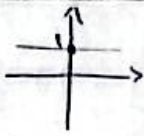
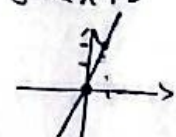
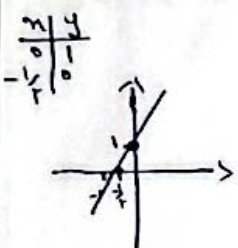
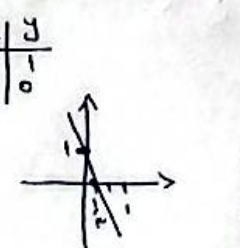
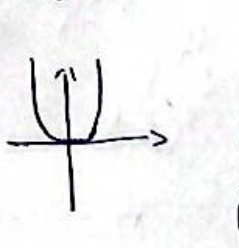
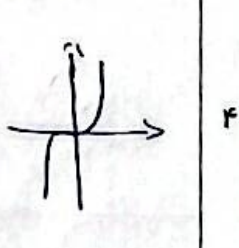
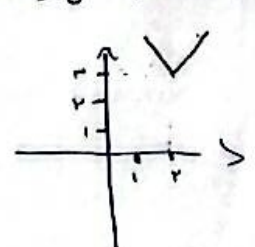
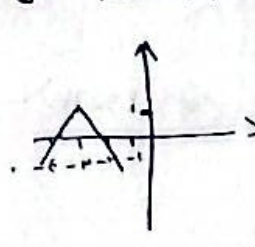
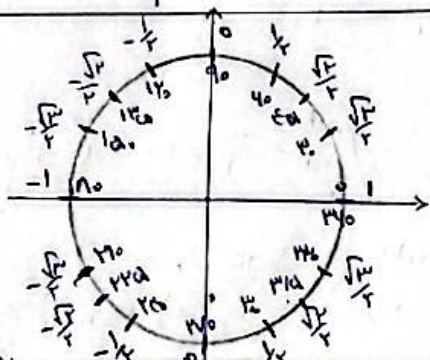
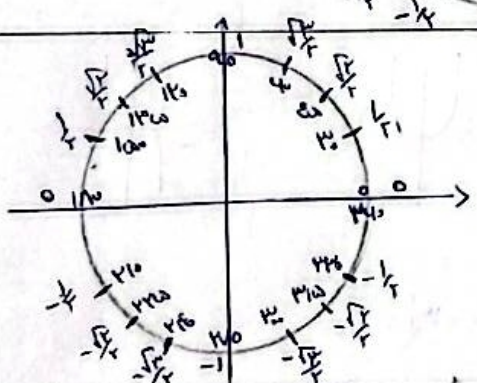
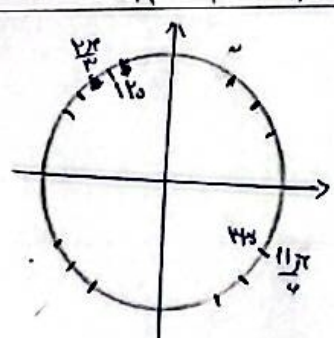


تابع است $\checkmark$ $y = \sqrt[3]{x} \rightarrow y^3 = x \rightarrow y^3 - x = 0$ $\frac{n=1}{y^3 - x = 0}$ $y^3 = 1 \rightarrow y = 1$ تابع نیست $\times$ $y + x^2 = x + 3 \xrightarrow{n=0} y = 3 \rightarrow y = \pm 3$ ج) $\sqrt{x-4} + y-2 = 0 \rightarrow \begin{cases} x-4=0 \rightarrow x=4 \\ y-2=0 \rightarrow y=2 \end{cases}$ $\rightarrow$ مجموعه ۲ مختار جداگانه مثبت صفر نسبت دارند هر دو صفر باشند د) $x = \cos y \xrightarrow{n=0} \cos y = 0 \rightarrow y = \frac{\pi}{2}, \frac{3\pi}{2}, \dots$ $\times$ تابع نیست	۱
ا) $y = k \Rightarrow y = 1$  ب) $y - y_1 = a(x - x_1) \Rightarrow y = ax + b$ $(y-2) = 2(x-1)$ $y = 2x$ 	۲
$a+2b=?$ $y=x \Rightarrow \begin{cases} b=0 \\ a=1 \end{cases} \Rightarrow 1+2 \cdot 0 = 1$ ج) $y = x^2 + ax + b \Rightarrow \begin{cases} 1 \\ 1 \end{cases} \Rightarrow \begin{cases} \frac{-b}{2a} = -\frac{a}{2} = 2 \Rightarrow a = -4 \\ 1 = 4 - 8 + b \Rightarrow b = 5 \end{cases}$ $a+2b = -4 + 10 = 6$	۳
ا) $y = 2x + 1$  $\frac{x}{y} \begin{matrix} 0 & 1 \\ 1 & 2 \end{matrix}$ ب) $y = -3x + 1$  $\frac{x}{y} \begin{matrix} 0 & 1 \\ 1 & -3 \end{matrix}$ ج) $y = x^2$  د) $y = x^3$ 	۴
ا) $y = x-2 + 3$  ب) $y = - x+3 + 1$ 	۵

ا) $y = \frac{x+1}{x^2-4x}$ $x^2-4x=0$ $x(x-4)=0$ $\begin{cases} x=0 \\ x=4 \end{cases}$ $D_f = \mathbb{R} - \{0, 4\}$	ب) $y = \frac{x+1}{x^2-4x+4}$ $x^2-4x+4=0$ $\Delta = 16-16=0$ $x=2$ $D_f = \mathbb{R}$	ج) $y = \frac{x+1}{x^2+x+1}$ $x^2+x+1=0$ $\Delta = 1-4 < 0$ $D_f = \mathbb{R}$	د) $y = \frac{x+1}{x^2-6x}$ $x^2-6x=0$ $x(x-6)=0$ $\begin{cases} x=0 \\ x=6 \end{cases}$ $D_f = \mathbb{R} - \{0, 6\}$	6
ا) $y = \sqrt{4-x} + \sqrt{x-2}$ $4-x \geq 0 \Rightarrow x \leq 4$ $x-2 \geq 0 \Rightarrow x \geq 2$ $2 \leq x \leq 4$ $D_f = [2, 4]$	ب) $y = \frac{x^2+1}{x^2+1}$ $x^2+1=0$ $x^2 = -1$ $D_f = \mathbb{R}$	ج) $y = \frac{\sqrt{x-1}}{x-1}$ $x-1 \geq 0 \Rightarrow x \geq 1$ $x-1 \neq 0 \Rightarrow x \neq 1$ $D_f = [1, \infty) \cup (1, \infty)$	د) $y = \frac{x^2+1}{x^2+1}$ $x^2+1=0$ $x=0$ $D_f = \mathbb{R} - \{0\}$	7
				8
				9
	ا) $\cos 120^\circ \rightarrow -\frac{1}{2} \Rightarrow \sin 120^\circ = \frac{\sqrt{3}}{2}$ $x = \frac{2\pi}{3}, \frac{4\pi}{3}$ ب) $\cos 300^\circ \rightarrow \frac{1}{2} \Rightarrow \sin 300^\circ = -\frac{\sqrt{3}}{2}$ $x = \frac{5\pi}{3}, \frac{7\pi}{3}$			10