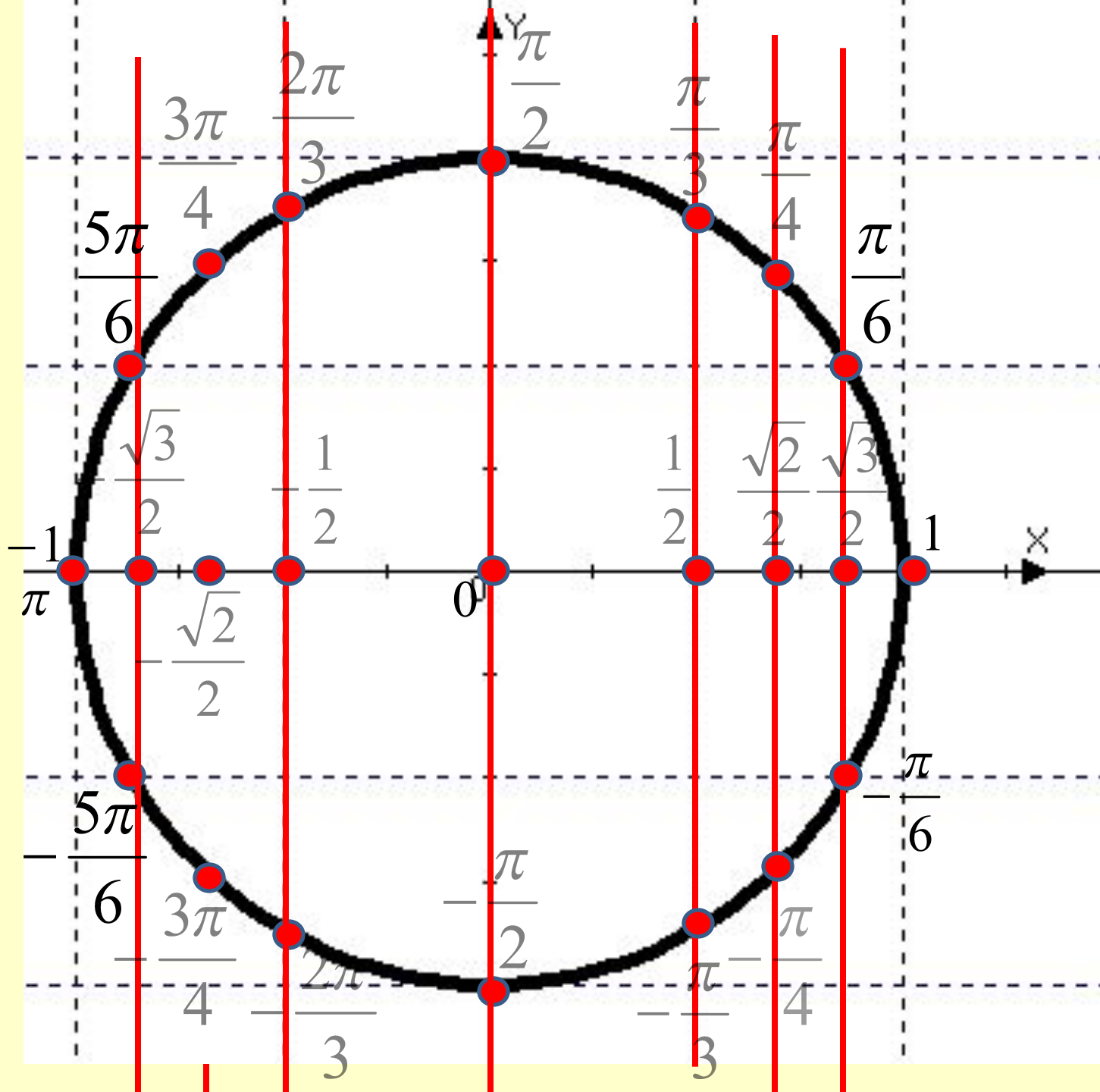
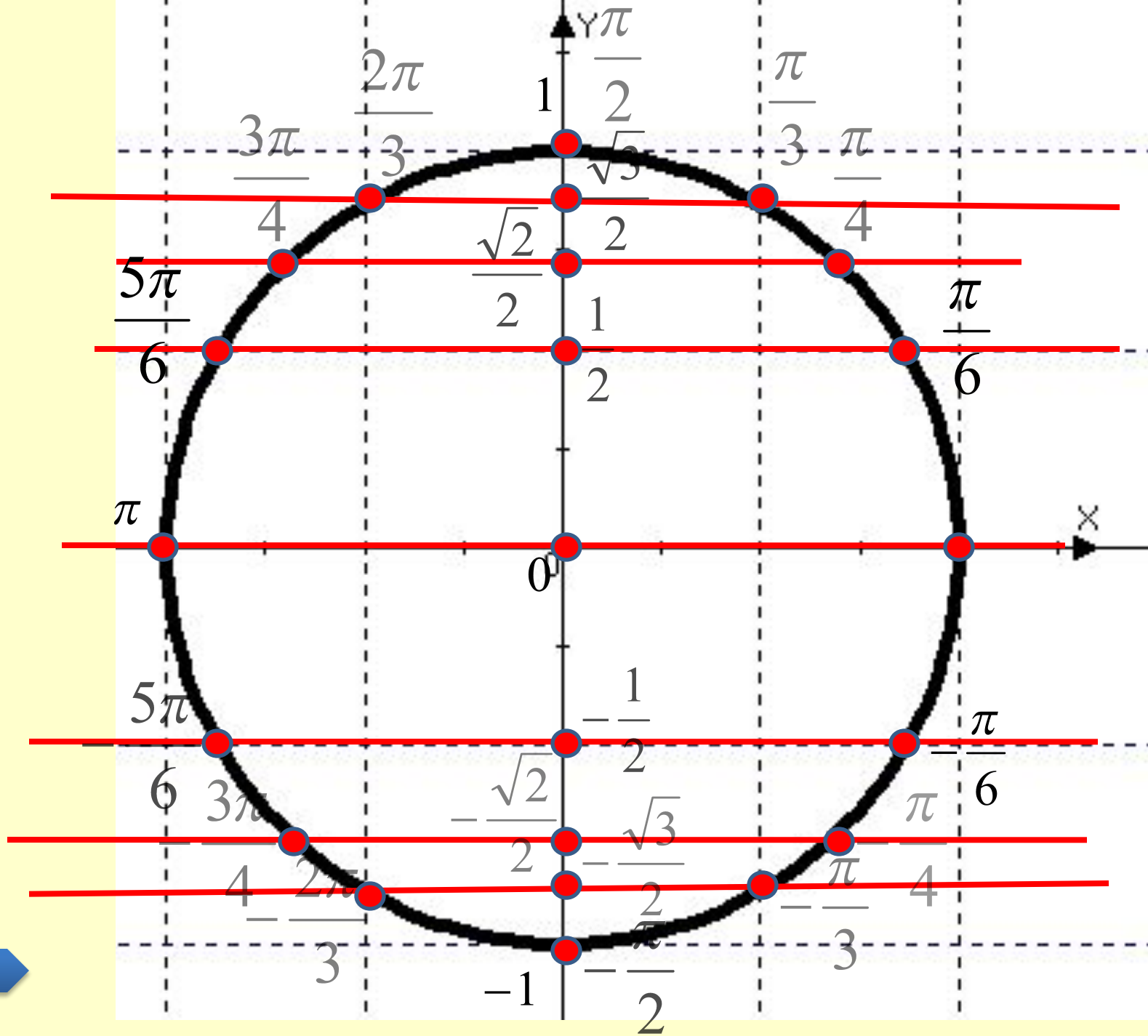


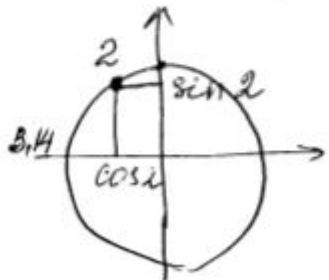
***16.11. Синус, косинус,  
тангенс.***





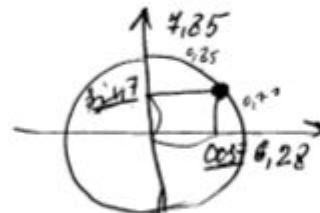
Сравнение

$$a = \sin 2 \text{ и } b = \cos 2$$



$$\begin{aligned} \sin 2 &> 0 \\ \cos 2 &< 0 \\ \sin 2 &> \cos 2 \\ a &> b. \end{aligned}$$

$$a = \sin 7; \quad b = \cos 7$$

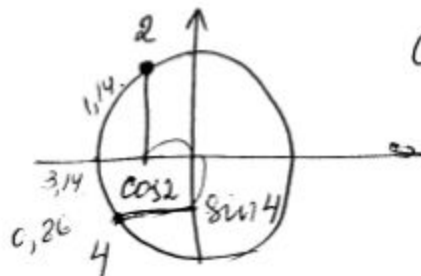


$$\begin{aligned} \cos 7 &> \sin 7 \\ b &> a \end{aligned}$$

$$\begin{aligned} \text{от } 7 \text{ до } 7,85 & \quad 0,85 \\ \text{от } 6,28 \text{ до } 7 & \quad 0,72 \end{aligned}$$

$$a = \sin 4$$

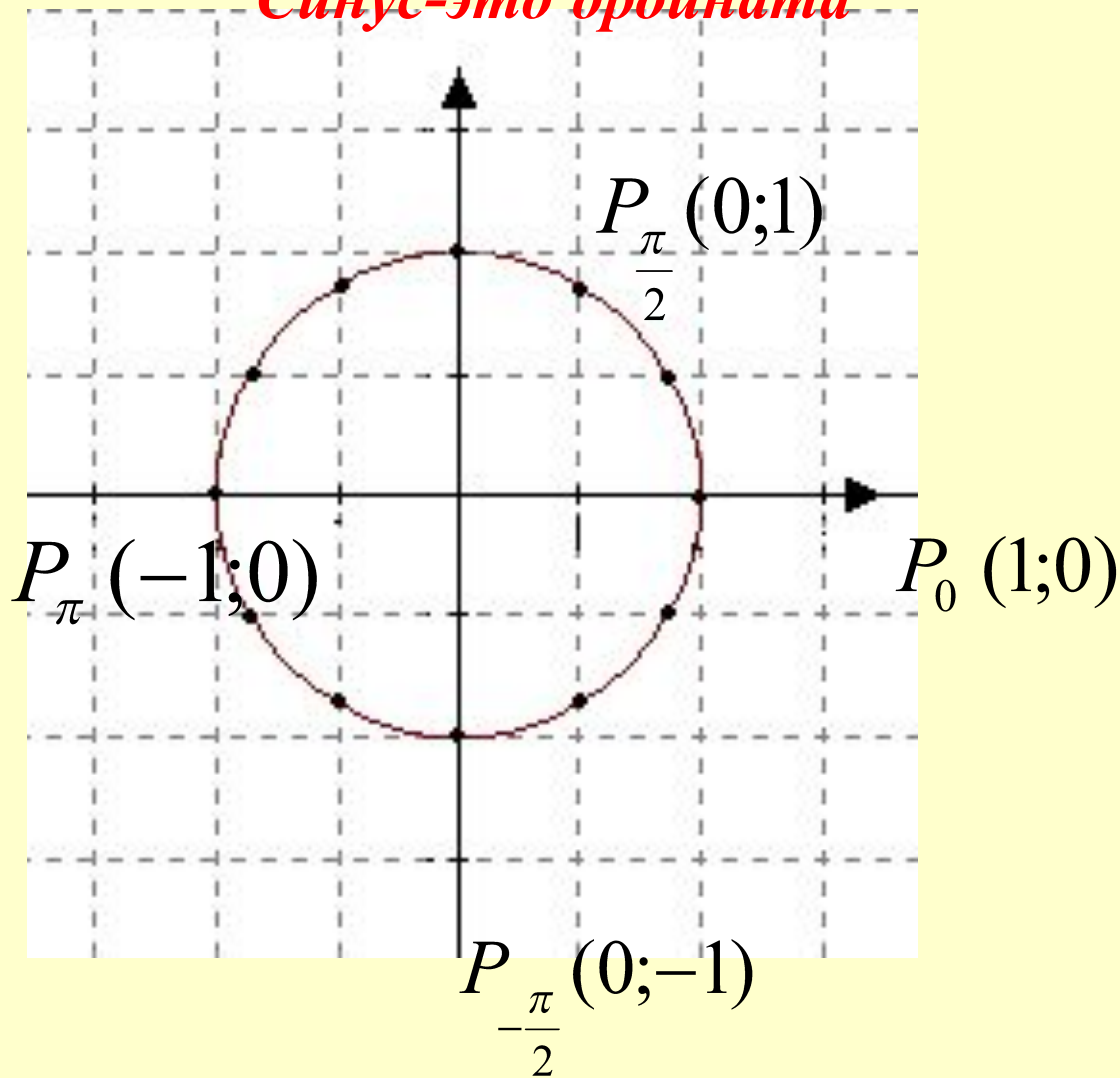
$$b = \cos 2$$



$$\cos 2 > \sin 4$$

$$\Rightarrow b > a$$

*Синус-это ордината*



$$\sin x = 1$$

$$x = \frac{\pi}{2} + 2\pi n$$

*где n-целое*

$$\sin x = -1$$

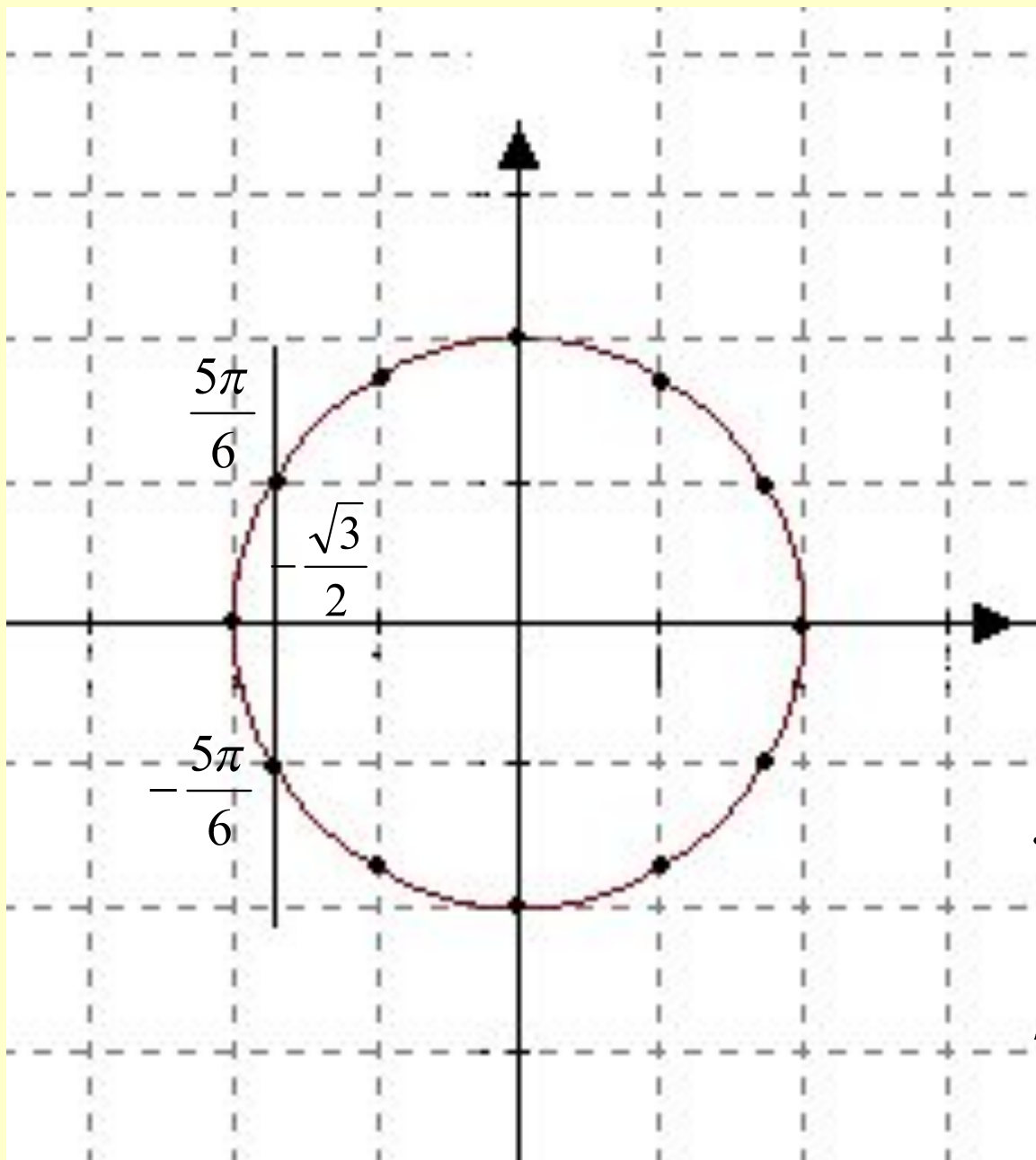
$$x = -\frac{\pi}{2} + 2\pi n$$

*где n-целое*

$$\sin x = 0$$

$$x = \pi n$$

*где n-целое*

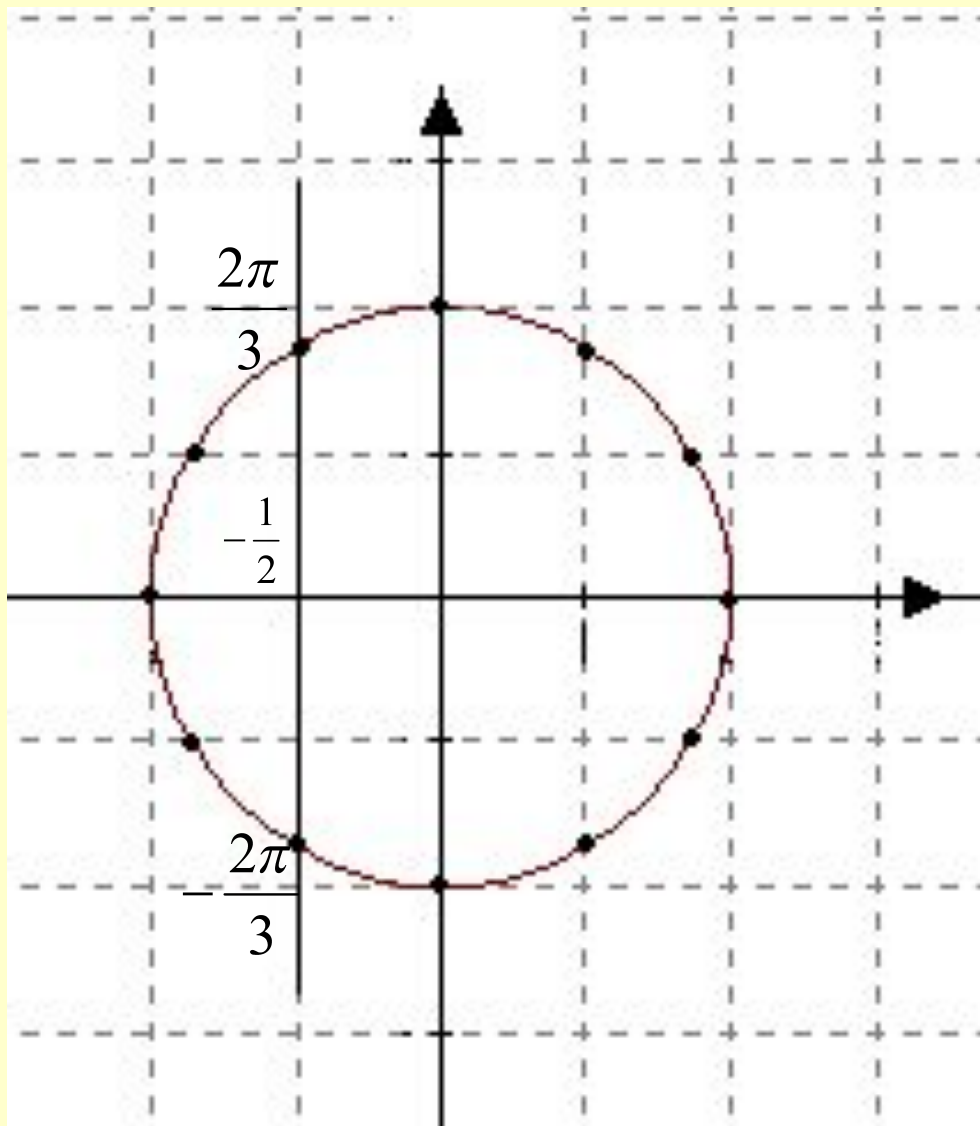


$$\cos x = -\frac{\sqrt{3}}{2}$$

$$x = \pm \frac{5\pi}{6} + 2\pi n,$$

$$n \in \mathbb{Z}.$$

## Косинус-это абсцисса

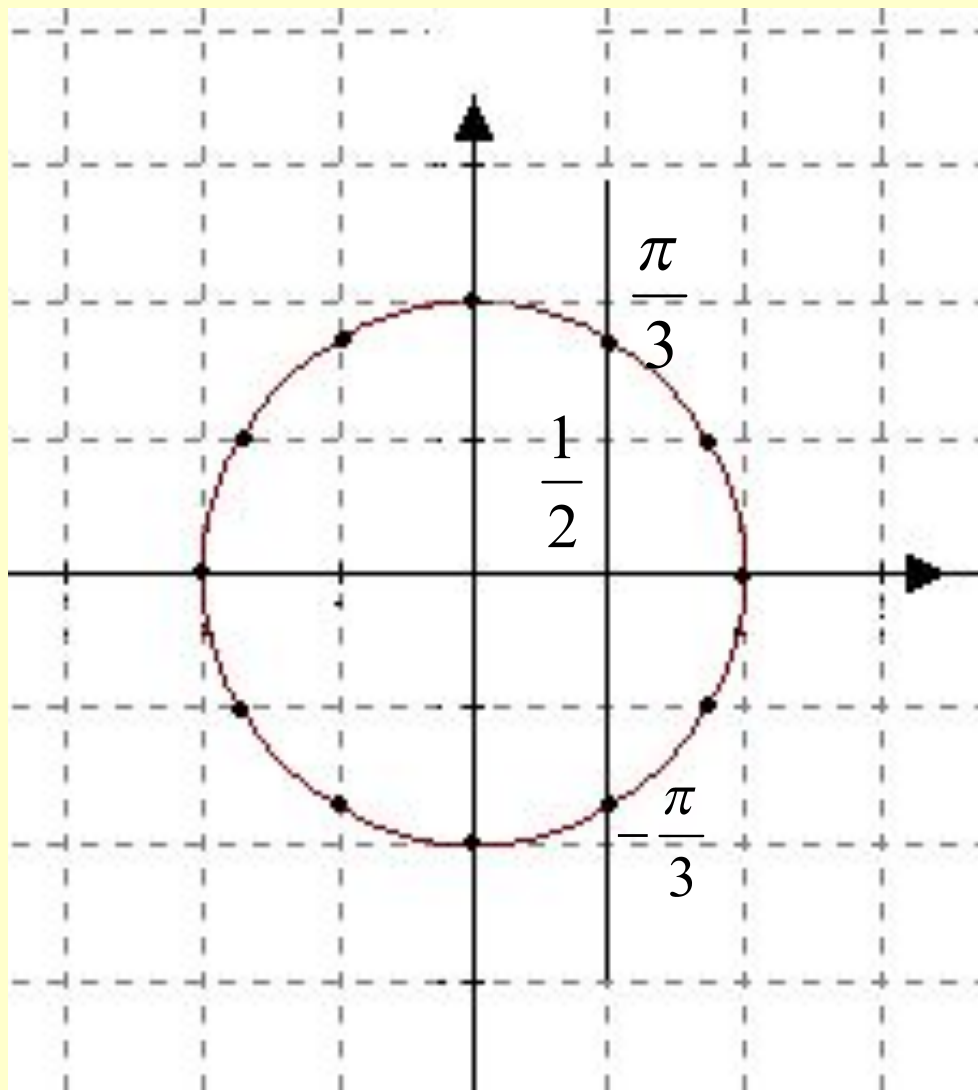


$$\cos x = -\frac{1}{2}$$

$$x = \pm \frac{2\pi}{3} + 2\pi n,$$

$$n \in \mathbb{Z}.$$

## *Косинус-это абсцисса*



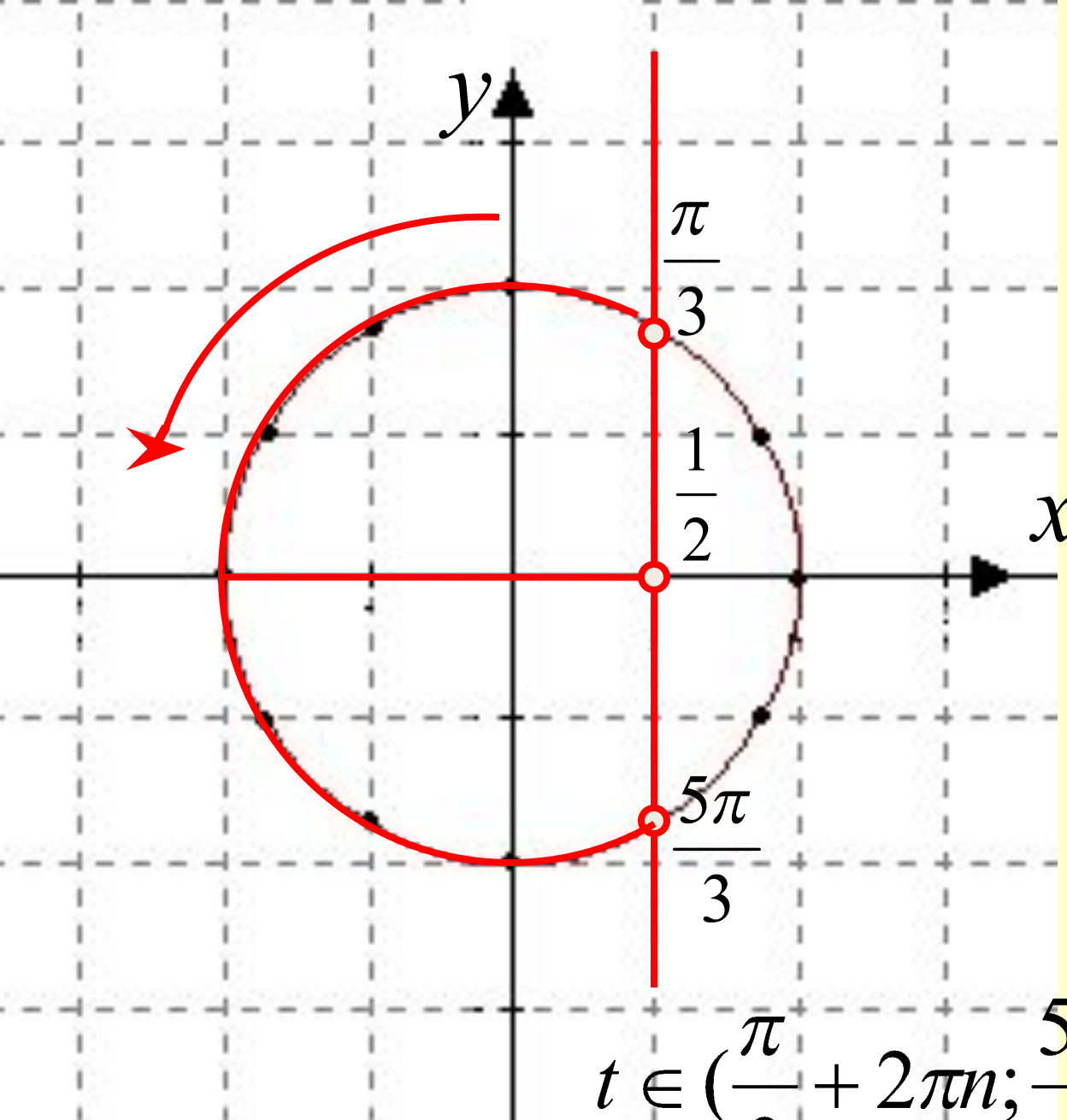
$$\cos x = \frac{1}{2}$$

$$x = \pm \frac{\pi}{3} + 2\pi n,$$

$$n \in \mathbb{Z}.$$

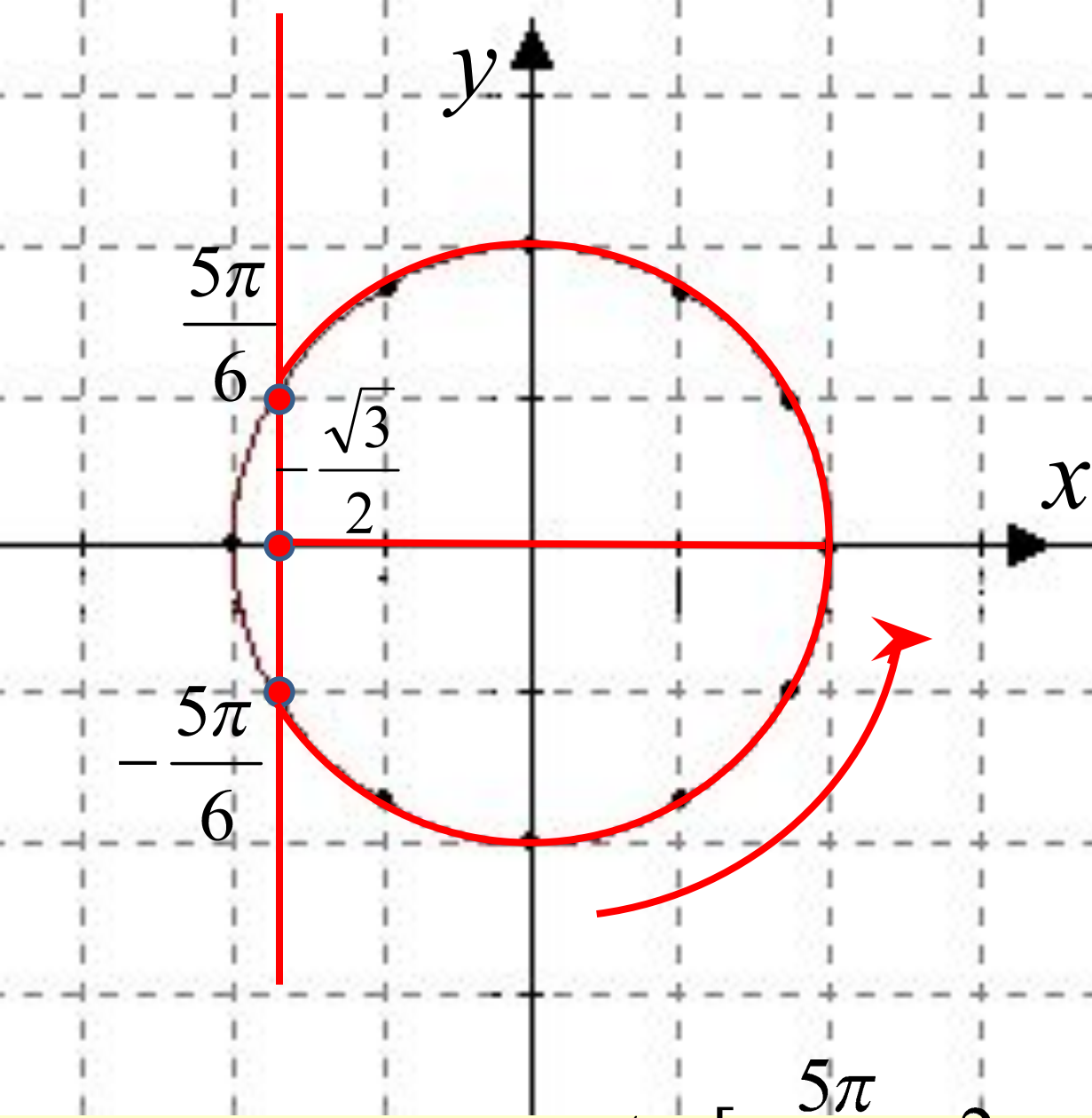


***Решение  
тригонометрических  
неравенств***



$$\cos t < \frac{1}{2}$$

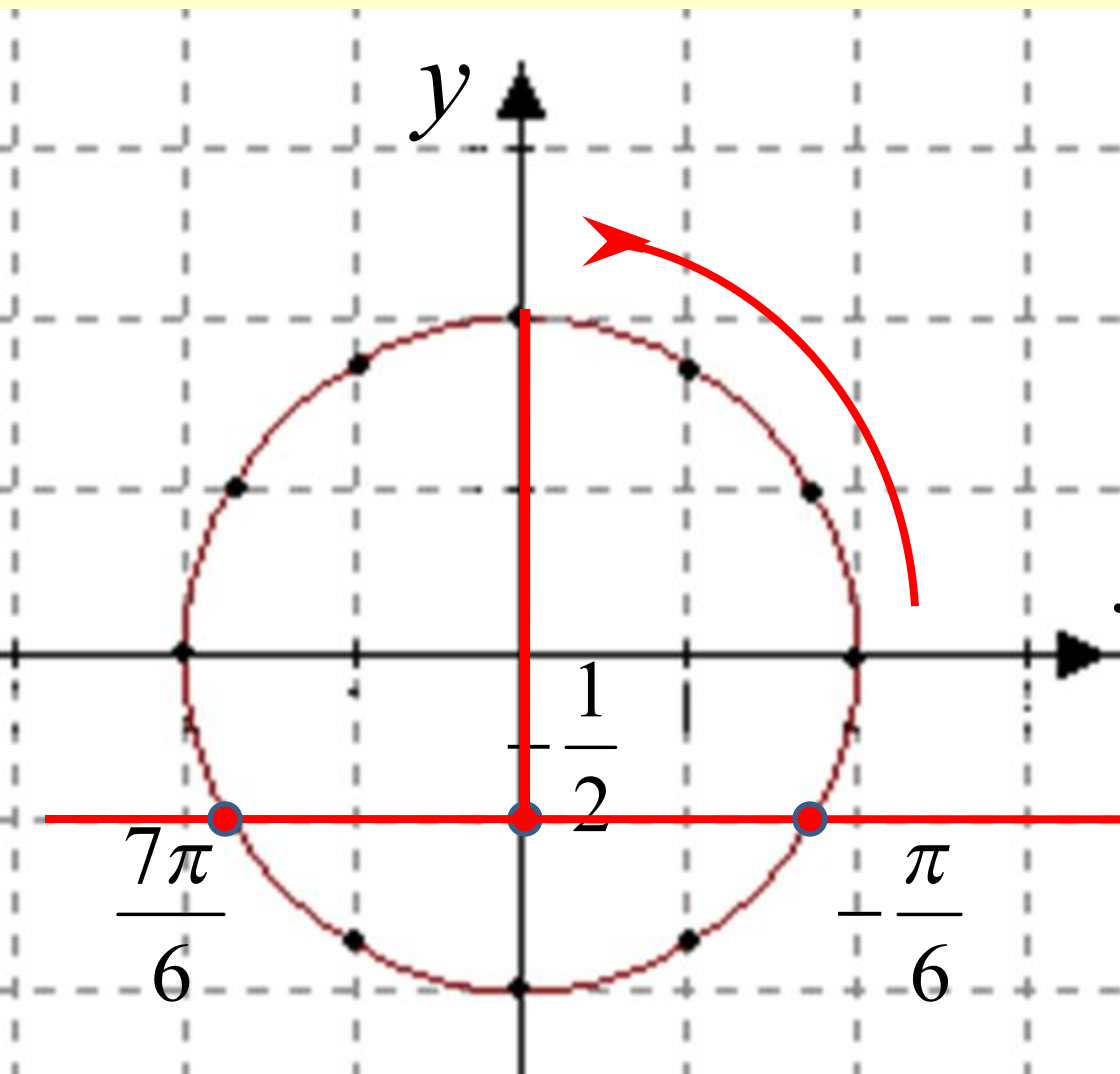
$$t \in \left( \frac{\pi}{3} + 2\pi n; \frac{5\pi}{3} + 2\pi n \right), n \in \mathbb{Z}.$$



$1 \quad 2$

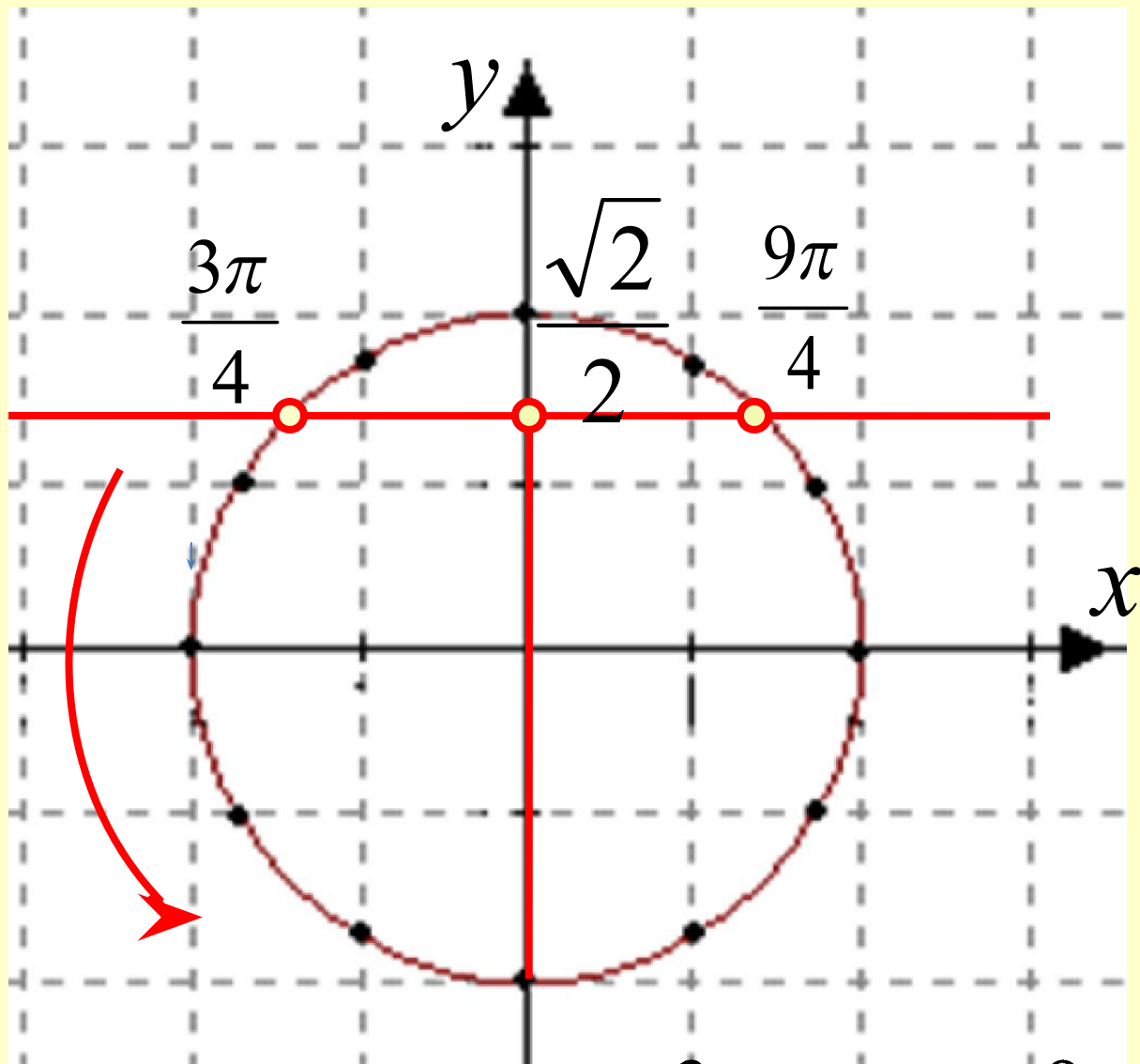
$$\cos t \geq -\frac{\sqrt{3}}{2}$$

$$t \in \left[-\frac{5\pi}{6} + 2\pi n; \frac{5\pi}{6} + 2\pi n\right], n \in \mathbb{Z}.$$



$$\sin t \geq -\frac{1}{2}$$

$$t \in \left[-\frac{\pi}{6} + 2\pi n; \frac{7\pi}{6} + 2\pi n\right], n \in \mathbb{Z}.$$



$t \in (2, 4)$

$$\sin t < \frac{\sqrt{2}}{2}$$

$$t \in \left( \frac{3\pi}{4} + 2\pi n, \frac{9\pi}{4} + 2\pi n \right), n \in \mathbb{Z}.$$

Домашнее задание:

6.16-6.17

6.43-6.45. к среде ,

выслать учителю

самостоятельную

работу из тэш, сегодня.