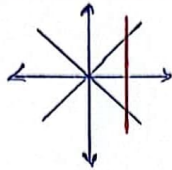


$$\begin{aligned} f(a) &= a^2 + 3 \\ 0 &= a^2 - 4a + 3 \\ 0 &= (a-1)(a-3) \\ a &= 1 \quad \text{یا} \quad a = 3 \end{aligned}$$

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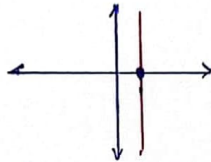
الف) $x = -y$ یا $x = y$



تابع نسبت

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ب) $\frac{|y| + \sqrt{x-1}}{|x| + \sqrt{y-1}} = 0$
 یا صفر + یا صفر
 $y = 0$ یا $x = 1$



تابع است

الف) $x \rightarrow \frac{|y-1|}{y} \neq \sqrt{\frac{y-2}{y-1}}$ $y=1$ یا $y=2$ تابع نیست

ب) $y(y^2-1)(y^2+1) = \frac{x^2}{y} \xrightarrow{x=0} y(y^2-1)(y^2+1) = 0$ $y=0$ یا $y=1$ یا $y=-1$ تابع نیست

ج) $x=0 \Rightarrow \cos \frac{y}{y} = 1 \rightarrow \cos \frac{y}{y} = \pm 1$ تابع نیست

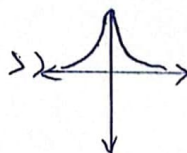
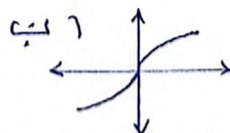
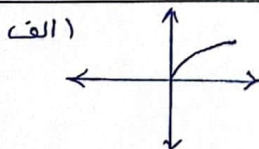
د) $x=0 \Rightarrow 2xy = 0 \rightarrow 2x \cdot 0 \cdot y = 0$ هر چیزی در ۰ برابر ۰ است

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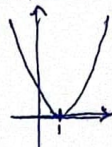
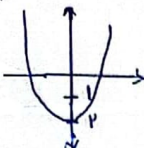
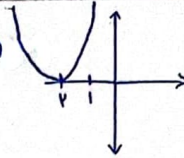
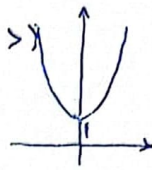
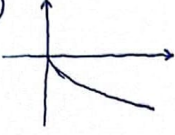
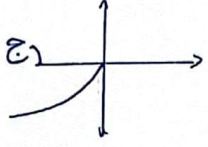
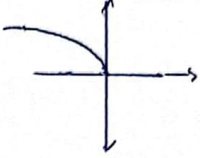
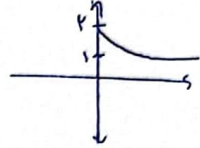
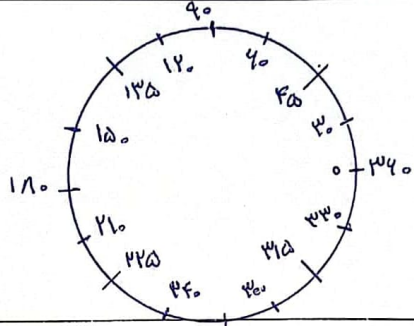
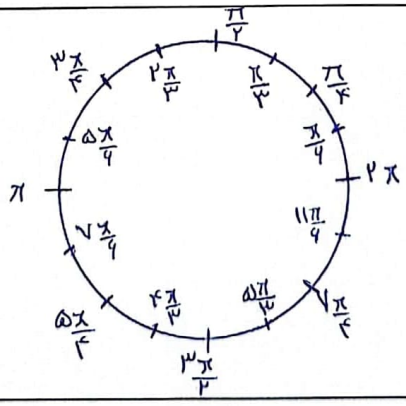
الف) $|y-1| = 4x - x^2$
 $y-1 = \pm(4x-x^2) \rightarrow y = \pm(4x-x^2) + 1 \xrightarrow{x=1} y = \pm(4-1) \Rightarrow y = \pm 3$ تابع نیست

ب) $\begin{cases} y_1^5 + 3x_1 = 0 \\ y_2^5 + 5x_2 = 0 \end{cases} \xrightarrow{x_1=x_2} y_1^5 = y_2^5$ تابع هست

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الف)  ج) 	ب)  	٦
الف)  ج) 	ب)  ج) 	٧
		٨
		٩
الف) $-\frac{1}{p}$ ج) $\frac{1}{p}$	ب) $\frac{1}{p}$ د) $-\frac{1}{p}$	١٠