

①

$$g^3 - x = 2x^2 \quad \text{الف)}$$

باسم صفر!

$$g^3 = 2x^2 + x \Rightarrow x(2x+1) = g^3$$

P nobi

تابع است

150

$$|g| + x^3 = x + 3$$

$$|g| = x + 3 - x^3$$

تابع است

$$|g| = 0 + 3 - 0 = |g| = 3 \Rightarrow g = \pm 3$$

صفر + صفر

$$|g| + x^3 = x + 3$$

باسم صفر!

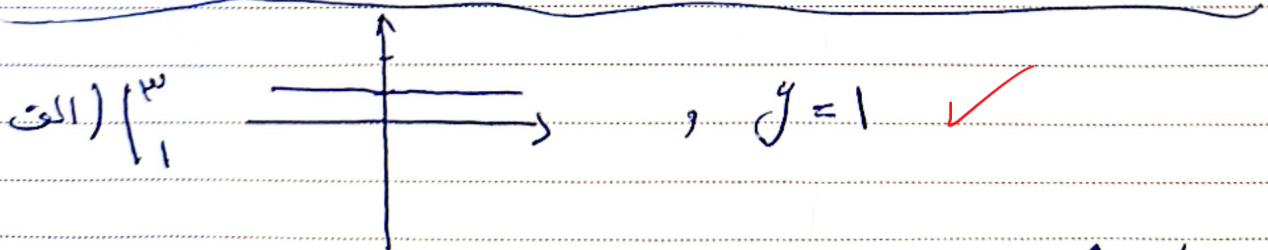
$$|g - 2| = -\sqrt{x - 4}$$

ما قبل بیوس!

$$x = \cos g$$

$$x = 0 \Rightarrow g = \frac{\pi}{2}, \frac{3\pi}{2}$$

90°, 270°



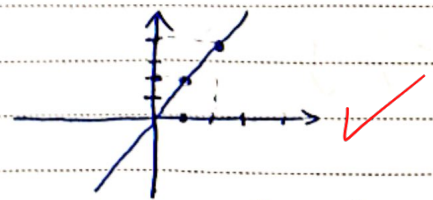
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$$ax + b = y$$

$$ax + b = y$$

$$y = kx + b \Rightarrow b = 0 \Rightarrow y = kx$$



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تاریخ

$$y = x \Rightarrow a=1, b=0 \quad 1+0=1 \quad \checkmark \quad (2) \text{ الف}$$

1125

$$\frac{-a}{1} = 1 \Rightarrow a = -1$$

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$$y=1 \rightarrow 1 = (1)^1 - 1(1) + b \rightarrow b=1$$

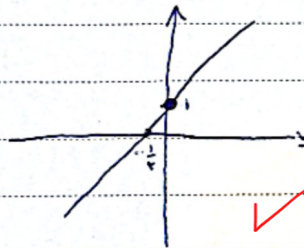
در این فرضیه ضریب x است.

$$-1 + 0 = -1 \Rightarrow a + 1b = -1 + 1(1) = 0$$

$$b=0$$

$$19 - 1b = 19$$

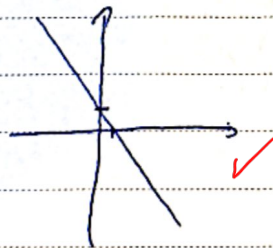
$$3) y = 2x + 1$$



$$10$$

$$10^{-1/2}$$

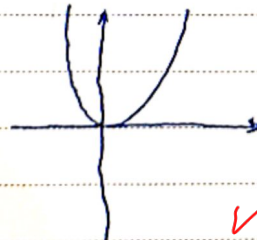
$$4) y = -2x + 1$$



$$10$$

$$10^{-1/2}$$

$$5) y = x^2$$

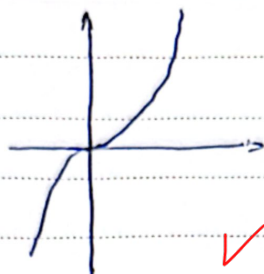


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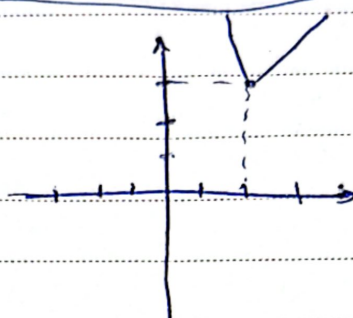
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$$y = x^3$$

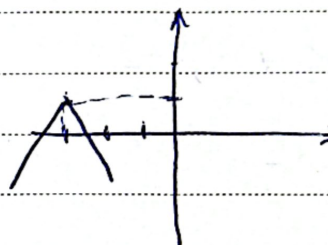


$$الف) y = |x - 2| + 3$$



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$$ب) y = -|x + 3| + 1$$



$$الف) y = \frac{x + 4}{x^2 - 4x}$$

$$x(x - 4)$$

$$x^2 - 4x \neq 0$$

$$x^2 \neq 4x$$

$$x \neq 4, 0$$

$$D_f = \mathbb{R} - \{4, 0\}$$

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مستقيم

$$1) y = \frac{x+5}{x^2-1x+4}$$

$$D = \mathbb{R}$$

$$\Delta = 19 - 1 \times 1 \times 4 = 19 - 4 = 15 > 0 \Rightarrow \text{مستقيم}$$

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

$$\Delta = 1 - 19 = -18 < 0 \Rightarrow \text{مستقيم} \rightarrow D = \mathbb{R}$$

$$3) y = \frac{x+5}{x^2-5x}$$

$$D_f = \mathbb{R} - \{0, 5\}$$

$$x^2(x-5) \Rightarrow x \neq 0, 5$$

$$الف) y = \sqrt{4-x} + \sqrt{x-2}$$

$$4-x \geq 0$$

$$1.65 \text{ (1)}$$

$$4 \geq x$$

$$\Rightarrow 2 \leq x \leq 4$$

$$x-2 \geq 0$$

$$D = [2, 4]$$

$$x \geq 2$$

$$ب) y = \frac{3x+1}{x^2+1}$$

$$x^2+1 \neq 0$$

$$x^2 \neq -1 \Rightarrow \text{مستقيم} \quad D = \mathbb{R}$$

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$$2.) y = \frac{\sqrt{x-2}}{x-2} \quad x-2 \neq 0$$

$$x-2 > 0 \quad \underline{x > 2}$$

$$x \neq 2$$

$$D = \mathbb{R} - \{2\}$$

$$D_y = [2, \infty) - \{2\}$$

$$3.) y = \frac{2x+2}{|x|+2^x} \Rightarrow |x|+2^x \neq 0$$

$\begin{matrix} +0,5 \\ +0,5 \end{matrix}$

~~$\mathbb{R}$~~

$$D = \mathbb{R} - \{0\}$$

-10

$$\cos 120^\circ = -\frac{1}{2} \times -1 = \frac{1}{2}$$

$$\frac{\pi}{3} \text{ ر } = 120^\circ \text{ (المت)}$$

$$10^\circ, 150^\circ \Rightarrow \left[\frac{\pi}{6}, \frac{5\pi}{6} \right]$$



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$$\frac{\sqrt{3}}{2} = \sin \left[\frac{\pi}{6}, \frac{5\pi}{6} \right] \Rightarrow \left[\frac{\pi}{6}, \frac{5\pi}{6} \right]$$

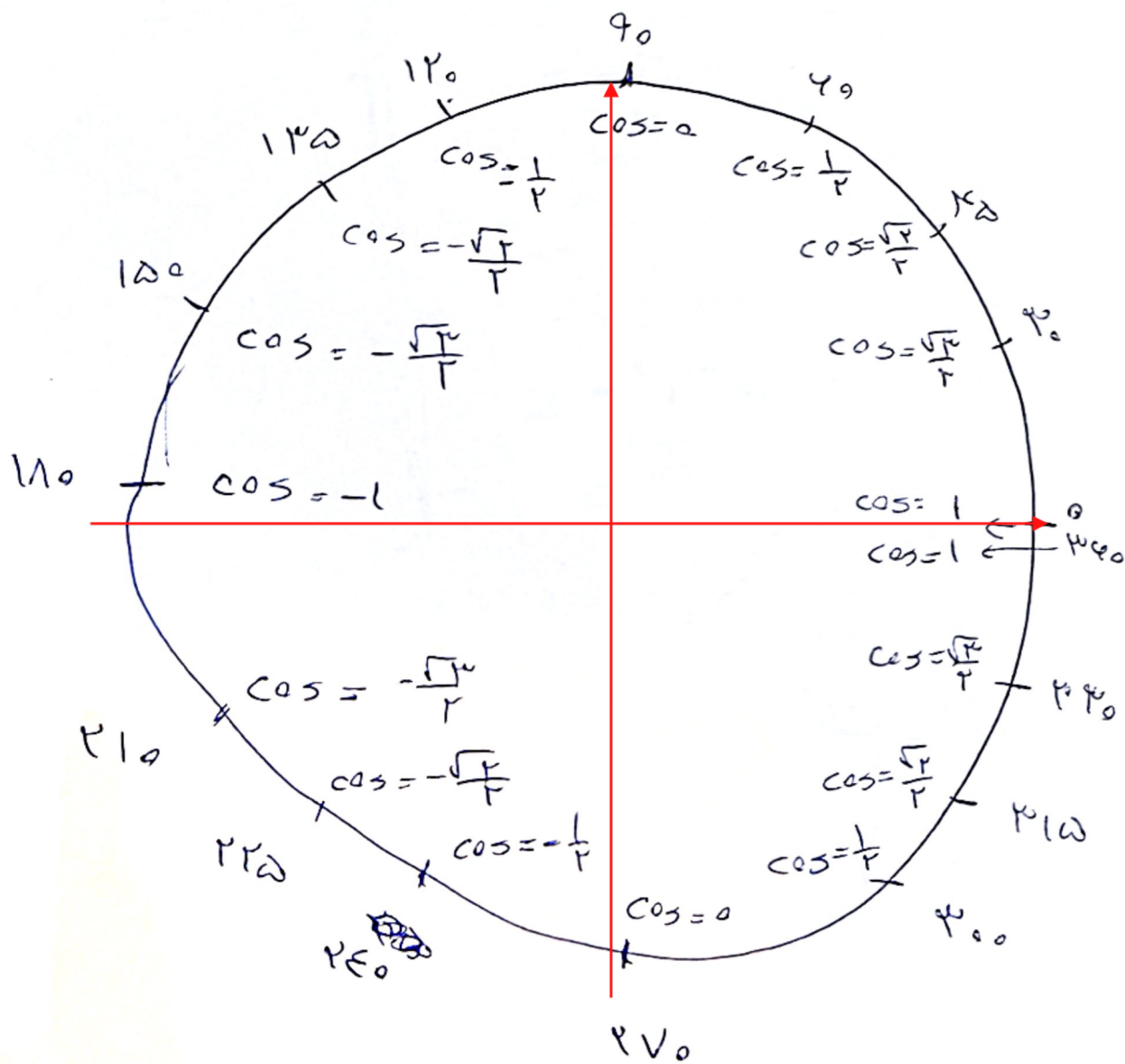
$\begin{matrix} \pi/6 & 5\pi/6 \end{matrix}$



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شیء معنی

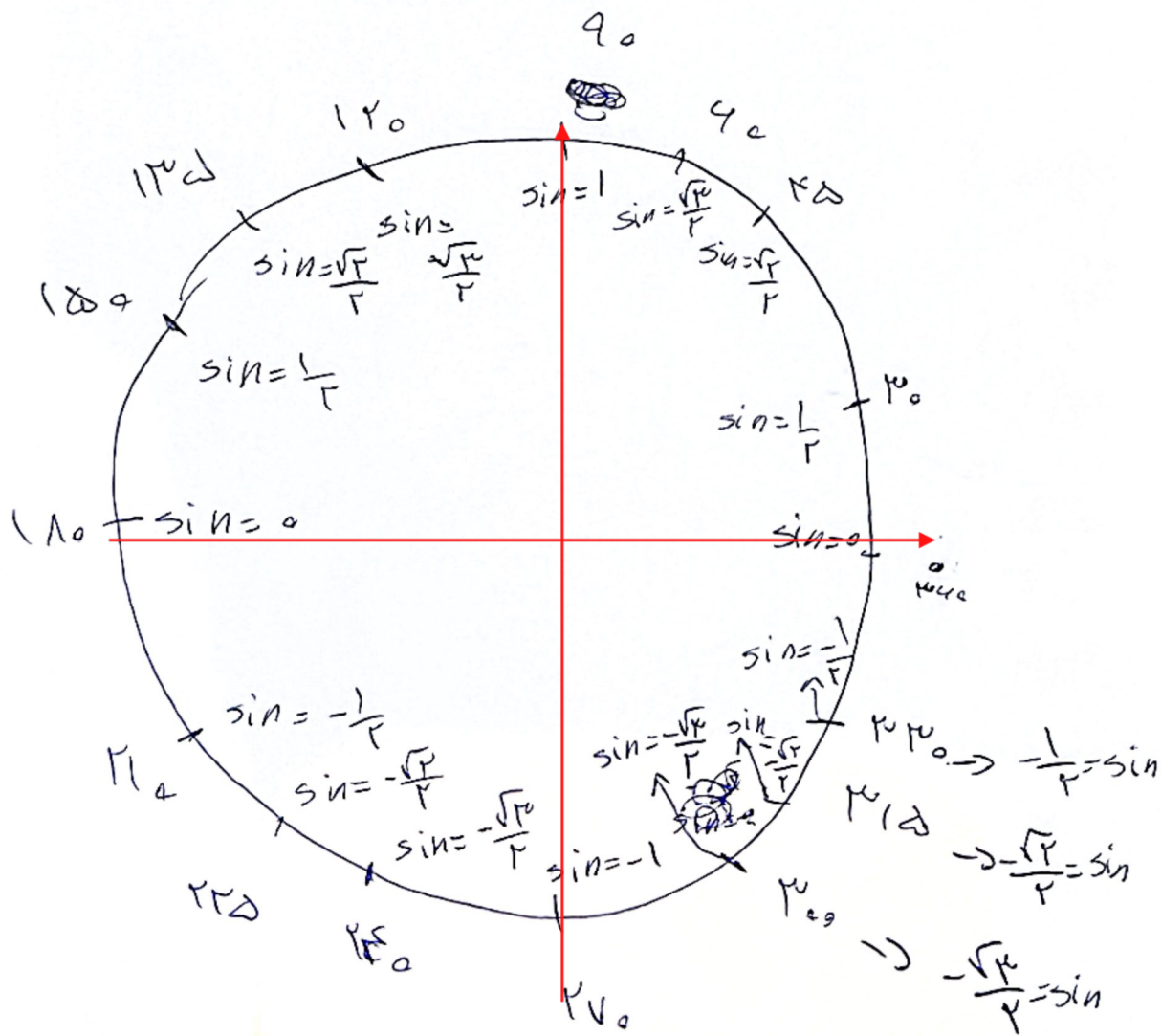
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سین

4

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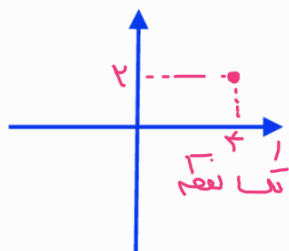


$$y^3 - x = 2x^2 \quad (\text{الف})$$

$$\rightarrow \begin{cases} y_1^3 = 2x_1^2 + x_1 \\ y_2^3 = 2x_2^2 + x_2 \end{cases} \xrightarrow{x_1 = x_2} y_1^3 = y_2^3 \Rightarrow y_1 = y_2 \quad \underline{\text{تابع است!}}$$

$$ج) \underbrace{\sqrt{x-4}}_0 + \underbrace{|y-2|}_0 = 0$$

$x=4 \qquad y=2$



تابع است!

همه دو عدد ناشی برابر صفر بوده :