

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

$$f_a = a^2 + 3$$

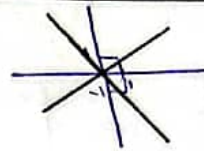
$$a^2 - f_a + 3 = 0$$

$$(a-1)(a-3) = 0$$

$$a = 1, 3$$

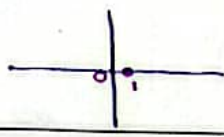
$$|y| = |x|$$

$$|y| = 2 \quad |y| = |1-3|$$



$$|y| + \sqrt{x-1} = 0$$

$$x=1, y=0$$



$$|y-1| = \sqrt{x-2} \rightarrow x=4, y=1$$

$$|y-1| = 2 \rightarrow y=3, y=-1$$

$$y^5 - y = \frac{x^2}{2}$$

$$y^5 - y - \frac{x^2}{2} = 0$$

$$y^2(y-1) - \frac{x^2}{2} = 0$$

$$\sin^2 x + \cos^2 \frac{y}{2} = 1$$

$$2xy = x$$

$$x=0, y=R$$

$$x^2 + |y-1| = f(x)$$

$$1 + |y-1| = +2$$

$$y = -3, y = +5$$

$$y^5 + \cos x = 0$$

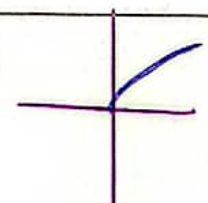
$$y^5 = -3$$

$$y = \sqrt[5]{-3}$$

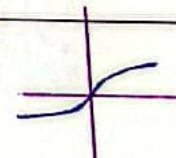
$$y^5 = 0, x=0$$

$$y = \sqrt[4]{x}$$

$$f(x)$$



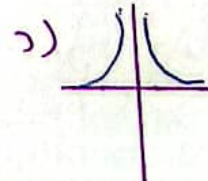
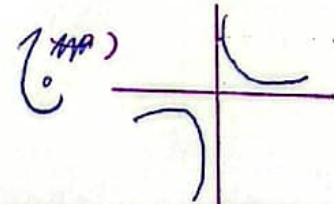
$$f(x)$$

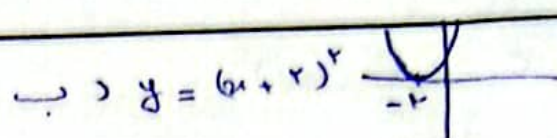
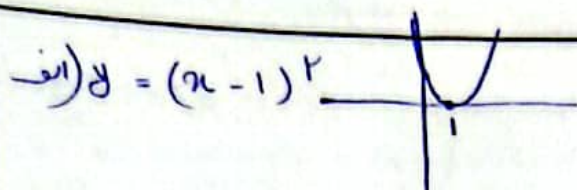


$$y = \sqrt[5]{x}$$

$$y = \frac{1}{x^3}$$

$$y = \frac{1}{x^4}$$





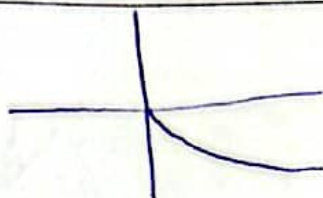
ج) $y = x^2 - 2$



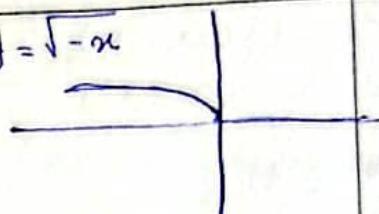
د) $y = x^2 + 1$



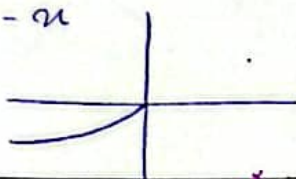
الف) $y = -\sqrt{x}$



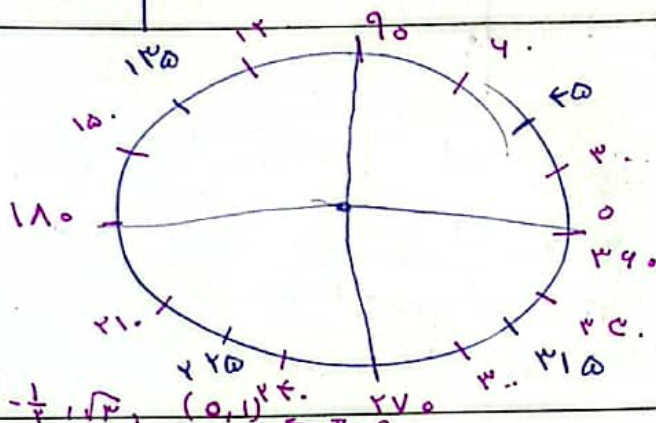
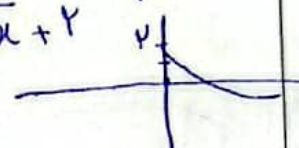
ب) $y = \sqrt{-x}$



ج) $y = -\sqrt{-x}$



د) $y = -\sqrt{x} + 2$



$\frac{3\pi}{4} \rightarrow (-\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2})$

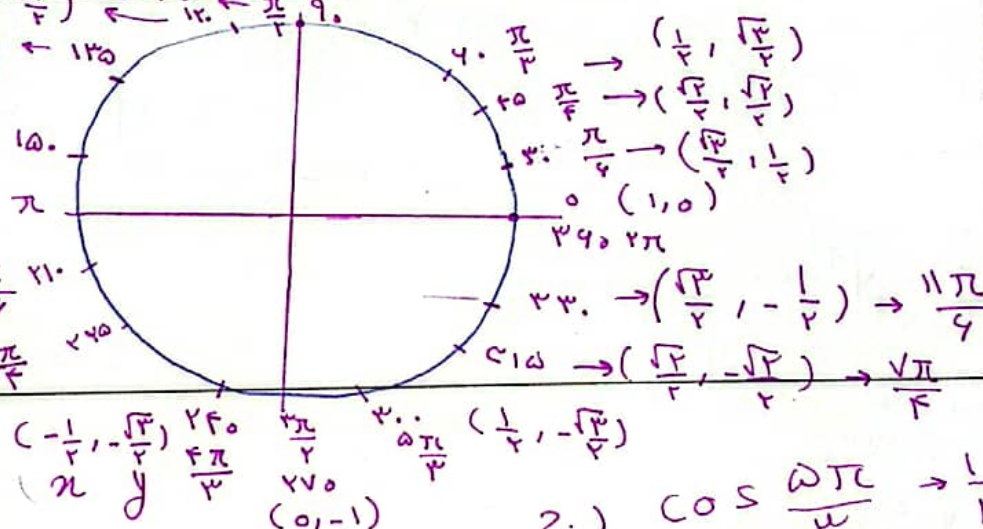
$(\frac{\sqrt{2}}{2}, \frac{1}{2}) \leftarrow \frac{\pi}{6}$

$(\frac{\sqrt{2}}{2}, -\frac{1}{2}) \leftarrow \frac{5\pi}{6}$

$(-1, 0) \leftarrow \pi$

$(-\frac{\sqrt{2}}{2}, \frac{1}{2}) \leftarrow \frac{7\pi}{6}$

$(-\frac{\sqrt{2}}{2}, -\frac{1}{2}) \leftarrow \frac{5\pi}{4}$



الف) $\cos 180^\circ$
 $(-\frac{1}{1})$

ب) $\sin 180^\circ = 0$

ج) $\cos \frac{5\pi}{6} \rightarrow -\frac{\sqrt{3}}{2}$

د) $\sin \frac{11\pi}{6} = -\frac{1}{2}$