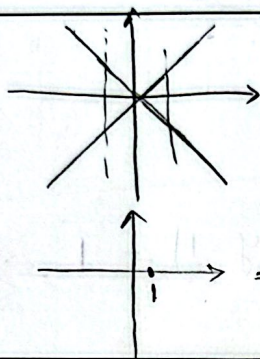


$$(1, 4a), (1, a^2 + 3) \rightarrow \text{تابع} \Rightarrow \begin{aligned} \varepsilon_a &= a^2 + 3 \\ a^2 - \varepsilon_a + 3 &= 0 \\ (a - 1)(a - 3) &= 0 \end{aligned}$$

$$\begin{aligned} a &= 1 \\ a &= 3 \end{aligned}$$

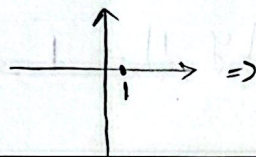
الف) $|y| = |x|$



یک خط دو نقطه را قطع می کنند

تابع نیست

ب) $|y| + \sqrt{x-1} = 0$



نقطه نقطه ای است

تابع است

الف) $|y-1| = \sqrt{x-2} \xrightarrow{x=3} |y-1| = 1 \Rightarrow \boxed{y=0}, \boxed{y=2}$

ب) $y^2 - y = \frac{x^2}{2} \xrightarrow{x=0} y^2 - y = 0 \Rightarrow y(y-1) = 0 \Rightarrow \boxed{y=0}, \boxed{y=1}$

ج) $\sin^2 x + \cos^2 \frac{y}{2} = 1 \xrightarrow{x=0} \cos^2 \frac{y}{2} = 0 \Rightarrow \boxed{y=0^\circ}, \boxed{y=180^\circ}$

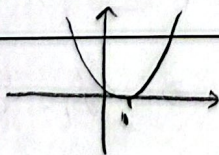
د) $\tan y = x \xrightarrow{x=0} \tan y = 0 \Rightarrow \boxed{y = \mathbb{R}}$

الف) $x^2 + |y-1| = 4x \xrightarrow{x=2} |y-1| = 4 \Rightarrow \boxed{y=-3}, \boxed{y=5}$ تابع نیست

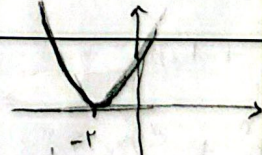
ب) $y^2 + 3x = 0 \Rightarrow \begin{aligned} y_1^2 + 3x_1 &= 0 \\ y_2^2 + 3x_2 &= 0 \end{aligned} \xrightarrow{x_1=x_2} y_1^2 = y_2^2 \Rightarrow y_1 = y_2$

چون توان فزدايم

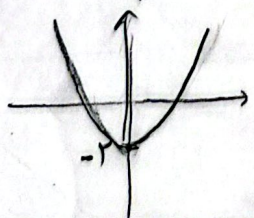
الف) $y = (x-1)^2$



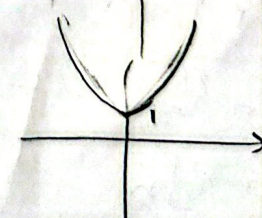
ب) $y = (x+2)^2$



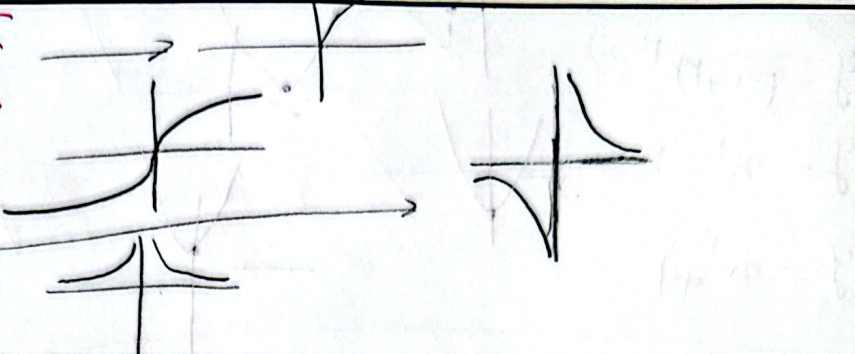
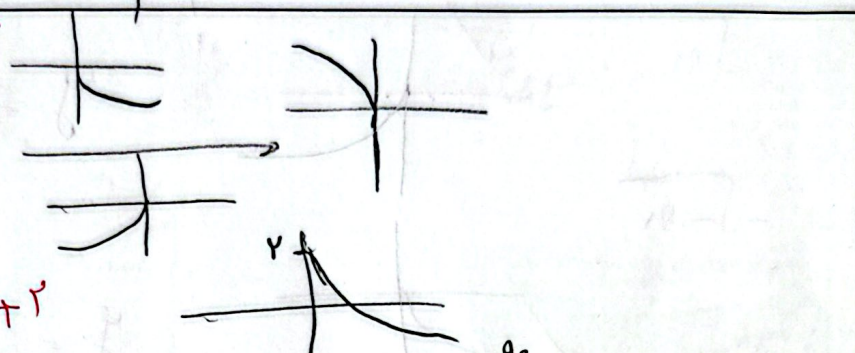
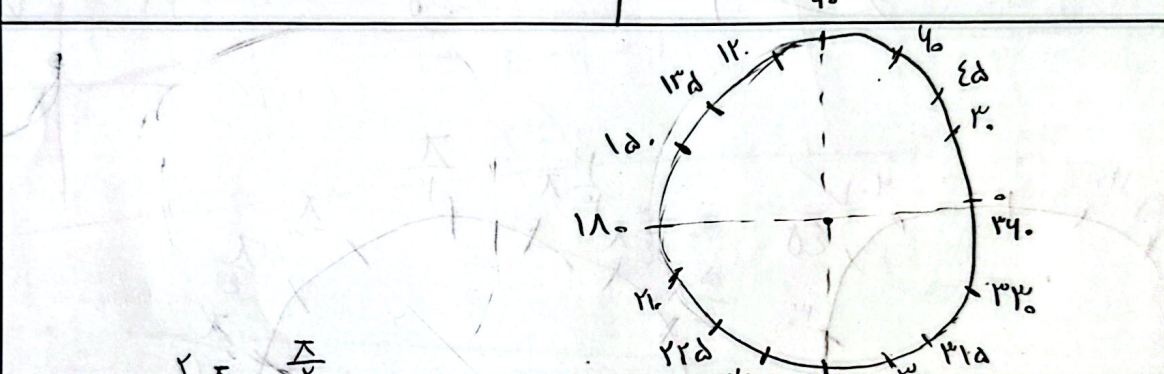
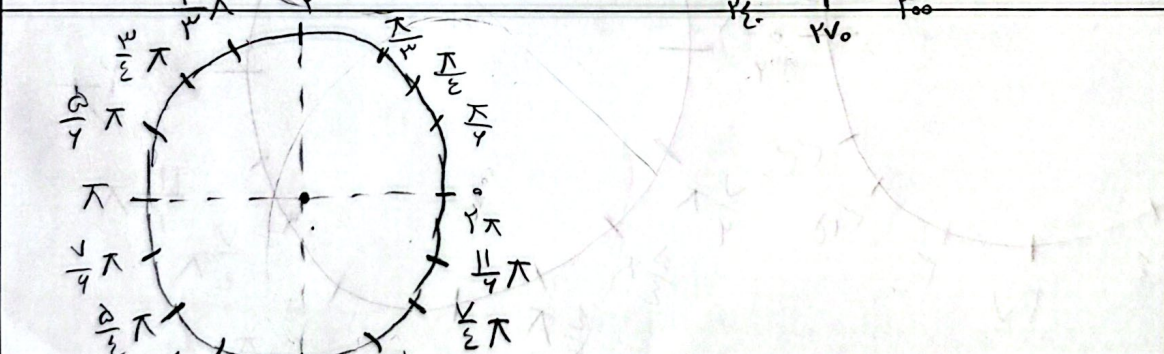
ج) $x^2 - 2$



د) $y = x^2 + 1$



* سوال ۵ و ۶، اجاب به جا نمي

الف) $y = \sqrt[n]{x}$ ب) $y = \sqrt[n]{-x}$ ج) $y = \frac{1}{x^n}$ د) $y = \frac{1}{x^n}$		٦
الف) $y = -\sqrt[n]{x}$ ب) $y = \sqrt[n]{-x}$ ج) $y = -\sqrt[n]{-x}$ د) $y = -\sqrt[n]{x} + 2$		٧
	٨	
	٩	
الف) $\cos 120^\circ = -\frac{1}{2}$ ب) $\sin 120^\circ = \frac{1}{2}$	١٠	

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

د) $\sin \frac{11\pi}{4} = -\frac{1}{2}$