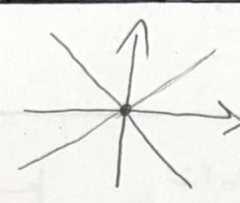
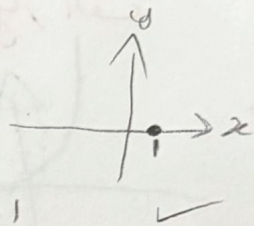
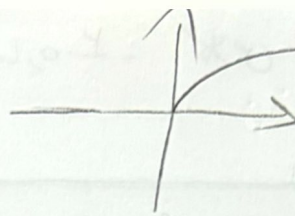


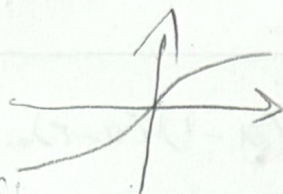
$fa = a^2 + 3 \rightarrow a^2 - fa + 3 = 0 \rightarrow (a-1)(a-3) = 0$ $\boxed{a=1}, \boxed{a=3}$	۱
الف) $y = x$ $y = x \quad y = -x$  ب) $y + \sqrt{x-1} = 0$ $y \geq 0 \quad \sqrt{x-1} \geq 0 \quad y =0 \Rightarrow y=0 \quad \sqrt{x-1}=0 \Rightarrow x=1$ 	۲
الف) $y-1 = \sqrt{x-1}$ $x=1$ $y-1 =1 \Rightarrow y-1=1 \Rightarrow y=2$ $\times$ $y-1=-1 \Rightarrow y=0$ ب) $y^2 - y = \frac{x^2}{y}$ $x=0$ $y(y^2-1)=0 \rightarrow y=0, y=1, y=-1$ $\times$ ج) $\sin^2 x + \cos^2 \frac{y}{p} = 1$ $x=0$ $\cos \frac{y}{p} = \pm 1 \quad y=0 \quad y=f x$ $\times$ د) $2x^2 y = x$ $x(2y-1)=0$ $\times$	۳
الف) $x^2 + y-1 = 4x$ $y-1 = 4x - x^2 \rightarrow y-1 = \pm (4x - x^2) \rightarrow y = 1 + (4x - x^2)$ $\times$ تابع نیست ب) $y^3 + 3x = 0$ $y^3 = -3x \rightarrow y = \sqrt[3]{-3x}$ $\checkmark$ تابع است	۴

الف) $y = \sqrt{x}$

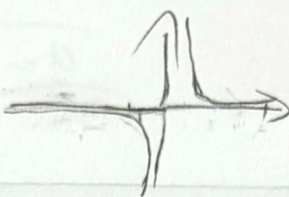


✓

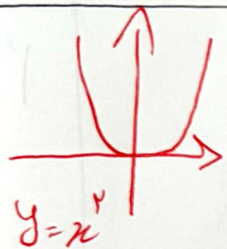
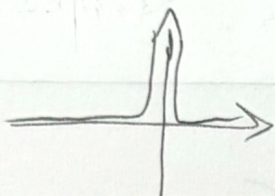
ب) $y = \sqrt[3]{x}$



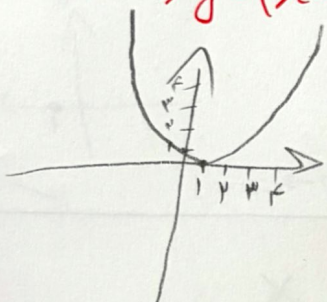
ج) $y = \frac{1}{x^3}$



د) $y = \frac{1}{x^4}$

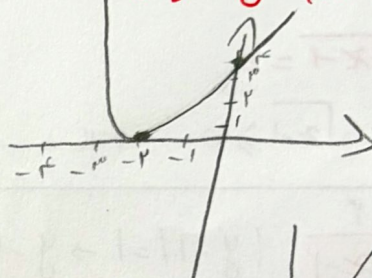


الف) $y = (x-1)^2 \Rightarrow x^2 - 2x + 1$

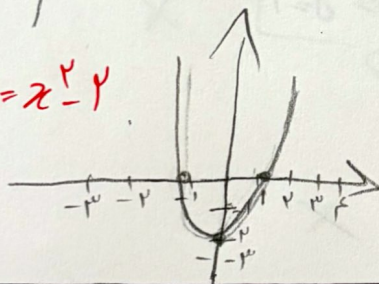


$x^2 + 4x + 4$

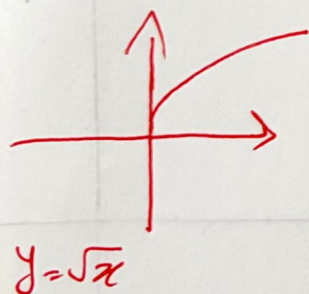
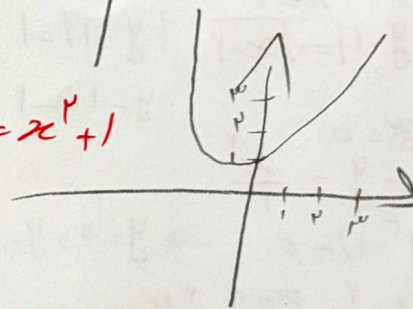
ب) $y = (x+2)^2$



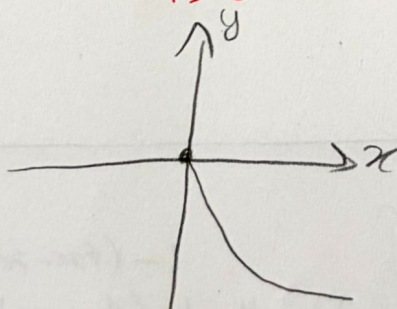
ج) $y = x^2 - 2$



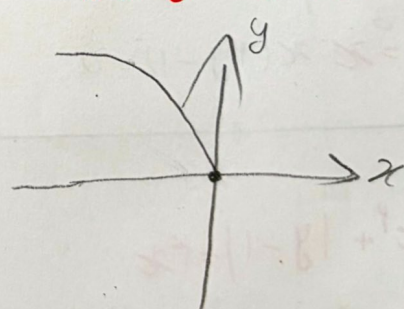
د) $y = x^2 + 1$



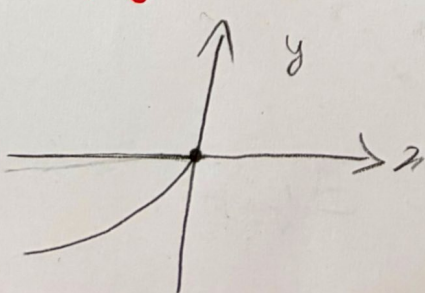
الف) $y = -\sqrt{x}$



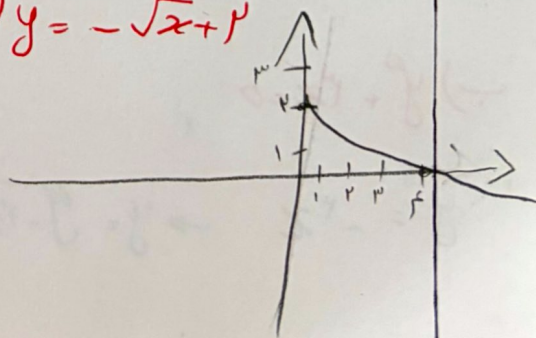
ب) $y = \sqrt{-x}$

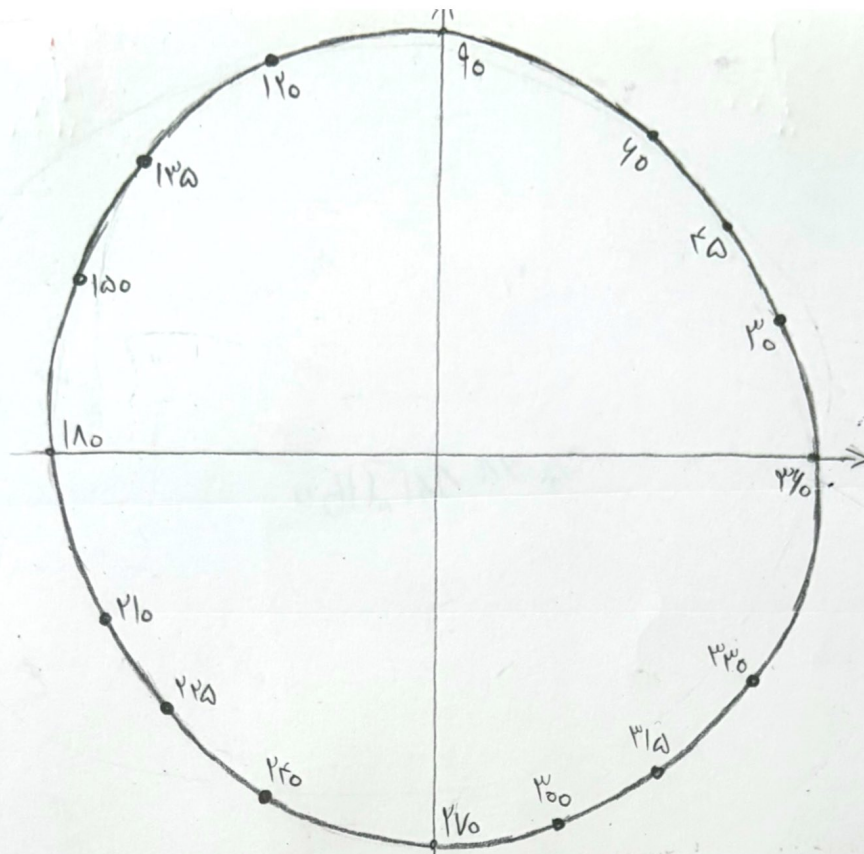


ج) $y = -\sqrt{-x}$

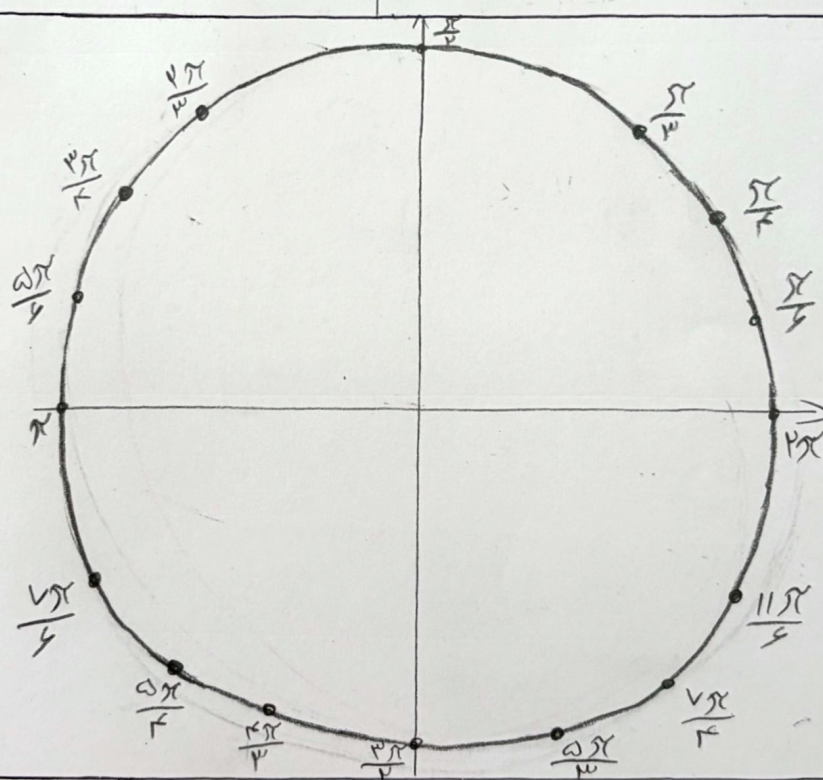


د) $y = -\sqrt{x} + 1$





7



9

الف) $\cos 120^\circ = -\frac{1}{2}$

ب) $\sin 150^\circ = \frac{1}{2}$

10

ج) $\cos \frac{5\pi}{3} = \frac{1}{2}$

د) $\sin \frac{11\pi}{6} = -\frac{1}{2}$