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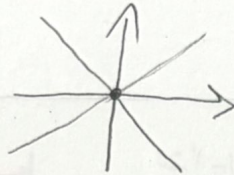
$$fa = a^2 + 3 \rightarrow a^2 - fa + 3 = 0 \rightarrow (a-1)(a-3) = 0$$

$$\boxed{a=1}, \boxed{a=3}$$

(۲) ✓

الف) $|y| = |x|$

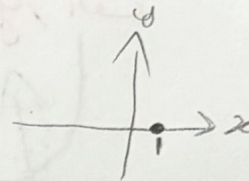
$y = x$ $y = -x$



X

ب) $|y| + \sqrt{x-1} = 0$

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



✓

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

$y-1=-1 \Rightarrow y=0$

ب) $y - y = \frac{x}{y}$

$y(y-1)=0 \rightarrow y=0, y=1, y=-1$ X

ج) $\sin^2 x + \cos^2 y = 1$

$\cos \frac{y}{2} = \pm 1$ $y=0$ $y=\pi$ X

د) $2xy = x$ $x(2y-1)=0$

$\rightarrow y=0$ $y=\frac{1}{2}$

الف) $x^2 + |y-1| = 4x$

$|y-1| = 4x - x^2 \rightarrow y-1 = \pm (4x - x^2) \rightarrow y = 1 + (4x - x^2)$ X تابع نیست

$x=1 \rightarrow |y-1|=3 \rightarrow y-1=3 \rightarrow y=4$

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

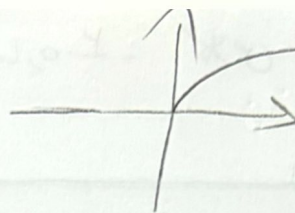
مثال نقی بنزل

ب) $y^2 + 3x = 0$

$y^2 = -3x \rightarrow y = \sqrt{-3x}$ ✓

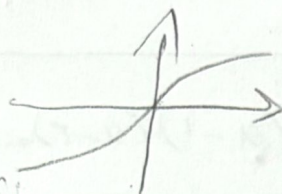
تابع است

الف) $y = \sqrt{x}$

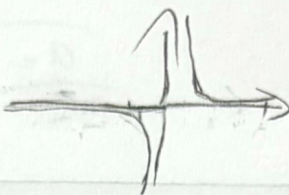


✓

ب) $y = \sqrt[3]{x}$

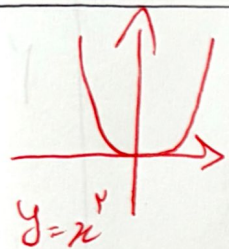
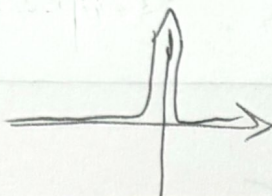


ج) $y = \frac{1}{x^3}$

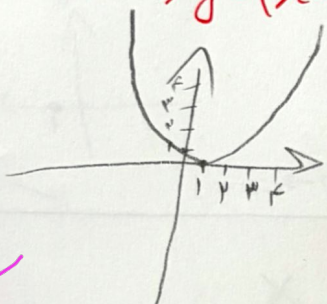


Ⓟ ✓

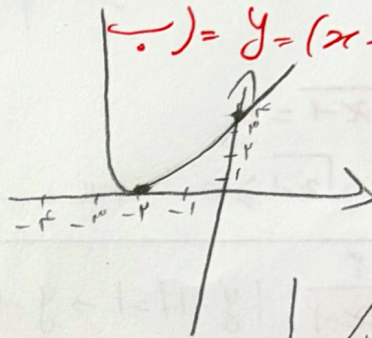
د) $y = \frac{1}{x^4}$



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

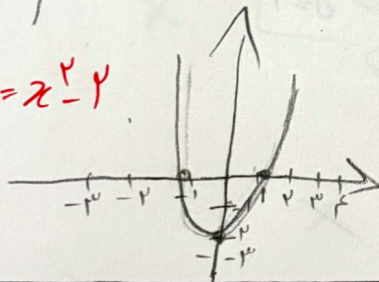


ب) $y = (x+2)^2$

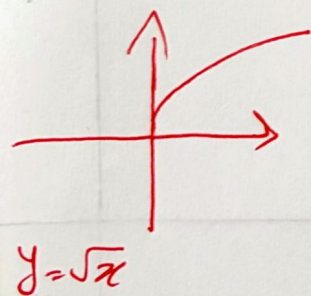
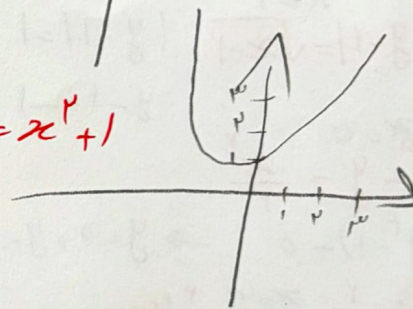


Ⓟ ✓

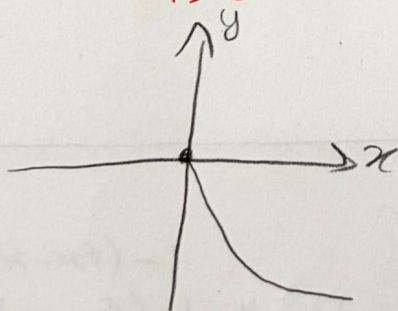
ج) $y = x^2 - 2$



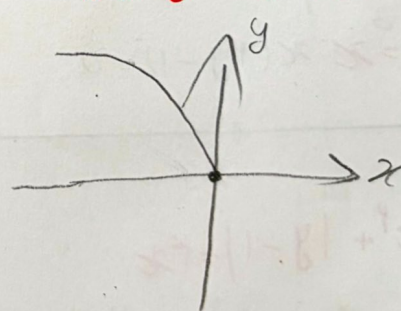
د) $y = x^2 + 1$



الف) $y = -\sqrt{x}$

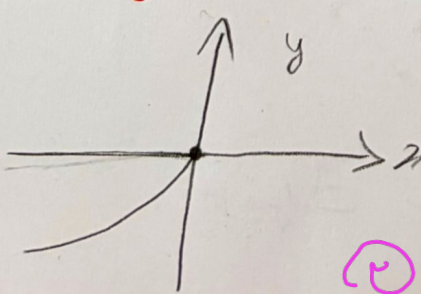


ب) $y = \sqrt{-x}$



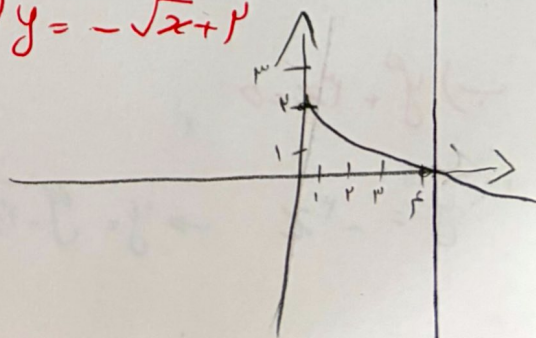
✓

ج) $y = -\sqrt{-x}$



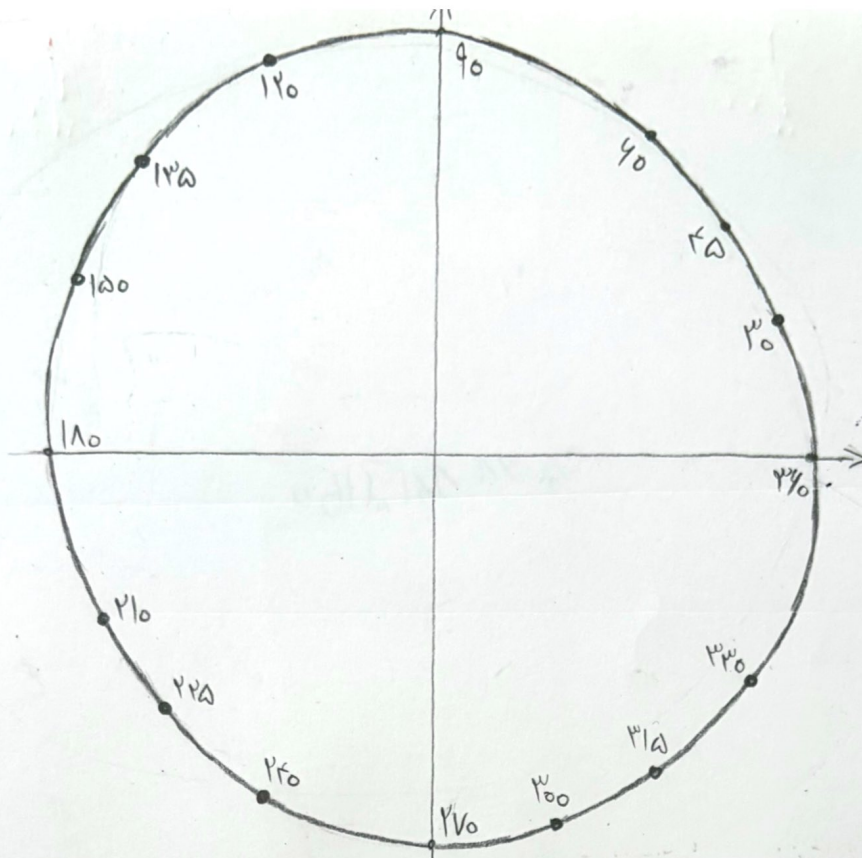
Ⓟ ✓

د) $y = -\sqrt{x} + 1$



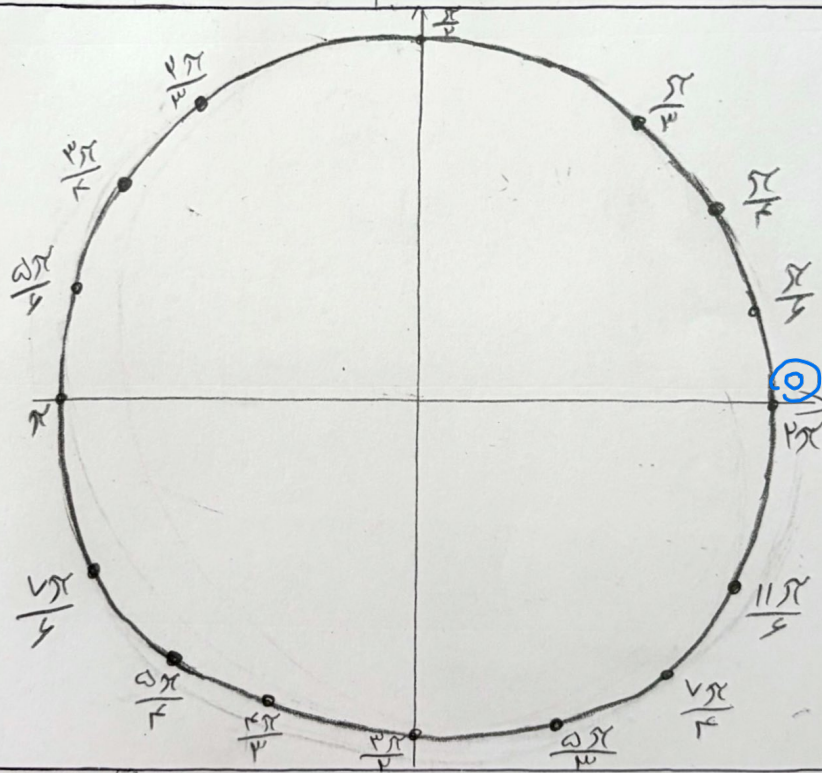
7

Ⓢ✓



9

1, 1, 1, 1



الف) $\cos 120^\circ = -\frac{1}{2}$

ب) $\sin 45^\circ = \frac{1}{2}$

10

Ⓢ✓

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

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