

$$f_a = a^2 + 3$$

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

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

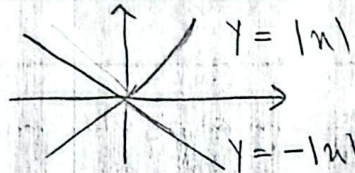
$$\downarrow \boxed{3}$$

$$\downarrow \boxed{1}$$

$$a=3 \text{ و } a=1$$

الف) $|y| = |x|$

$$y = \pm |x|$$



تابع نسبت

ب) $|y| + \sqrt{x-1} = 0$

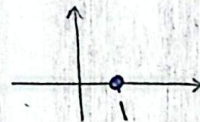
$$|y| \geq 0 \quad \sqrt{x-1} \geq 0$$

$$y=0$$

$$x-1 \geq 0$$

$$x \geq 1$$

(1,0)



تابع است

الف) $x=3 \rightarrow |y-1|=1 \rightarrow y-1 = \pm 1 \rightarrow y=1-1=0$

$$y=1+1=2$$

ب) $x=0 \rightarrow y(y^4-1)=0$

$$y=1 \text{ و } -1$$

ج) $x=0 \rightarrow \cos^2 \frac{y}{2} = 1 \rightarrow y=0, 360^\circ, 180^\circ, \dots$

د) $x=0 \quad y(0) y = 0 \rightarrow y = 0$ هر مقداری از y قابل قبول

الف) $|y-1| = \sqrt{x-x^2} \rightarrow y-1 = \pm (\sqrt{x-x^2})$

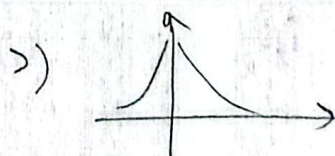
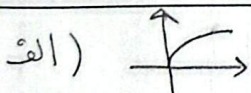
$$\begin{cases} y = 1 - (\sqrt{x-x^2}) \\ y = 1 + (\sqrt{x-x^2}) \end{cases}$$

تابع نسبت

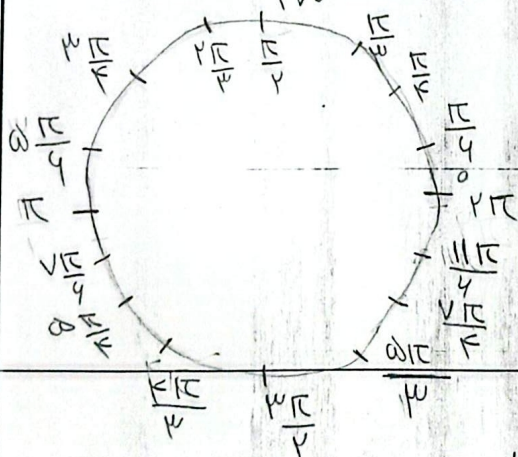
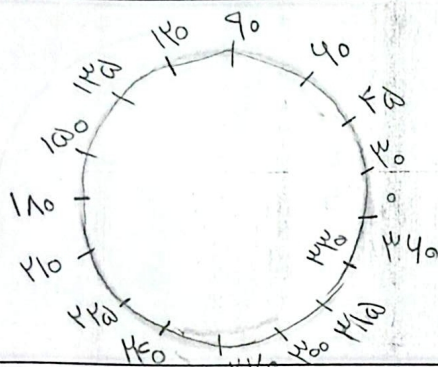
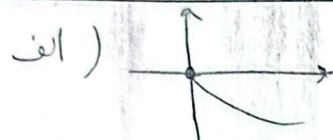
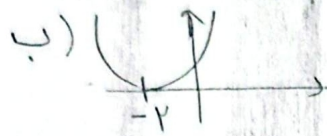
ب) $y^5 = -3x$

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

تابع است



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الف) $-\frac{1}{2}$

ب) $= \frac{1}{2}$

ج) $\frac{1}{2}$

د) $-\frac{1}{2}$