

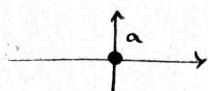
نام و نام خانوادگی: (ایمانا لا اله الا انت سبحانك اني كنت من الظالمين) پاسخنامه تشریحی تکلیف شماره: ۲ کلاس: دفتر: A

$$(1, 4a) \text{ و } (1, a^2 + 3) \Rightarrow 4a = a^2 + 3 \rightarrow -a^2 + 4a - 3 \rightarrow -(a^2 - 4a + 3)$$

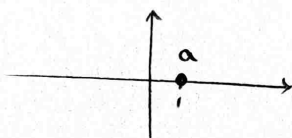
$$-(a-1)(a-3) = 0 \rightarrow \begin{cases} a=1 & \text{اگر } f(1) \rightarrow f_2 \{(1,4), (1,4), (2,3)\} \\ a=3 & \text{اگر } f(3) \rightarrow f_2 \{(1,12), (1,12), (2,9)\} \end{cases}$$

$$a \text{ مقایسه } = 1, 3$$

الف) $\begin{bmatrix} 0 \\ 0 \end{bmatrix} = a$



ب) $\begin{bmatrix} 1 \\ 0 \end{bmatrix} = a$



الف) $n=3$

$$|y-1| = 1 \rightarrow y-1 = \pm 1 \rightarrow \begin{cases} y=2 \\ y=0 \end{cases} \text{ تابع نیست}$$

ب) $y^{\omega} - y = \frac{n^2}{2} \quad n=0$

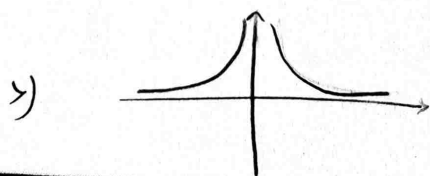
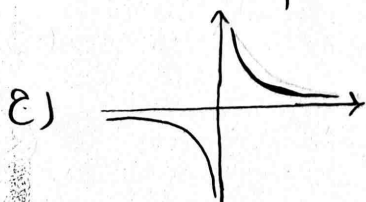
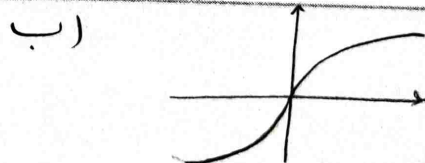
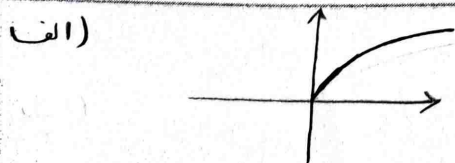
$$y^{\omega} - y = 0 \rightarrow y(y^4 - 1) = 0 \rightarrow y(y^2 - 1)(y^2 + 1) = 0 \rightarrow y(y-1)(y+1)(y^2 + 1) = 0 \rightarrow \begin{cases} y=0 \\ y=1 \\ y=-1 \end{cases} \text{ تابع نیست}$$

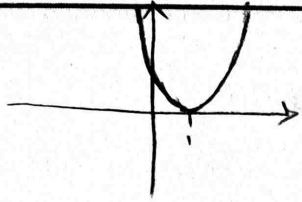
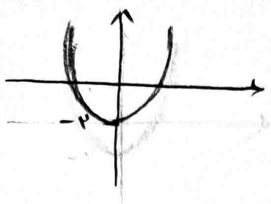
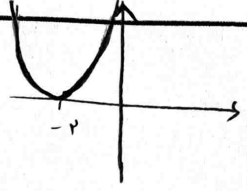
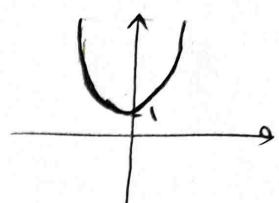
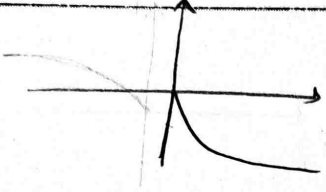
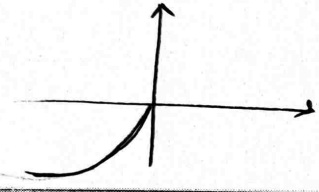
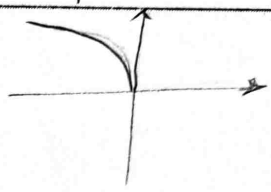
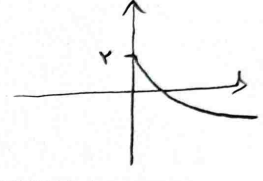
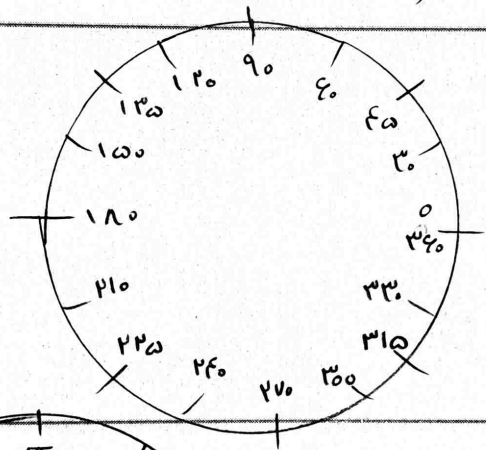
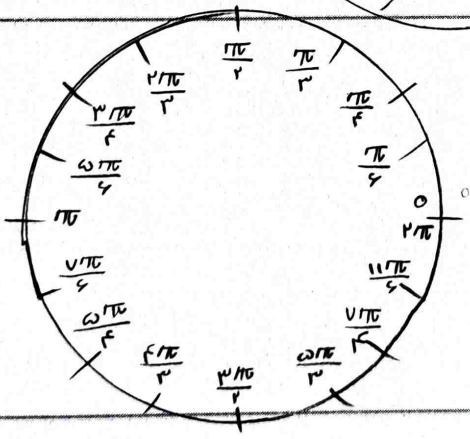
ج) $\cos \frac{y}{2} = 1 - \sin^2 n \rightarrow \cos \frac{y}{2} = \pm 1$
 $y \geq 0 \Rightarrow \begin{cases} y = 2\pi \\ y = \pi \end{cases} \text{ تابع نیست}$

د) $n=0$
 $y(0) y \geq 0 \Rightarrow y \in \mathbb{R}$ شامل همه اعداد

الف) $n^2 - 4n + |y-1| = 0 \rightarrow n(n-4) + |y-1| = 0 \rightarrow \begin{cases} n=0 \\ n=4 \\ y=1 \end{cases} \Rightarrow \begin{matrix} (0,1) \\ (4,1) \end{matrix} \text{ تابع نیست}$

ب) $\begin{cases} y_1^{\omega} + 3n_1 = 0 \\ y_2^{\omega} + 3n_2 = 0 \end{cases} \xrightarrow{n_1=n_2} y_1^{\omega} = y_2^{\omega} \rightarrow y_1 = y_2 \text{ تابع هست}$



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الف) $-\frac{1}{2}$ ع) $\frac{1}{2}$	ب) $\frac{1}{2}$ د) $-\frac{1}{2}$	١٠