

$$y_1'' - x = 2x^2 \quad y_2'' - x = 2x^2 \rightarrow y_1 = y_2 \quad \checkmark$$

$$y_1 + x^2 - x - 1 = 0 \quad x=0 \quad |y|=1 \quad y = \pm 1 \quad \times$$

$$\sqrt{x-1} + |y-2| = 0 \quad \checkmark \quad \text{مجموع دو عدد مثبت صفر شد}$$

$$x = \cos y \quad x=0 \quad y = 90.127^\circ$$

$$a) \quad y=1$$

$$b) \quad y = 2x \quad |0| \quad |1| \quad \checkmark$$

$$y = ax + b \rightarrow b=0, a=1 \quad a+2b = 1 \quad \checkmark$$

$$\frac{-b}{a} \rightarrow \frac{-a}{1} = 2 \rightarrow a = -2, \quad \frac{b-1}{1} = 2 \rightarrow b = 3 \rightarrow b=0$$

$$f) \quad y = 2x + 1 \quad |0| \quad |1| \quad \checkmark$$

$$g) \quad y = x^2 \quad \checkmark$$

$$h) \quad y = x^0 \quad \checkmark$$

$$i) \quad \checkmark$$

$$j) \quad \checkmark$$

$$k) \quad \frac{x+2}{x^2-5x} \rightarrow x(x-5)$$

$$R = \{0, 5\}$$

$$l) \quad \frac{x+2}{x^2-7x+14} \quad |R|$$

4 دقیقه پس از خروج هیچ وقت صفر نشود

$$m) \quad \frac{x+2}{x^2+x+2} \quad |R|$$

4 دقیقه پس از خروج هیچ وقت صفر نشود

$$n) \quad \frac{x+2}{x^2-5x} \rightarrow x^2(x-5)(x+5)$$

$$R = \{0, \pm 5\}$$

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

$$x > 1 \cup x \geq 1 = [1, \infty)$$

بأسرّ صحیح

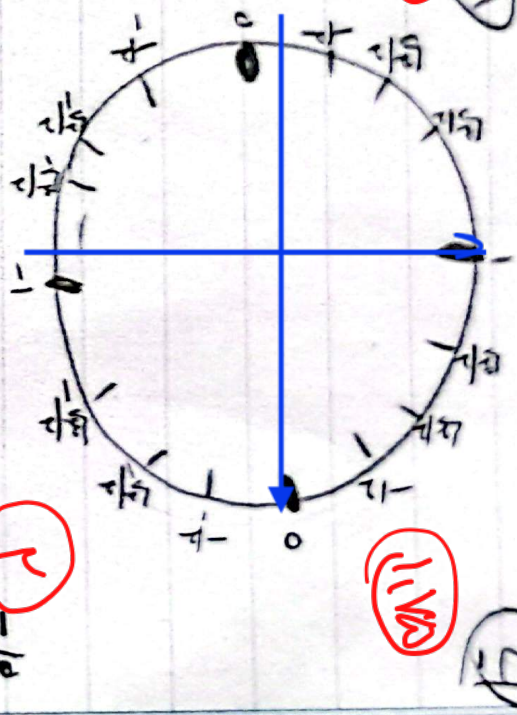
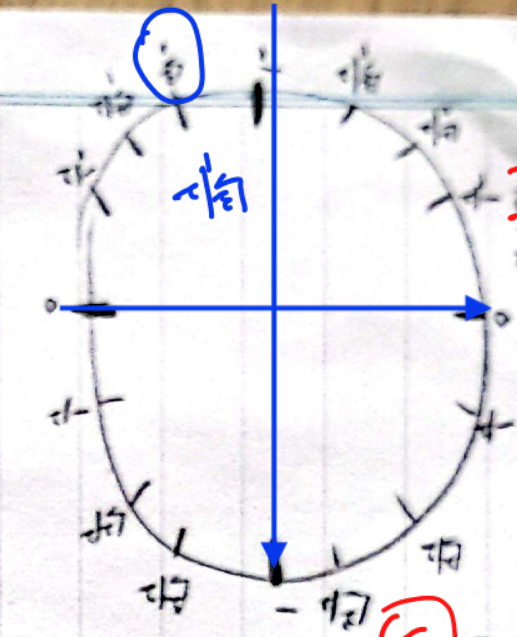
$$y = \frac{1}{x+1}$$

$$x > 1$$

$$[1, 2) \cup (2, \infty)$$

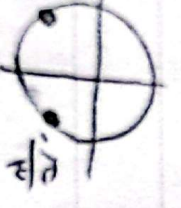
له حل؟

$$R = \{0\}$$



$$-\cos\left(\frac{\pi}{10}\right) = -\cos\left(\pi - \frac{\pi}{10}\right) = +\cos\frac{\pi}{10} = \frac{1}{2} \rightarrow \sin\frac{\pi}{6}$$

$$-\cos\frac{\pi}{5} = -\cos\left(\pi - \frac{\pi}{5}\right) = +\cos\frac{\pi}{5} = -\sin\left(\frac{\pi}{10}\right) = \sin\left(\frac{\pi}{6}\right)$$



$$\left[\frac{\pi}{2}, \pi - \frac{\pi}{2} \right]$$

$$الف) y = \sqrt{4-x} + \sqrt{x-2}$$

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$$\left. \begin{array}{ll} \text{شرط اول} & 4-x \geq 0 \quad x \leq 4 \\ \text{شرط دوم} & x-2 \geq 0 \quad x \geq 2 \end{array} \right\} \Rightarrow D_y = [2, 4]$$

$$ب) y = \frac{x^3+1}{x^3+1} \rightarrow x^3+1 \neq 0 \quad x^3 \neq -1 \quad \Rightarrow \text{مطابق به قرارداد است} \Rightarrow D_y = \mathbb{R}$$

$$ج) y = \frac{\sqrt{x-2}}{x-4}$$

$$\left. \begin{array}{ll} \text{شرط اول} & x-2 \geq 0 \rightarrow x \geq 2 \\ \text{شرط دوم} & x-4 \neq 0 \rightarrow x \neq 4 \end{array} \right\} \Rightarrow D_y = [2, \infty) - \{4\}$$

$$د) y = \frac{2x+3}{|x|+x^2} \rightarrow \underbrace{|x|+x^2}_{\text{ناقصی ناقصی}} \neq 0 \rightarrow x \neq 0 \Rightarrow D_y = \mathbb{R} - \{0\}$$