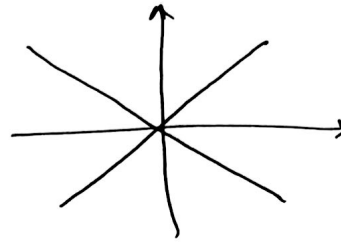
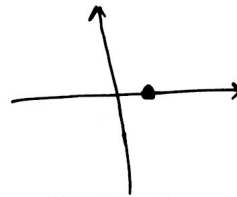


$$a^2 = a^2 + 3 \Rightarrow a^2 - a + 3 = 0 \Rightarrow (a-3)(a-1) = 0 \Rightarrow \begin{cases} a=3 \\ a=1 \end{cases}$$

الف) $|y| = |x| \rightarrow \begin{cases} y=x \\ y=-x \end{cases}$



ب) $|y| + \sqrt{x-1} = 0 \Rightarrow (1, 0)$



الف) $|y-1| = \sqrt{4-x^2} \rightarrow \begin{cases} y=3 \\ y=-1 \end{cases}$

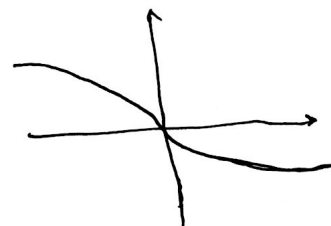
ب) $y^4 - y = 0 \Rightarrow y(y^3 - 1) = 0 \rightarrow y(y^2 - 1)(y^2 + 1) = 0 \rightarrow y(y-1)(y+1)(y^2 + 1) = 0$
 $y = 0, y = 1, y = -1$

ج) $\cos \frac{y}{2} = 1 \rightarrow y = 2k\pi = 4\pi$
 $\rightarrow y = 0$

د) $2(0)y = 0 \Rightarrow 0 = 0 \Rightarrow$ بی نهایت

الف) $4 + |y-1| = 8 \Rightarrow |y-1| = 4 \rightarrow \begin{cases} y=5 \\ y=-3 \end{cases} \Rightarrow$ تابع نیست

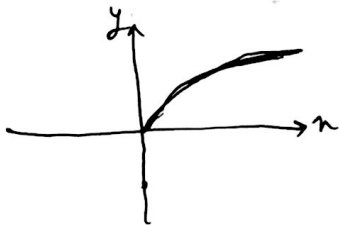
ب) $y^5 + 3x = 0 \Rightarrow y^5 = -3x \Rightarrow y = \sqrt[5]{-3x}$



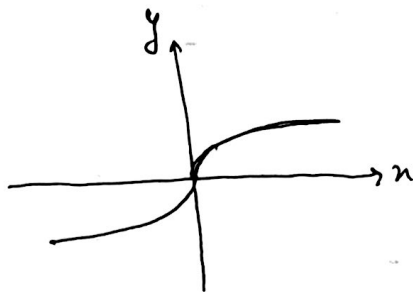
تابع است

- 5

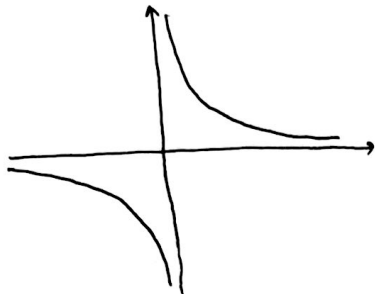
الف)



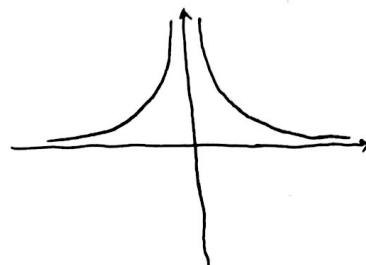
ب)



ج)



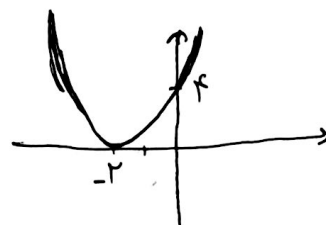
د)



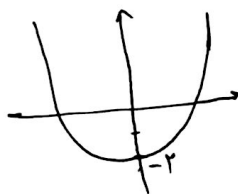
الف)



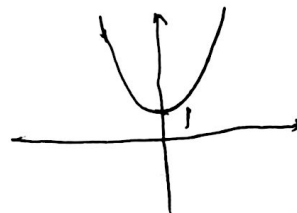
ب)



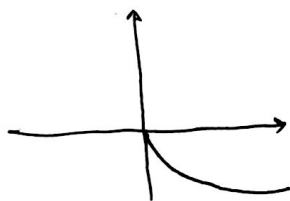
ج)



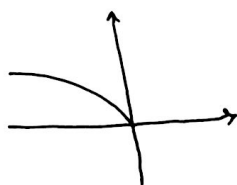
د)



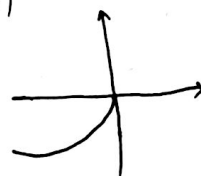
الف)



ب)



ج)

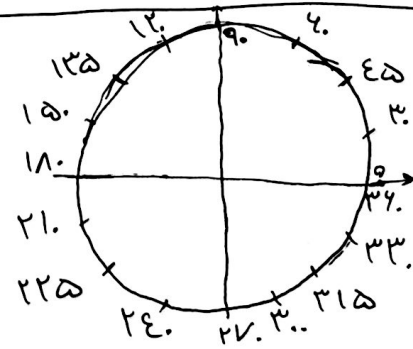
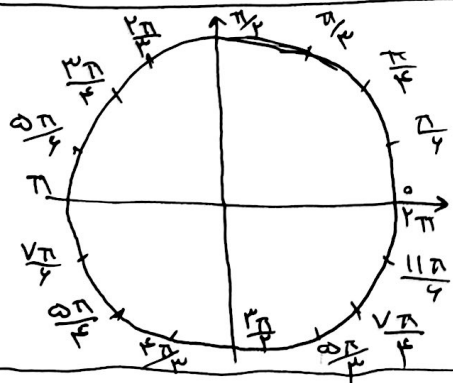


د)



- 7

- 9



- 1

الف) $\frac{1}{y}$

ب) $\frac{1}{y}$

ج) $\frac{1}{y}$

د) $-\frac{1}{y}$

- 1