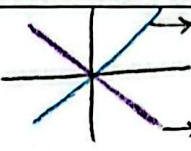


$$\{(1, \underline{4a}), (1, \underline{a^2+3}), (2, \underline{3a})\} \rightarrow \underline{4a} = \underline{a^2+3} \rightarrow \underline{a^2 - 4a + 3 = 0} \rightarrow (a-1)(a-3) = 0$$

$$\{(1, 4), (2, 3)\} \subseteq \{(1, 12), (2, 9)\}$$

۱

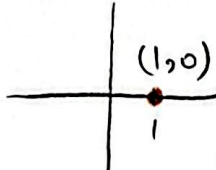
الف) $|y| = |x| \rightarrow y = x \cup y = -x$



خط عمود بر محورهای مختصات
محله دو تابع X

۲

ب) $|y| + \sqrt{x-1} = 0$
 $x=1 \leftarrow$ هر دو صفر



تابع $\sqrt{x-1}$

الف) $|y-1| = \sqrt{x-2} \xrightarrow{x=4} y-1 = \pm \sqrt{4-2} = \pm \sqrt{2} \rightarrow y = 1 \pm \sqrt{2}$

ب) $y^4 - y = \frac{x^2}{4} \xrightarrow{x=0} y(y^3 - 1) = 0 \rightarrow y = 0, \pm 1 \times$

ج) $\sin^2 x + \cos^2 y = 1 \xrightarrow{x=\frac{\pi}{2}} 1 + \cos^2 y = 1 \rightarrow \cos^2 y = 0 \rightarrow y = \pm \pi \times^3$

د) $2xy = x \rightarrow 2xy - x = 0 \rightarrow x(2y-1) = 0 \xrightarrow{x \neq 0} 2y-1=0 \rightarrow y = \frac{1}{2}$
 خط عمود بر محورهای مختصات

۴

الف) $x^2 + |y-1| = 2x \rightarrow |y-1| = 2x - x^2 \xrightarrow{x=1} |y-1| = 1$
 $y-1 = \pm 1 \rightarrow y = 2 \cup y = 0 \rightarrow y = -2 \times$

ب) $y^3 + 3x = 0 \rightarrow y^3 = -3x \xrightarrow{x=0} y^3 = 0 \rightarrow y = 0$ تابع $\sqrt[3]{x}$

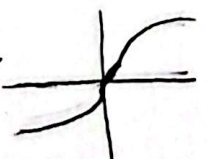
الف) $y = \sqrt[3]{x} \rightarrow$



ج) $y = \frac{1}{x^3} \rightarrow$



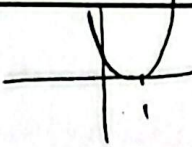
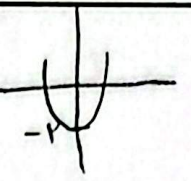
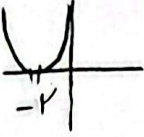
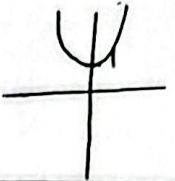
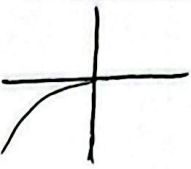
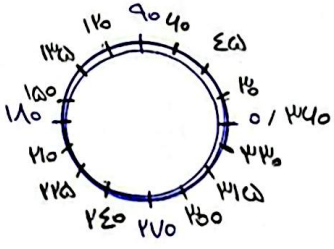
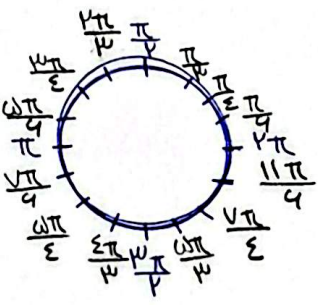
ب) $y = \sqrt[5]{x} \rightarrow$



د) $y = \frac{1}{x^2} \rightarrow$



۵

الف) $y = (x-1)^2 \rightarrow$ 	ج) $y = x^2 - 2 \rightarrow$ 	۶
ب) $y = (x+2)^2 \rightarrow$ 	د) $x^2 + 1 \rightarrow$ 	
الف) $y = -\sqrt{x} \rightarrow$ 	ج) $y = -\sqrt{-x} \rightarrow$ 	۷
ب) $y = \sqrt{-x} \rightarrow$ 	د) $y = -\sqrt{x} + 2 \rightarrow$ 	
		زوایای معروف ۸
		بر حسب رادیان ۹
الف) $\cos 120^\circ = -\frac{1}{2}$ ب) $\sin 120^\circ = \frac{1}{2}$ ج) $\cos \frac{5\pi}{3} = \frac{1}{2}$ د) $\sin \frac{11\pi}{4} = -\frac{1}{2}$		۱۰