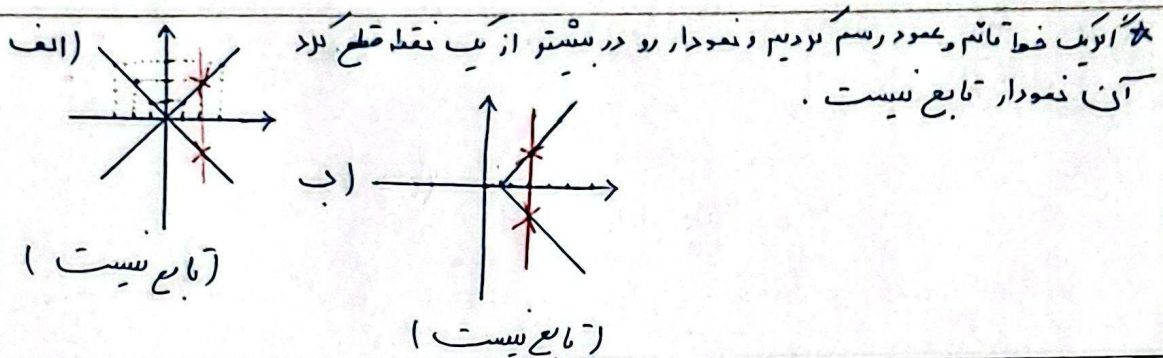
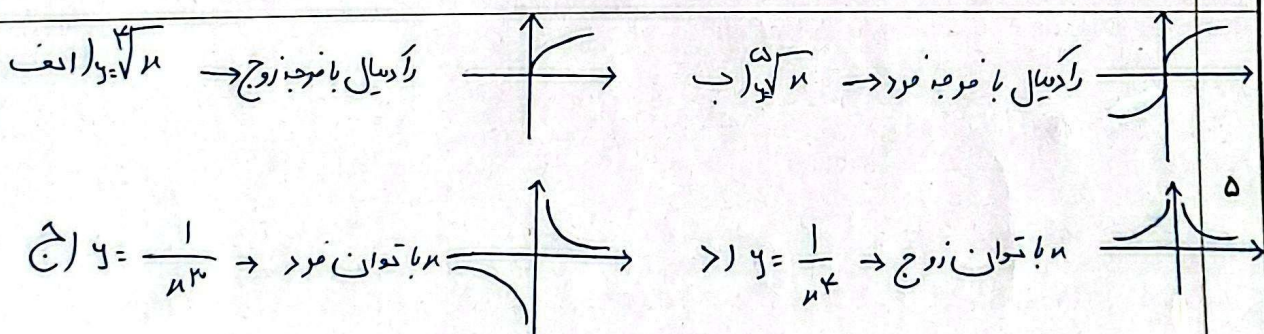


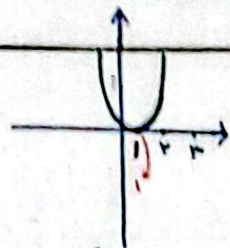
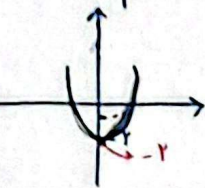
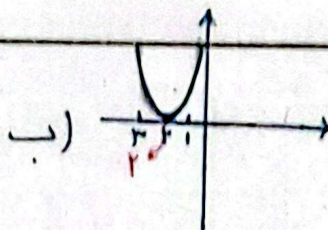
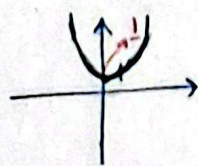
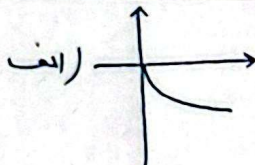
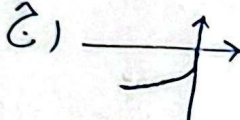
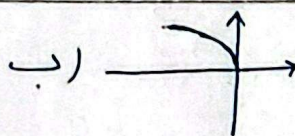
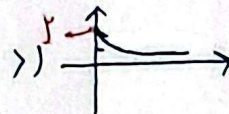
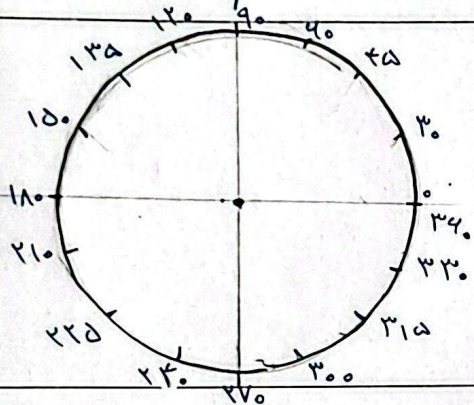
۱. $f = \{(0, 4a) - (1, a^2 + 3) - (2, 3a)\}$ $4a = a^2 + 3 \rightarrow a^2 - 4a + 3 = 0$
 * با افزودن یا بستن معادله را به یک اتحاد مربع کامل تبدیل کنیم. * چون مؤلفه‌های اول تابع است، مؤلفه‌های دوم هم باید بلیسان باشند.
 $a^2 - 4a + 3 = 0 \xrightarrow{+1} a^2 - 4a + 3 = 1$
 $(a-2)^2 = 1^2 \rightarrow a-2=1 \quad (a=3)$



۳. الف) $|y-1| = \sqrt{x-2} \xrightarrow{x=2} |y-1| = \sqrt{0} \rightarrow |y-1| = 0 \rightarrow y-1=0 \rightarrow y=1$
 $|y-1| = 2 \rightarrow y-1=2 \rightarrow y=3$
 $|y-1| = 2 \rightarrow -y+1=2 \rightarrow -y=1 \rightarrow y=-1$
 ب) $y^5 - y = \frac{x^2}{4} \xrightarrow{x=0} y^5 - y = 0 \rightarrow y(y^4 - 1) = 0 \rightarrow y=0$
 $y^4 - 1 = 0 \rightarrow y^4 = 1 \rightarrow y=1$
 ج) $\sin^2 x + \cos^2 \frac{y}{4} = 1 \xrightarrow{x=0} 0 + \cos^2 \frac{y}{4} = 1 \rightarrow \cos^2 \frac{y}{4} = 1$
 $\cos \frac{y}{4} = 1 \rightarrow \frac{y}{4} = 0 \rightarrow y=0$
 $\cos \frac{y}{4} = -1 \rightarrow \frac{y}{4} = \pi \rightarrow y=4\pi$
 د) $2xy = x \xrightarrow{x=0} 0=0$ بی‌نهایت جواب دارد. * هر دو طرف تساوی صفر می‌شود پس بی‌نهایت جواب دارد.

۴. الف) $x^2 + |y-1| = 4x \xrightarrow{x=1} 1 + |y-1| = 4 \rightarrow |y-1| = 3$
 $|y-1| = 3 \rightarrow y-1=3 \rightarrow y=4$
 $|y-1| = 3 \rightarrow -y+1=3 \rightarrow -y=2 \rightarrow y=-2$
 ب) $y^5 + 3x = 0 \xrightarrow{x=0} y^5 = 0 \rightarrow y=0$ (تابع هست)



الف)  ج) 	ب)  د) 	٦
الف)  ج) 	ب)  د) 	٧
		٨