

$$fa = a^2 + 3$$

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

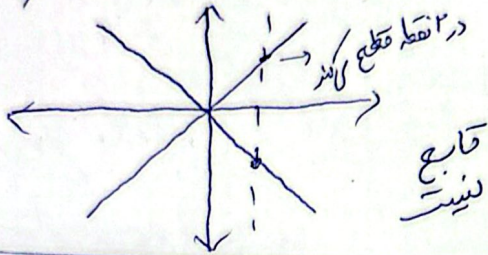
جمع ضرایب صفر است

$$1, \frac{c}{a} = -\frac{3}{-1} = 3$$

۱, ۳

$$|y| = |x| \text{ زائف}$$

$$y = x \text{ و } y = -x$$



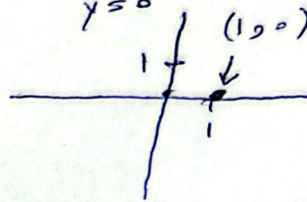
$$b = |y| + \sqrt{x-1} = 0$$

هر دو باید صفر باشند

$$\begin{aligned} x-1 &= 0 \\ x &= 1 \\ y &= 0 \end{aligned}$$

تابع یک نقطه

تابع هست



$$|y-1| = \sqrt{x-2} \text{ زائف}$$

$$x=3$$

$$|y-1| = \sqrt{1}$$

$$|y-1| = 1$$

$$y-1 = 1 \Rightarrow y = 2$$

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

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

$$x=0$$

$$y^5 - y = 0 \Rightarrow y(y^4 - 1) = 0$$

$$y = -1, 0, 1$$

$$c) \tan y = x$$

$$x=0$$

$$y = 0, \pi, 2\pi, \dots$$

هر عدد صحیح مضرب ۵

$$ج) \sin^2 x + \cos^2 y = 1$$

$$0 + \cos^2 y = 1$$

$$\cos^2 y = 1$$

$$y = 0, \pi, 2\pi, \dots$$

$$الف) x^2 + |y-1| = 4x$$

$$x=1$$

$$1 + |y-1| = 4$$

$$|y-1| = 3$$

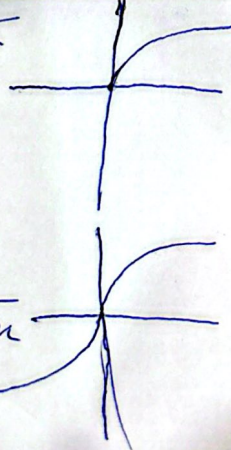
$$y-1 = -3 \Rightarrow y = -2$$

$$y-1 = 3 \Rightarrow y = 4$$

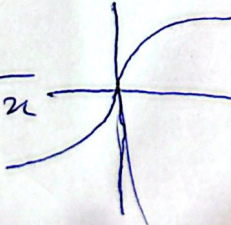
$$b) y^5 + 3x = 0$$

توانیم هر دو طرف را ضرب کنیم
علامت جمع هست پس تابع است

$$الف) y = \sqrt{x}$$



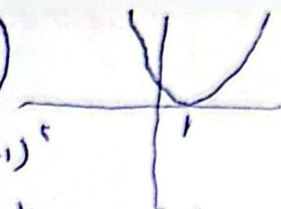
$$ب) y = \sqrt[5]{x}$$



$$ج) y = \frac{1}{x^3}$$

$$د) y = \frac{1}{x^4}$$

الف) $y = (x-1)^2$



ب) $y = (x+1)^2$



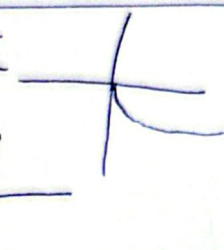
ج) $y = x^2 - 2$



د) $y = x^2 + 1$



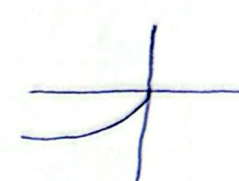
الف) $y = -\sqrt{x}$



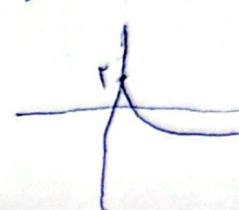
ب) $y = \sqrt{x}$

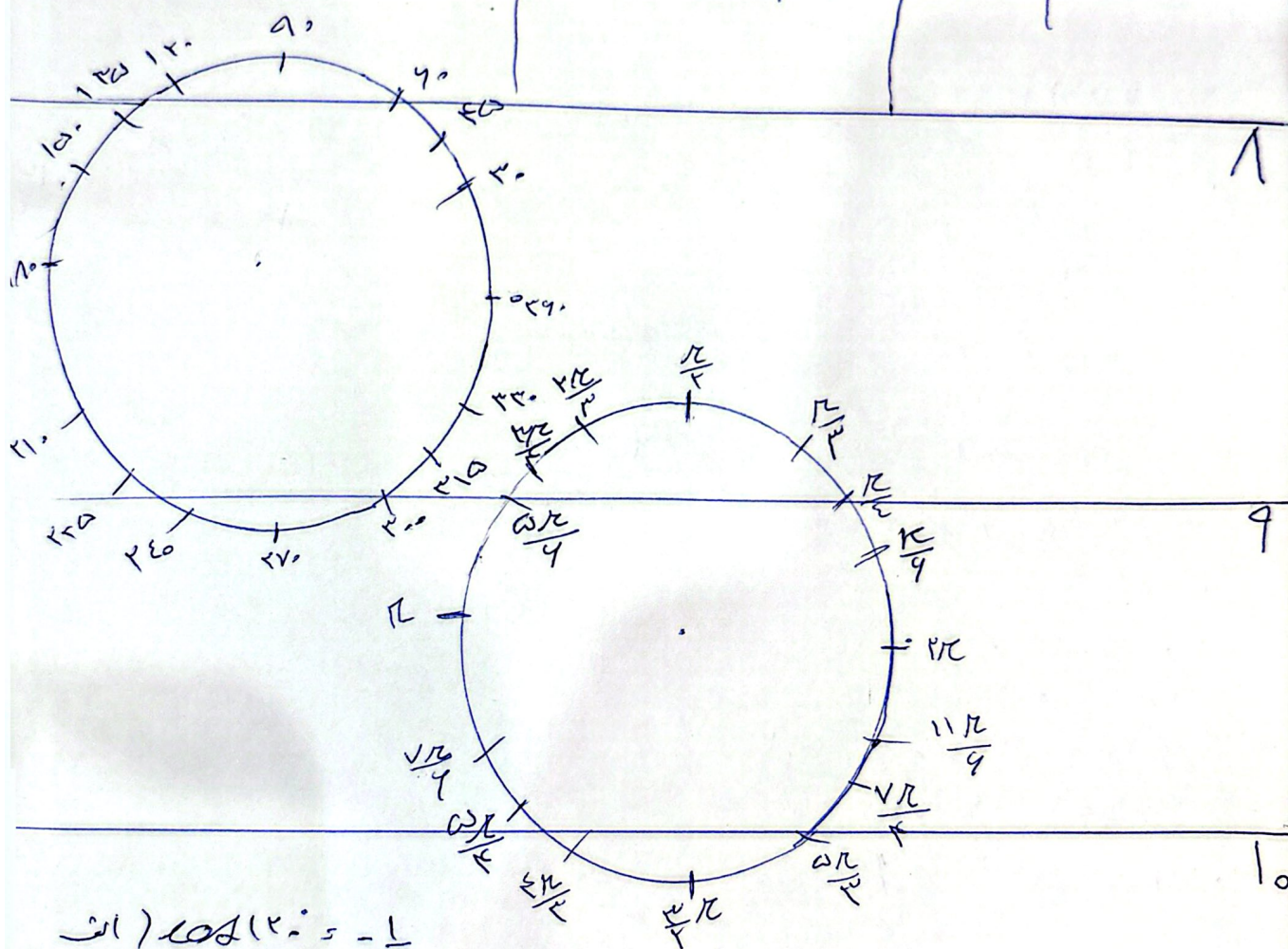


ج) $y = -\sqrt{-x}$



د) $y = \sqrt{-x}$





الف) $\cos(\pi/2) = -\frac{1}{2}$

ب) $\sin(\pi/2) = \frac{1}{2}$

ج) $\cos(\pi/4) = \frac{1}{2}$

د) $\sin(\pi/4) = \frac{1}{2}$