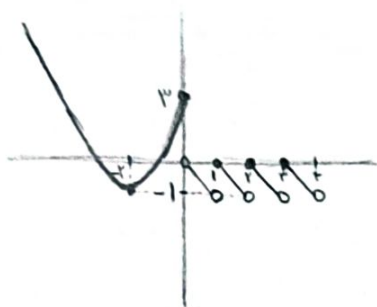
-4

-5

-6



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



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

$$D_f = \left[-\frac{c}{p}, +\infty\right) \quad \begin{aligned} &px + c \geq 0 \\ &x \geq -\frac{c}{p} \end{aligned}$$

$$\Rightarrow b = -\frac{c}{p}$$

$$a + 1 - \sqrt{0} = a \quad ab = px - \frac{c}{p} = -7$$

$$a = p$$