

$$\{(1, 4a), (1, a^2+3), (2, 3a)\}$$

$$4a+a^2=3 \rightarrow a^2+4a-3=0 \quad (a+3)(a-1) \rightarrow a=-3 \quad a=1$$

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

ب) $|y| = -\sqrt{x-1}$

$|y| = -\sqrt{x-1} \rightarrow$ چون قدر مطلق مثبتی نمی شود.

الف) $|y-1| = \sqrt{x-2} \quad (x=3) \quad y-1=3 \rightarrow y=4$
 $-y+1=3 \rightarrow y=-2$ (تابع نیست)

ب) $x=0 \quad y^2-y=0 \rightarrow y(y-1)=0 \rightarrow y=0, y=1$ (تابع نیست)

ج) $\sin^2 x + \cos^2 \frac{y}{2} = 1 \quad \sin^2 x = 1 \quad \cos^2 \frac{y}{2} = 0$

د) $\frac{y}{n} = \frac{x}{n} \rightarrow x=1 \rightarrow y=1$
 $\frac{y}{n} = \frac{x}{n} \rightarrow x=0 \rightarrow y=0$ (تابع است)

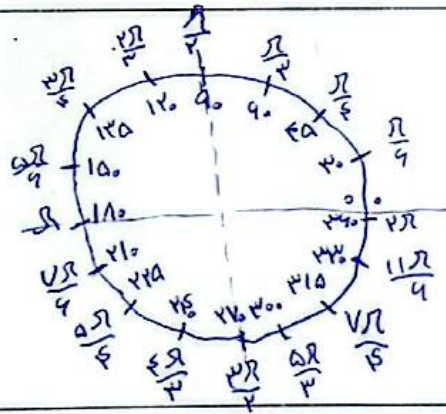
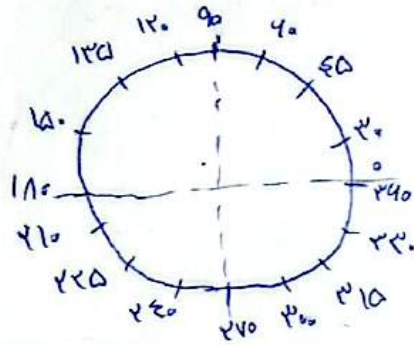
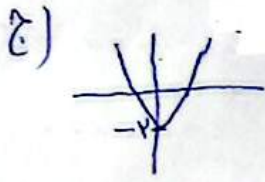
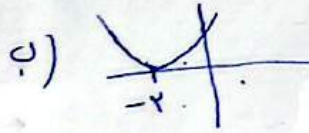
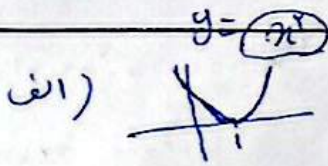
$x^2 + |y-1| = 4x$
 $x^2+y-1=4x \rightarrow x^2+y+1=4 \rightarrow x=1 \rightarrow y=3$
 $x^2-y+1=4x \rightarrow x^2-4x+1=y \rightarrow x=1 \rightarrow y=-2$

$y^2+3x=0$ صحیح

$x=0 \rightarrow y^2=0 \Rightarrow y=0$

الف) ب) ج)

د)



$$\cos 135^\circ: -\frac{1}{\sqrt{2}}$$

$$\sin 135^\circ: \frac{1}{\sqrt{2}}$$

$$\cos \left(\frac{5\pi}{4} \right): -\frac{1}{\sqrt{2}}$$

$\downarrow$
 225°

$$\sin \left(\frac{11\pi}{4} \right): -\frac{1}{\sqrt{2}}$$

$\downarrow$
 225°