

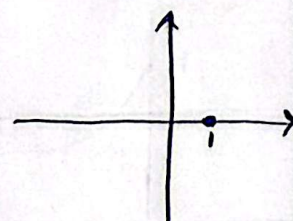
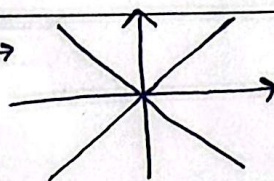
نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۲ کلاس (خبرنامه)

باید عدد یک مختصر به فرد عمل کند

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

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

الف) $|y|=|x| \rightarrow y=x$ یا $y=-x$ تابع نیست



تابع است

ب) دو عبارت مثبت صفر $|y| + \sqrt{x-1} = 0 \rightarrow$ شش پس یعنی $x=1$ و $y=0$ یک نقطه را نشان می دهد

الف) $|y-1| = \sqrt{x-2} \Rightarrow x=3 \Rightarrow |y-1|=1$

$$\begin{cases} y-1=1 \rightarrow y=2 \\ y-1=-1 \rightarrow y=0 \end{cases}$$

ب) $y^5 - y = \frac{x^2}{2} \Rightarrow x=0 \rightarrow y^5 - y = 0 \rightarrow y(y^4-1)=0$

$$\begin{cases} y=0 \\ y=\pm 1 \end{cases}$$

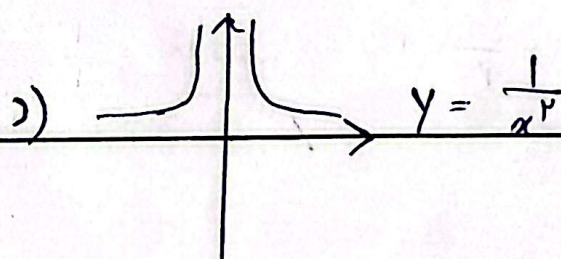
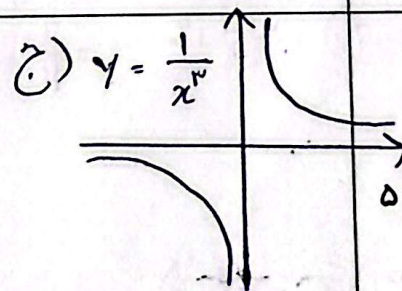
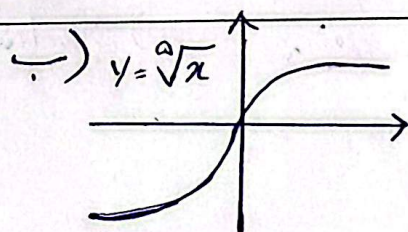
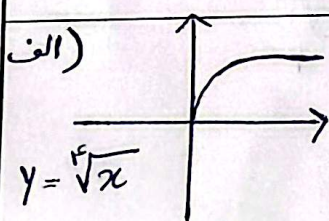
ج) $\sin^2 x + \cos^2 \frac{y}{2} = 1 \rightarrow \sin^2 x = 0 \rightarrow \cos^2 \frac{y}{2} = 1 \rightarrow \cos = \pm 1 \rightarrow y = \pm 2$

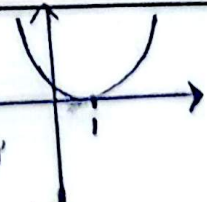
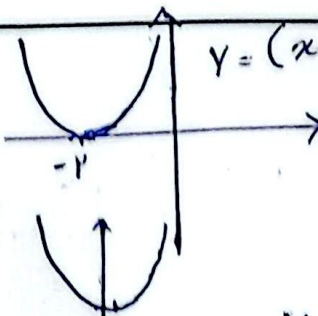
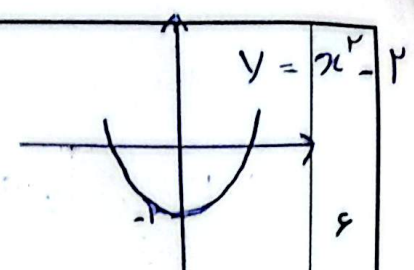
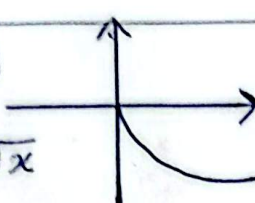
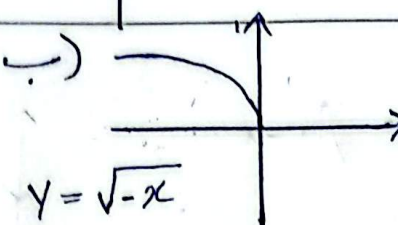
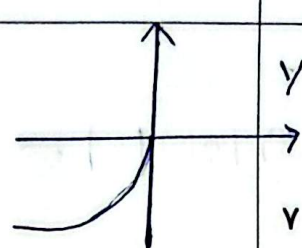
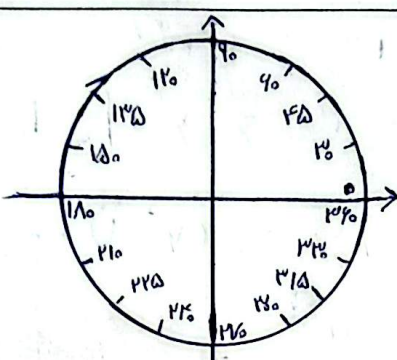
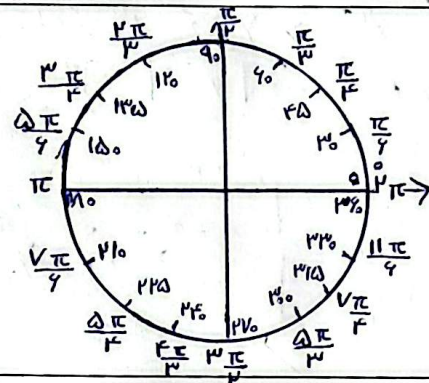
د) $2xy = x \Rightarrow x=0$ اگر y می تواند بی شمار باشد تابع نیست

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

$$\begin{cases} y-1=2 \rightarrow y=3 \\ y-1=-2 \rightarrow y=-1 \end{cases}$$

ب) $y^5 + 3x = 0 \rightarrow \begin{cases} y_1^5 + 3x_1 = 0 \\ y_2^5 + 3x_2 = 0 \end{cases} \xrightarrow{x_1=x_2} y_1^5 = y_2^5 \rightarrow y_1 = y_2$ تابع است



الف)  $y = (x-1)^2$	ب)  $y = (x+2)^2$	ج)  $y = x^2 - 2$	6
الف)  $y = -\sqrt{x}$	ب)  $y = \sqrt{-x}$	ج)  $y = -\sqrt{x} + 2$	7
			8
			9
الف) $\cos 120^\circ = -\frac{1}{2}$ بر اساس دایره مثلثاتی که در بالا رسم شد	ب) $\sin 150^\circ = \frac{1}{2}$		10
ج) $\cos \frac{5\pi}{3} \Rightarrow \frac{5\pi}{3} = 300^\circ \rightarrow \cos 300^\circ = \frac{1}{2}$	د) $\sin \frac{11\pi}{9} = \sin 220^\circ = -\frac{1}{2}$		