

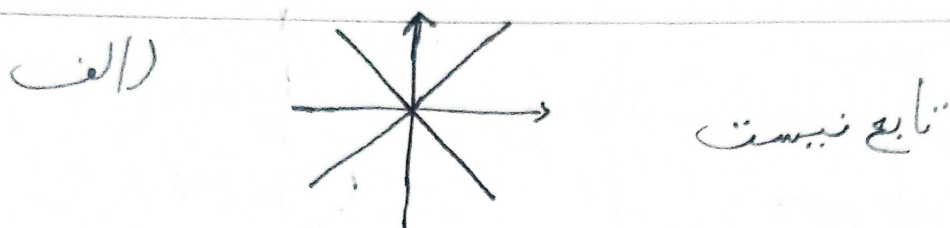
نام و نام خانوادگی: شماره: کلاس: درس: B

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

$$a = 3$$

$$a = 1$$

به ازای مقادیر ۳ و ۱ این رابطه تابع است

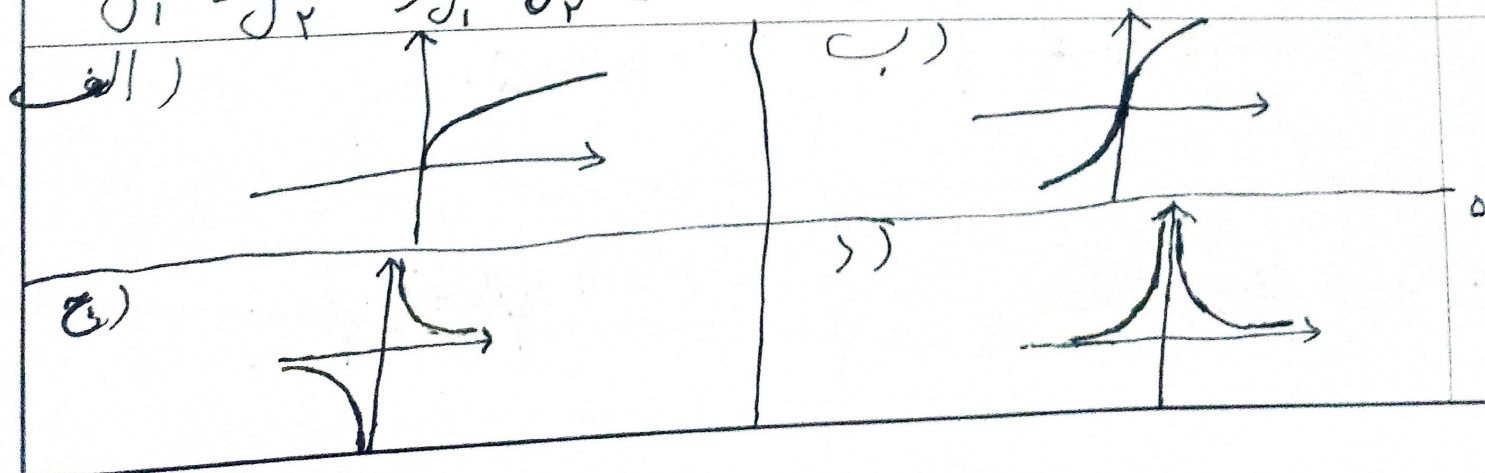


الف) $|y-1| = \sqrt{x-2} \Rightarrow x=6 \Rightarrow |y-1| = \sqrt{4} \Rightarrow |y-1| = 2$
 $y=3$ $y=-1$
 ب) $y^2 - y = \frac{x^2}{4} \Rightarrow x=0 \Rightarrow y^2 - y = 0 \Rightarrow y=0$ $y=1$
 ج) $\sin^2 x + \cos^2 y = 1 \Rightarrow x=90^\circ \Rightarrow \cos^2 y = 0 \Rightarrow y=180^\circ$ $y=0^\circ$
 د) $2xy = x \Rightarrow x=0 \Rightarrow 2y=0 \Rightarrow y=0$

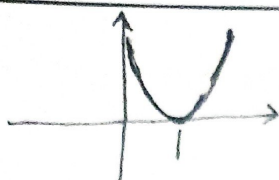
الف) مثال نقض $x^2 + |y-1| = 4x \Rightarrow x=1 \Rightarrow |y-1| = 0$
 $y=1$ $y=-4$ تابع نیست

ب) $x^2 + 3x = 0 \Rightarrow \begin{cases} y_1^2 + 3x_1 = 0 \\ y_2^2 + 3x_2 = 0 \end{cases} \xrightarrow{x_1 = 2x_2} \begin{cases} y_1^2 + 6x_2 = 0 \\ y_2^2 + 3x_2 = 0 \end{cases}$

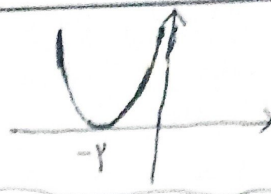
$y_1^2 = y_2^2 \Rightarrow y_1 = y_2$ تابع است



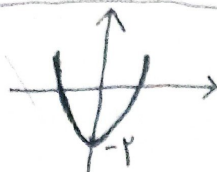
الف)



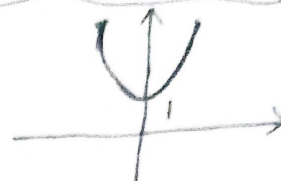
ب)



ج)



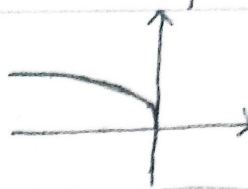
د)



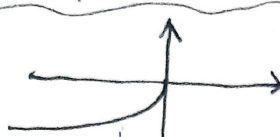
الف)



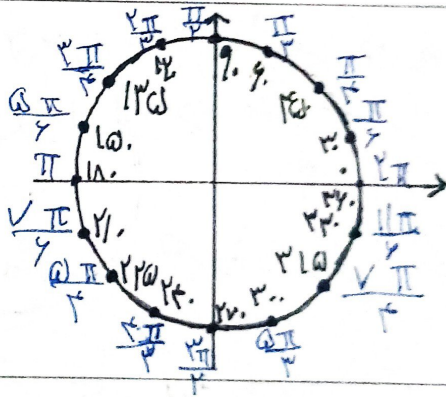
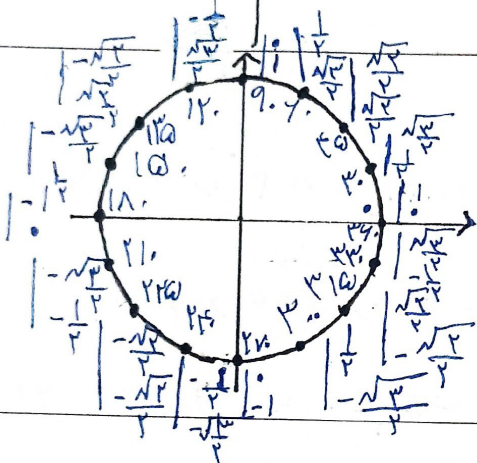
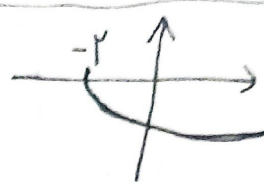
ب)



ج)



د)



الف) $\cos 120^\circ = -\frac{1}{2}$

ب) $\sin 150^\circ = \frac{1}{2}$

ج) $\cos \frac{6\pi}{3} = \frac{1}{2}$

د) $\sin \frac{11\pi}{9} = -\frac{1}{2}$