

$$a^2 + 3 = 4a \Rightarrow a^2 - 4a + 3 = 0 \Rightarrow (a-1)(a-3) = 0$$

$$\begin{cases} a=1 \\ a=3 \end{cases}$$

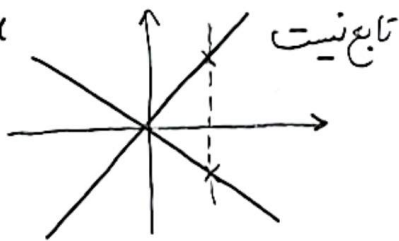
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الف) $|y| = |x|$

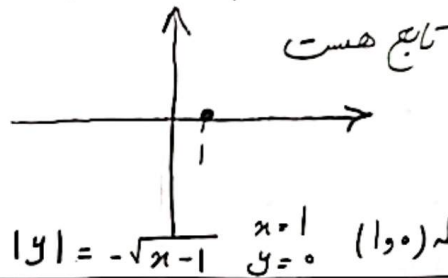
$y = \pm x$

$y = x$

$y = -x$



ب) $|y| + \sqrt{x-1} = 0$



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الف) $x=3 \rightarrow |y-1| = \sqrt{3-2} \rightarrow |y-1| = 1 \rightarrow y-1 = \pm 1 \times$

ب) $x=0 \rightarrow y^5 - y = \frac{0}{5} \rightarrow y^5 - y = 0 \rightarrow y(y^4 - 1) = 0 \rightarrow y = \{0, 1, -1\} \times$

ج) $x=0 \rightarrow \sin^2(\frac{y}{2}) + \cos^2(\frac{y}{2}) = 1 \rightarrow \cos^2(\frac{y}{2}) = 1 \rightarrow y = \{0, 2\pi\} \times$

د) $x=0 \rightarrow y(0) = 0 \rightarrow y \in \mathbb{R}$

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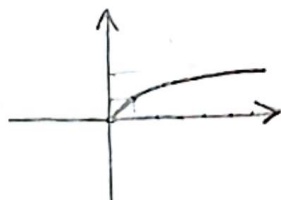
الف) $x=1 \rightarrow 1 + |y-1| = 4 \rightarrow |y-1| = 3 \rightarrow y-1 = \pm 3 \times$

تابع نیست

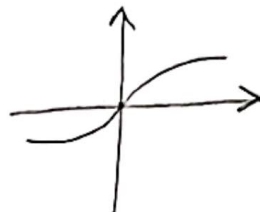
ب) $y^5 = -3x \rightarrow y = \sqrt[5]{-3x} \rightarrow \checkmark$ تابع است

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الف) $y = \sqrt[4]{x}$



ب) $y = \sqrt[5]{x}$

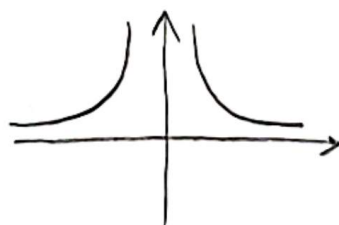


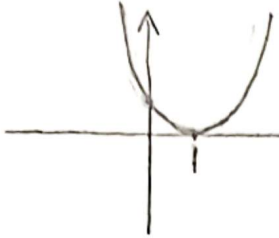
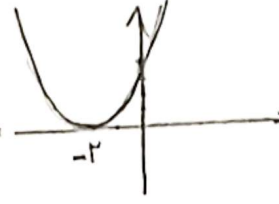
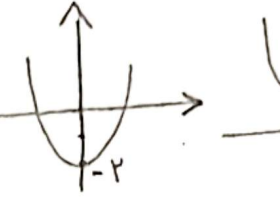
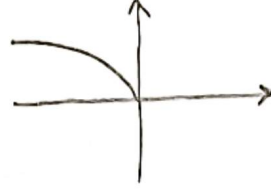
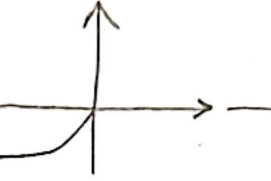
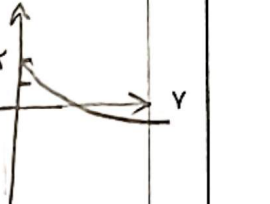
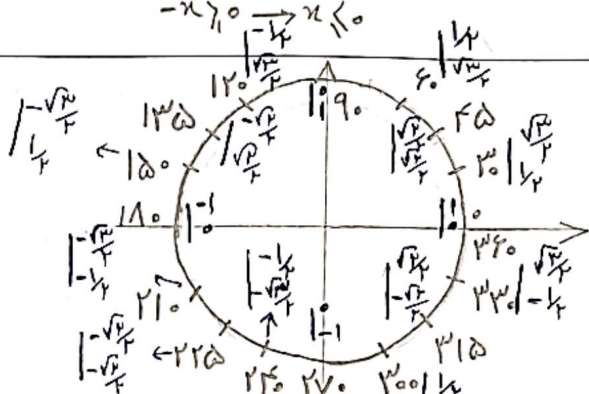
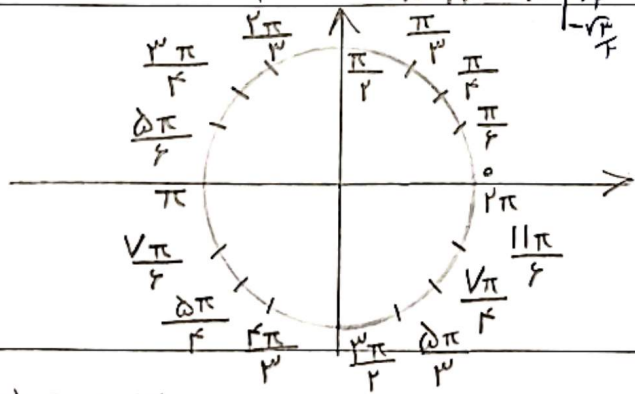
ج) $y = \frac{1}{x^3}$



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د) $y = \frac{1}{x^4}$



الف) $y = (x-1)^2$	ب) $y = (x+2)^2$	ج) $y = x^2 - 2$	د) $y = x^2 + 1$	۶
				
الف) $y = -\sqrt{x}$	ب) $y = \sqrt{-x}$	ج) $y = -\sqrt{-x}$	د) $y = -\sqrt{x} + 2$	۷
				
				۸
				۹
الف) $\cos 120^\circ = -\frac{1}{2}$	ب) $\sin 150^\circ = \frac{1}{2}$			۱۰
ج) $\cos \frac{5\pi}{3} = \cos 300^\circ = \frac{1}{2}$	د) $\sin \frac{11\pi}{6} = \sin 330^\circ = -\frac{1}{2}$			