

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

$$P_f = \sqrt[3]{1-x^3} \rightarrow 1-x^3 \geq 0$$

$$1 \geq x^3 \rightarrow 1 \geq x$$

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

$$2 + 1 + 4 = 7$$

$$fR = [1, +\infty) \cup gR = (-\infty, 4]$$

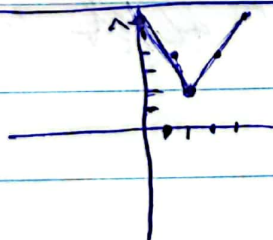
$$-\frac{2x^2}{r} + 2(1+x) \frac{r}{r} \times \frac{r}{r}$$

$$2x^2 - 2x - 4 < 0$$

$$\rightarrow -kx < r$$

$$\sqrt{b-a} = 2$$

$$|x| \geq 0$$



$$x=1 \rightarrow y=3$$

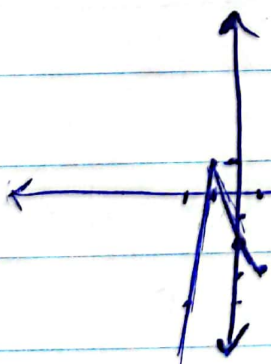
$$x=3 \rightarrow y=3$$

$$x=2 \rightarrow y=2$$

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

$$x=4 \rightarrow y=$$

$$\min R = 2$$



$$\begin{array}{l} 0 \rightarrow -2 \\ -1 \rightarrow 1 \\ 1 \rightarrow -3 \\ -2 \rightarrow -4 \end{array}$$

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

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

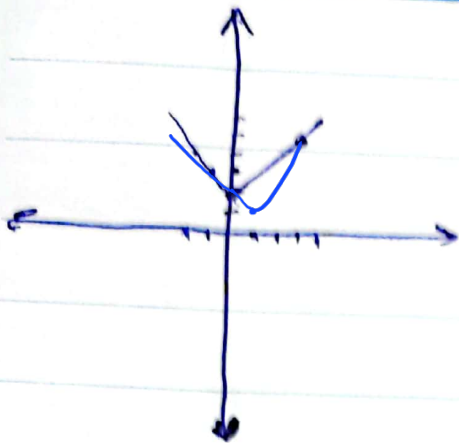
$$ay > 0 \rightarrow 1 > 0$$

$$a < 0 \rightarrow m < f \rightarrow$$

m نمرانه برابر k باشد

$$m = 1, k, p$$

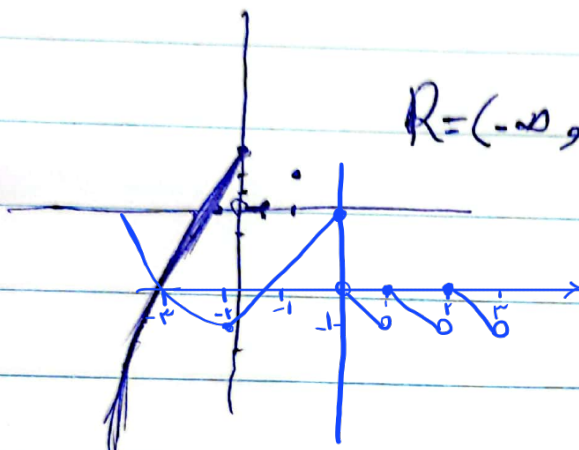
PROJIS



$$\begin{matrix} 1 \rightarrow a \\ 0 \rightarrow r \\ -1 \rightarrow r \\ -2 \rightarrow c \end{matrix} \left. \begin{matrix} \\ \\ \\ \end{matrix} \right\} \begin{matrix} \text{بسیار زیاد} \\ \text{بسیار کم} \\ \text{بسیار زیاد} \\ \text{بسیار کم} \end{matrix}$$

(1) ✓

$$R = [x_0 + a)$$



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

(2) ^

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

$$ab = r_1 + r_2 \geq 0$$

$$\begin{matrix} r_1 \geq -2 \\ r_2 \geq -\frac{r_1}{2} \end{matrix}$$

$$b = -\frac{r_1}{2}$$

(3)

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$$\max R \Rightarrow \dots \Rightarrow r_1 + r_2 = 0$$

$$r_1 = -r_2 \Rightarrow y = \frac{r_1}{r_1} + \frac{r_2}{r_2} = 1$$

$$\max R = \sqrt{0} \Rightarrow r_1 + r_2 = 0$$

$$r_1 = -\frac{r_2}{r_1} \rightarrow y = a + 1$$

$$ab = \frac{r_1}{r_1} - \frac{r_2}{r_2} = -9$$

$$a + 1 = 1$$

$$\overline{a} = r_1$$

(4)

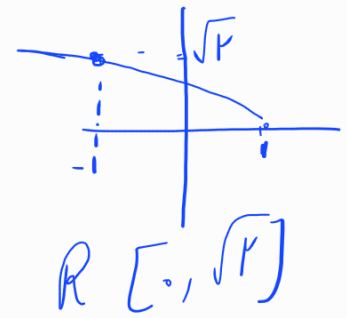
10

$$f(x) + g(x) = \sqrt{1+x} + \sqrt{1-x} \xrightarrow{\text{POI}} \sqrt{1+x}$$

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

$$f(\sqrt{1-x} + \sqrt{1+x}) \xrightarrow{\text{POI}} \sqrt{1-x} + \sqrt{1+x}$$

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



$$R [0, \sqrt{1-x}]$$