

$$f = \{(1, 4), (1, a^2 + 3), (2, 4)\}$$

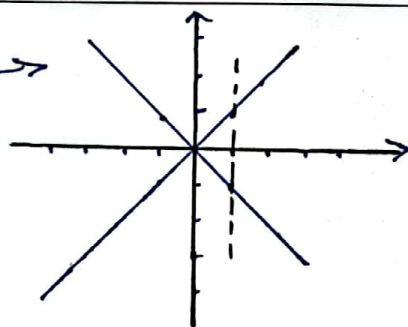
$$\rightarrow a^2 + 3 = 4a \Rightarrow a^2 - 4a + 3 = (a-1)(a-3) = 0 \Rightarrow \begin{matrix} a_1 = 1 \\ a_2 = 3 \end{matrix}$$

$$a = \{1, 3\}$$

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الف) $|y| = |x|$

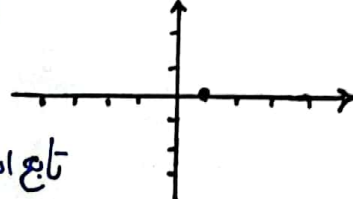
تابع نیست



ب) $|y| + \sqrt{x-1} = 0 \Rightarrow |y| = -\sqrt{x-1} \Rightarrow$
 ناشد تابع
 (0 = مشترک ناشد ناشد)

$$\begin{matrix} |y| = 0 \Rightarrow \\ y = 0 \\ x = 1 \end{matrix}$$

تابع است



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الف) $|y-1| = \sqrt{x-2} \xrightarrow{x=2} |y-1| = 0 \Rightarrow y-1 = 0 \Rightarrow y = 1$ تابع نیست

ب) $y = \frac{x^2}{2} \xrightarrow{x=0} y = 0 \Rightarrow y = 0$ تابع نیست

ج) $\sin x + \cos y = 1 \xrightarrow{\sin x = 0} \cos y = 1 \Rightarrow y = \begin{cases} 0 \\ 2\pi \end{cases} \Rightarrow y = 0^\circ$ تابع نیست $y = \{0^\circ, 360^\circ\}$

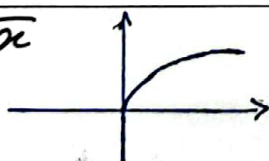
د) $xy = x \xrightarrow{x=y} y^2 = y \Rightarrow y = \begin{cases} 0 \\ 1 \end{cases}$ تابع نیست

ه) $x^2 + |y-1| = 4x \Rightarrow |y-1| = 4x - x^2 \xrightarrow{x=1} |y-1| = 3 \Rightarrow y-1 = \begin{cases} 3 \\ -3 \end{cases} \Rightarrow y = \begin{cases} 4 \\ -2 \end{cases}$ تابع نیست.

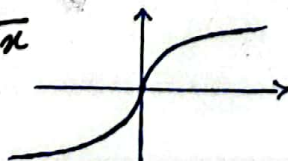
ب) $y^2 + 2x = 0 \Rightarrow \begin{cases} y_1^2 = -2x_1 \\ y_2^2 = -2x_2 \end{cases} \xrightarrow{x=y} \begin{cases} y_1^2 = y_1^2 \\ y_2^2 = y_2^2 \end{cases} \Rightarrow y_1 = y_2$ تابع است

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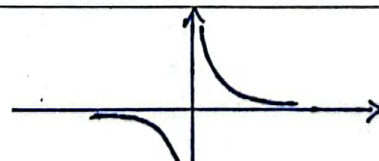
الف) $y = \sqrt{x}$



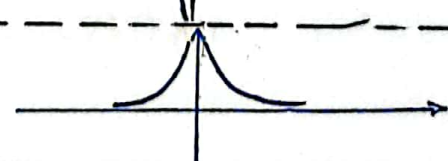
ب) $y = \sqrt[5]{x}$



ج) $y = \frac{1}{x^2}$



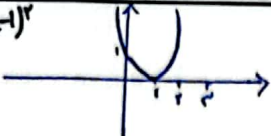
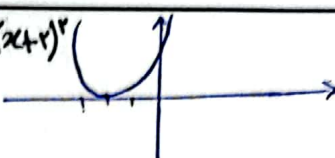
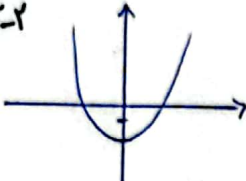
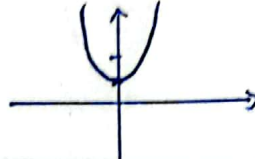
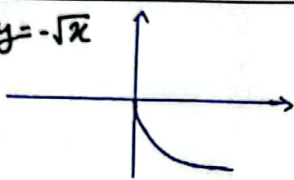
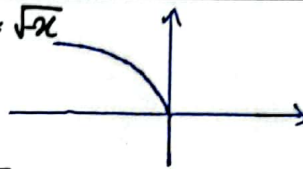
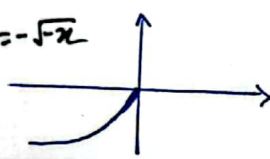
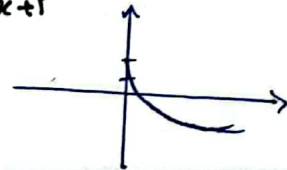
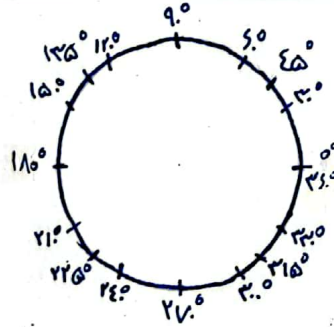
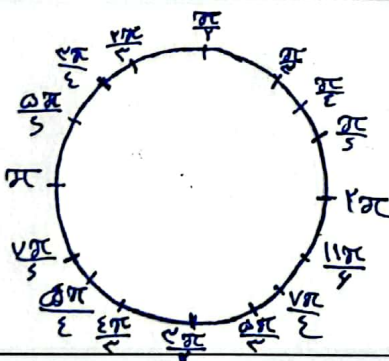
د) $y = \frac{1}{x^2}$



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تالیف شماره ۲

الف) $y = (x-1)^2$  ب) $y = (x+2)^2$  ج) $x^2 - 2$  د) $x^2 + 1$ 	۶
الف) $y = -\sqrt{x}$  ب) $y = \sqrt{x}$  ج) $y = -\sqrt{x}$  د) $y = -\sqrt{x} + 2$ 	۷
 	۸
	۹
الف) $\cos 110^\circ = -\frac{1}{4}$ ب) $\sin 10^\circ = \frac{1}{4}$ ج) $\cos \frac{10\pi}{5} = \frac{1}{4}$ د) $\sin \frac{11\pi}{5} = -\frac{1}{4}$ 	۱۰