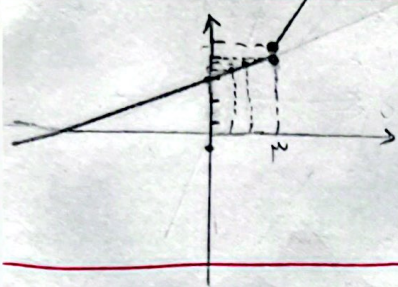


د کړنځی وختیځه (د کړنځی)

$$R_{g-f} = \{(-1, 2), (0, \infty), (1, 4)\} \rightarrow 2 + \infty + 4 = 11$$



$$R_g = (-\infty, 4]$$

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

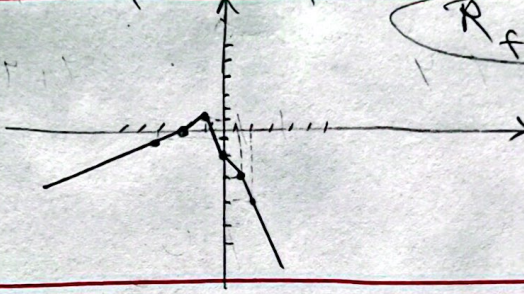
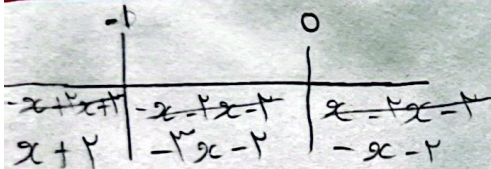
$$U \rightarrow \mathbb{R} - (4, \infty)$$

$$y = (-\frac{1}{p})x^2 + x + 3 \rightarrow -\frac{1}{p}x^2 + x + 3 - \frac{3}{p} > 0 \rightarrow x^2 - 2x - 3 < 0$$

$$(a, b) = (-1, 3) \leftarrow -1 < x < 3 \leftarrow \frac{x-3}{x+1}$$

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

$$\begin{matrix} 0 & 1 & 2 & 3 & 4 \\ \wedge & \wedge & \wedge & \wedge & \wedge \\ 1 & 2 & 3 & 4 & 5 \end{matrix} \rightarrow \text{کترین خد ا عبارت عدد 2 ا نه}$$



$$R_f = (-\infty, 4]$$

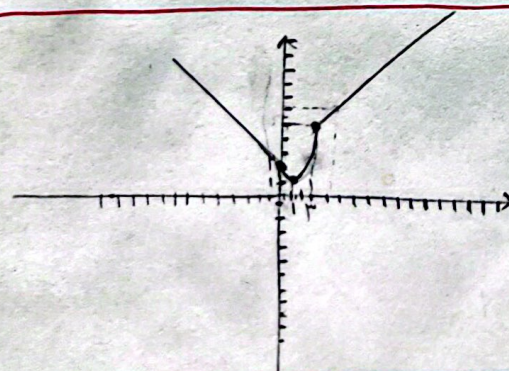
$$y_{oc} + y = 9x^2 + 2x + m \rightarrow x^2 + x(2-y) + (m-y) = 0$$

$$\Delta < 0 \rightarrow 2^2 + y^2 - 4 \cdot y \cdot m + 4y < 0$$

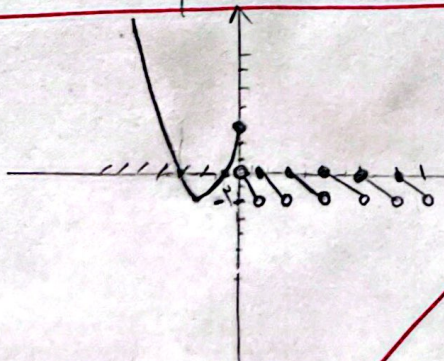
$$y^2 - 4y + 4m < 0 \rightarrow 36 - 100 + 14m = 14m - 64$$

$$14m - 64 < 0 \rightarrow m < 4 \rightarrow m = \{1, 2, 3\}$$

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



$$R_f = (-2, +\infty)$$



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

$$x = -\frac{3}{2} \rightarrow a + 1 = \infty \rightarrow a = \infty$$

$$ab = \infty \times -\frac{3}{2} = -\infty$$

$$D_f \rightarrow -1 \leq x \leq 1 = D_g$$

$$f(x) + g(x) = \sqrt[3]{(\sqrt{x-1} + \sqrt{x+1})^3} = \sqrt[3]{\sqrt{x-1} + \sqrt{x+1}} = \sqrt[3]{\sqrt{x-1}} + \sqrt[3]{\sqrt{x+1}}$$

$$\sqrt[3]{\sqrt{x+1}} + \sqrt[3]{\sqrt{x-1}} - \sqrt[3]{\sqrt{x+1}} - \sqrt[3]{\sqrt{x-1}} = \sqrt{x+1} - \sqrt{1-x}$$

$$\frac{\sqrt[3]{\sqrt{x+1}} + \sqrt[3]{\sqrt{1-x}} - \sqrt[3]{\sqrt{x+1}} - \sqrt[3]{\sqrt{1-x}}}{1} = \sqrt{x+1} - \sqrt{1-x} = g(x)$$

$$\sqrt{1-x} = y$$

$$R_f = [0, +\infty)$$

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