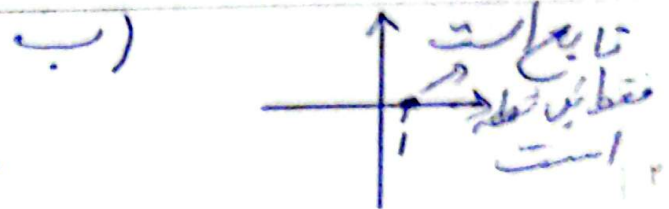
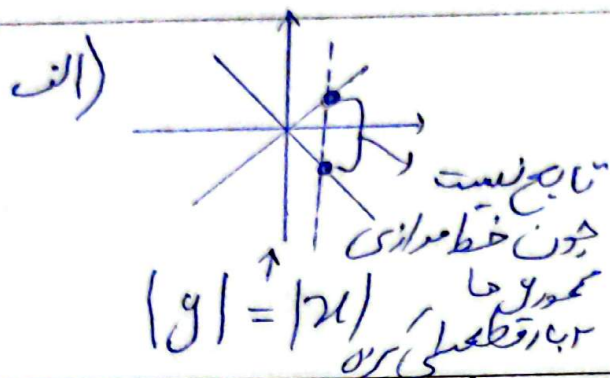


$$a^2 + 3 = 4a \rightarrow a^2 + 3 - 4a = 0 \rightarrow (a-2)(a-1) = 0$$

$$\Rightarrow \begin{cases} a=2 \\ a=1 \end{cases} \Rightarrow \{(2, 4), (1, 4)\} \\ \Rightarrow \{(1, 2), (1, 12), (2, 9)\}$$



$$|y| + \sqrt{x-2} = 0$$

(الف) $|y-1| = \sqrt{x-2}$

$$y-1 = \pm \sqrt{x-2}$$

$$y = 1 \pm \sqrt{x-2}$$

$\Rightarrow u=2 \rightarrow y = 1 \pm 1 \rightarrow y=0 \text{ و } y=2$

(ب) $y^2 - y = \frac{x^2}{4}$

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

$y=0, y=1, x=0$
تابع نیست

ج) $\sin^2 u + \cos^2 \frac{y}{r} = 1 \rightarrow u=90^\circ \text{ و } y=0$

د) $ruy = x \rightarrow u=0 \rightarrow y=R$

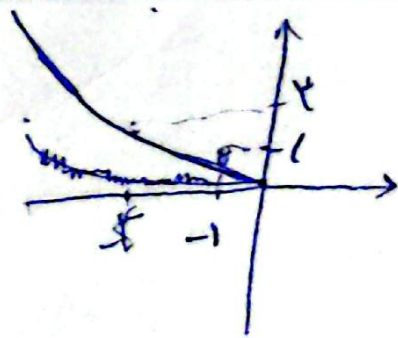
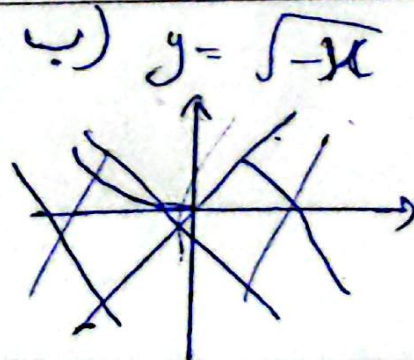
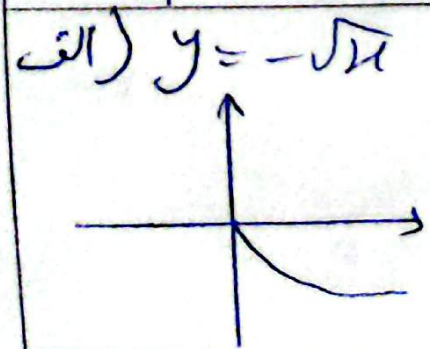
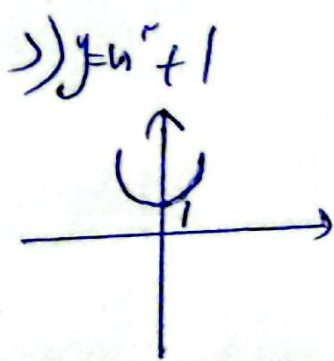
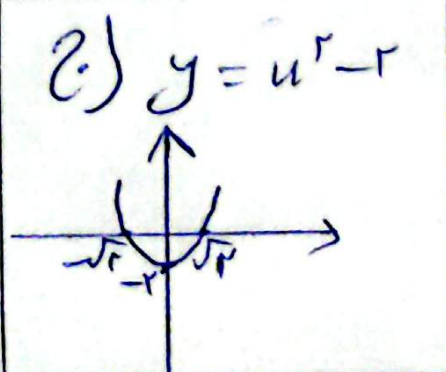
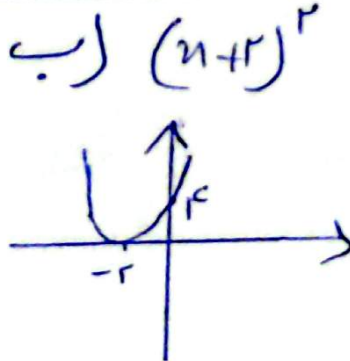
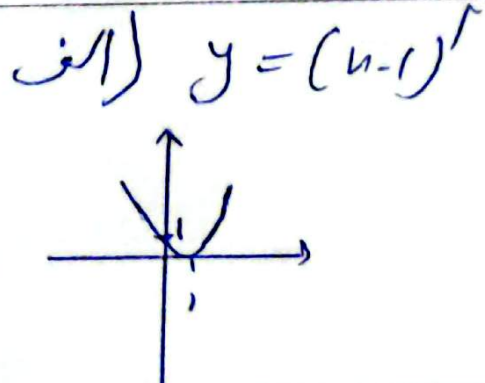
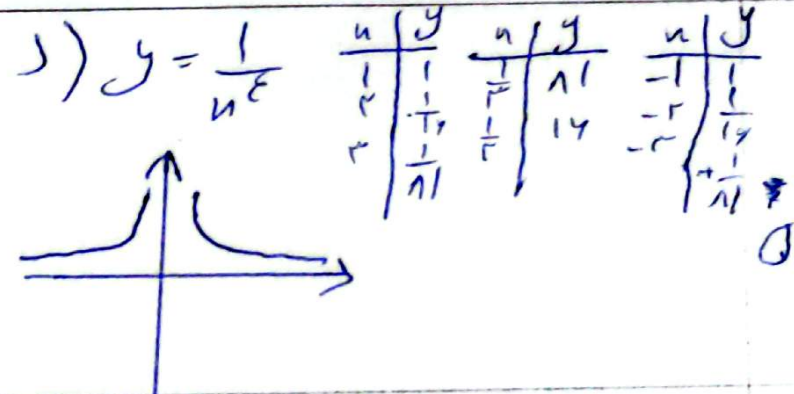
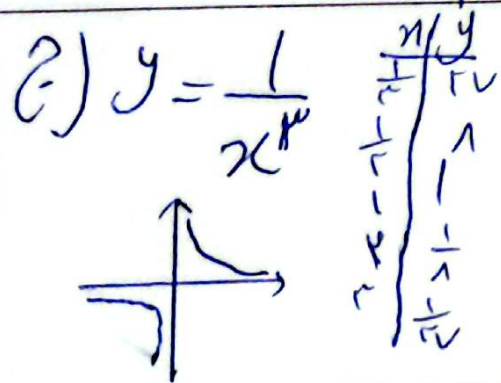
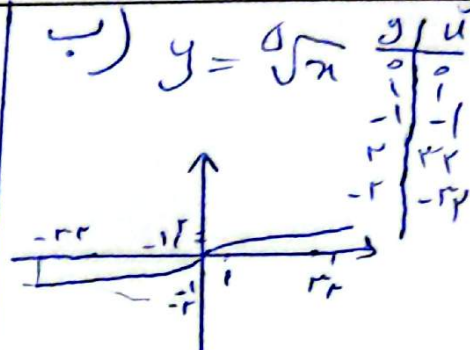
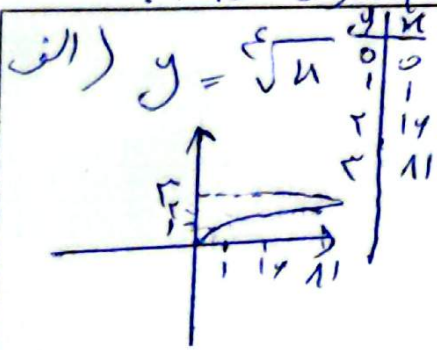
جواب: برای هر دو محور را

(الف) $u^2 + (y-1) = 4u \rightarrow |y-1| = 4u - u^2 \rightarrow y-1 = \pm(4u - u^2)$

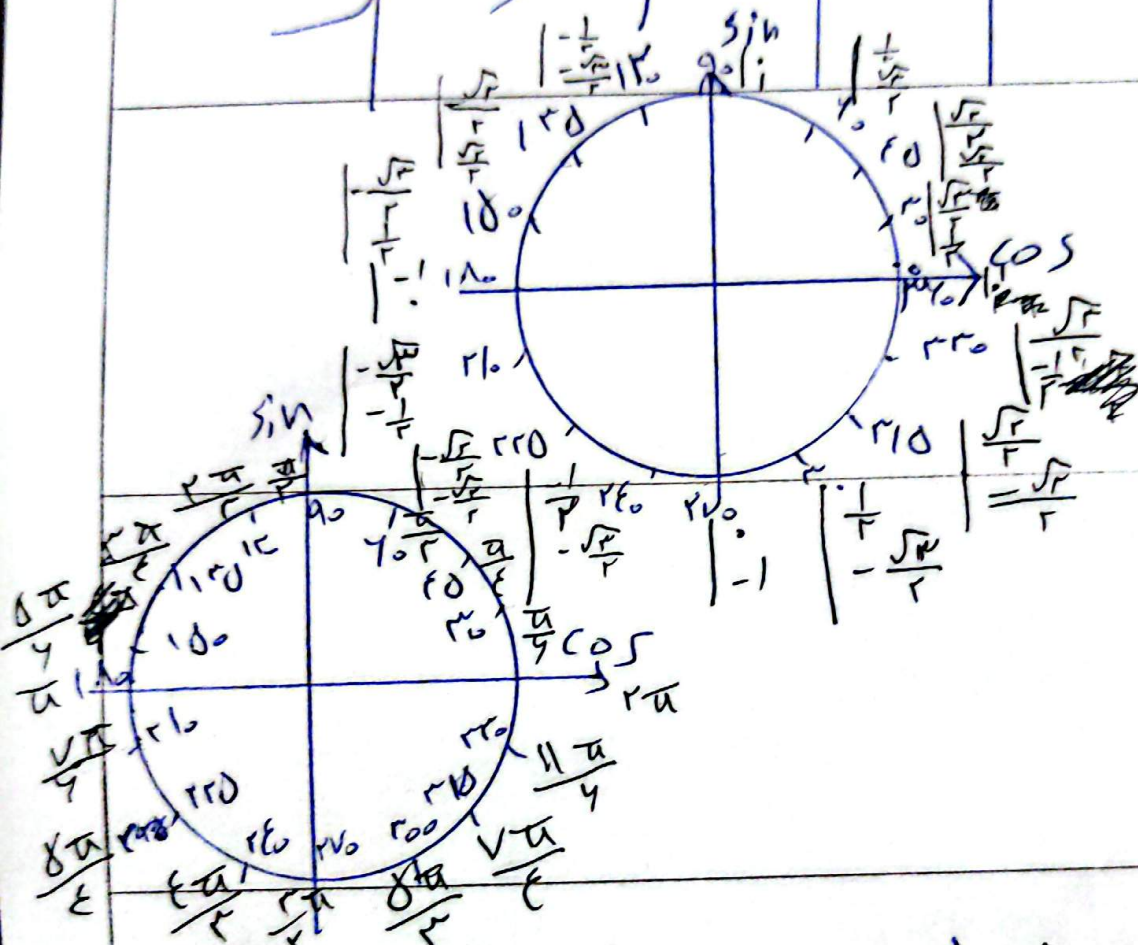
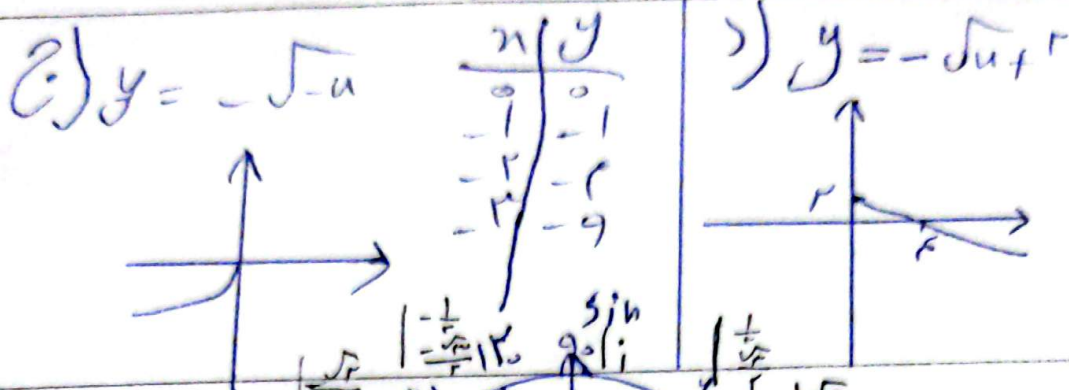
$y = 1 \pm (4u - u^2) \rightarrow u=2 \rightarrow y=4$

(ب) $y^2 + 2u = 0 \rightarrow y_1^2 + 2u_1 = 0$
 $y_2^2 + 2u_2 = 0$

$y_1 = y_2$
تابع نیست



برهان شریانی تکلیف ۲: رسم دایره B چنانکه



الف) $\cos 150^\circ = -\frac{1}{2}$

ب) $\sin 150^\circ = \frac{1}{2}$

ج) $\cos \frac{5\pi}{3} = \frac{1}{2}$

د) $\sin \frac{11\pi}{4} = -\frac{1}{2}$