

2011

①

4

جواب: $x = \cos y \rightarrow$ $\left(\begin{array}{l} \text{توی } y \text{ منفرد است} \\ \text{نه } 90^\circ \text{ نه } 270^\circ \text{ نه } \dots \end{array} \right) x$

④ ⑤

② ③

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④

الف) $y = \sqrt{x-2} + \sqrt{2-x} \rightarrow D_f = [2, 4]$ $\checkmark$ ب) $y = \frac{3x+1}{x^2+1} \quad P_f = \mathbb{R}$

$x-2 \geq 0 \rightarrow x \geq 2$ $\hookrightarrow x-2 \geq 0 \rightarrow x \geq 2$

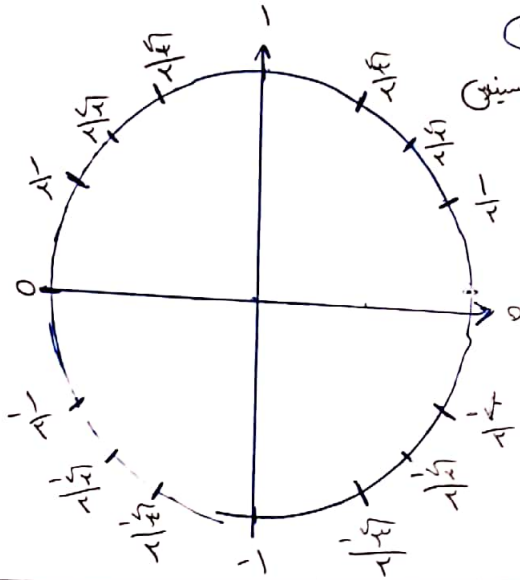
ج) $y = \frac{\sqrt{x-2}}{x-4} \rightarrow x-2 \geq 0 \rightarrow x \geq 2$
 $x-4 \neq 0 \rightarrow x \neq 4$
 $\hookrightarrow D_f = [2, +\infty) - \{4\}$

د) $\frac{3x+1}{|x|+x^2} \rightarrow D_f = \mathbb{R} - \{0\}$
 $\hookrightarrow 0$

✓

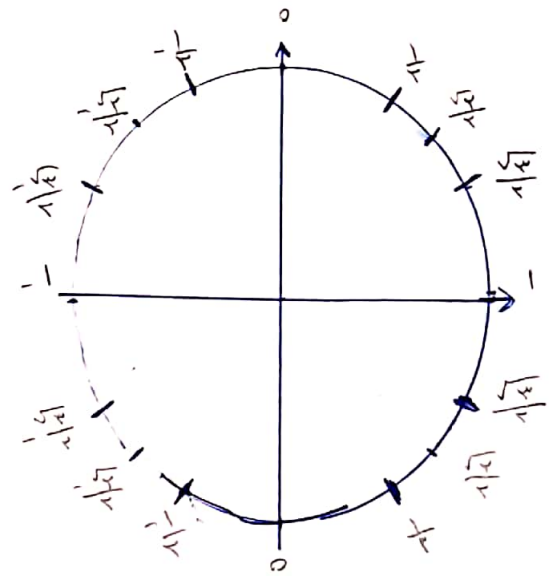
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سینوس 2



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سینوس 2

الف) $\cos \frac{2\pi}{3} = -\frac{1}{2} \leftarrow$ سینوس زاویه 120 و 240 $\leftarrow \frac{\pi}{3}, \frac{2\pi}{3}$

ب) $\cos \frac{11\pi}{6} = \frac{\sqrt{3}}{2} \leftarrow$ سینوس 30 و 330 $\leftarrow \frac{5\pi}{6}, \frac{11\pi}{6}$

2 10

الف)

ب)