

Решение тригонометрических неравенств



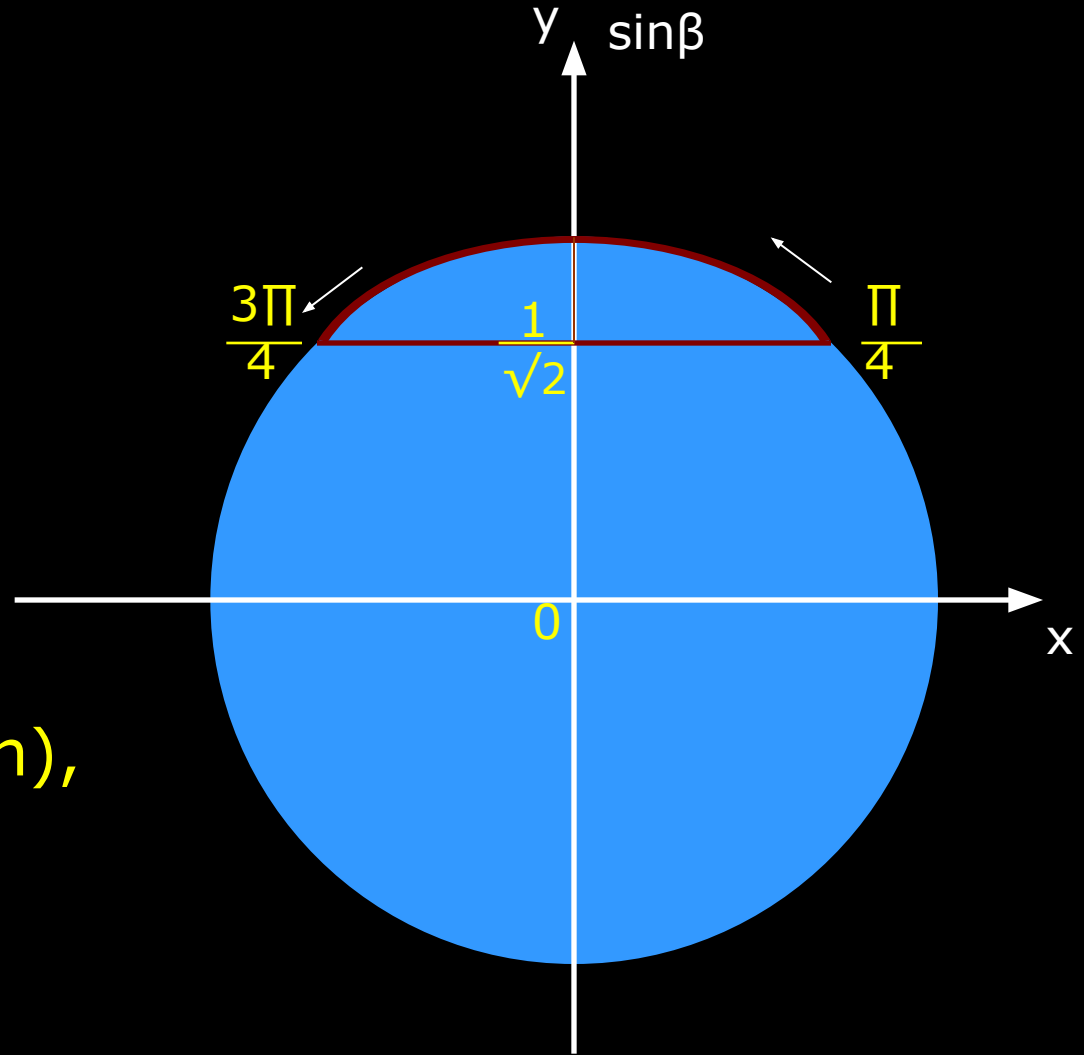
$$\sin X > 1/\sqrt{2}$$

$$\pi/4 < x < 3\pi/4$$

$$\pi/4 + 2\pi n < X < 3\pi/4 + 2\pi n$$

$$(\pi/4 + 2\pi n; 3\pi/4 + 2\pi n),$$

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

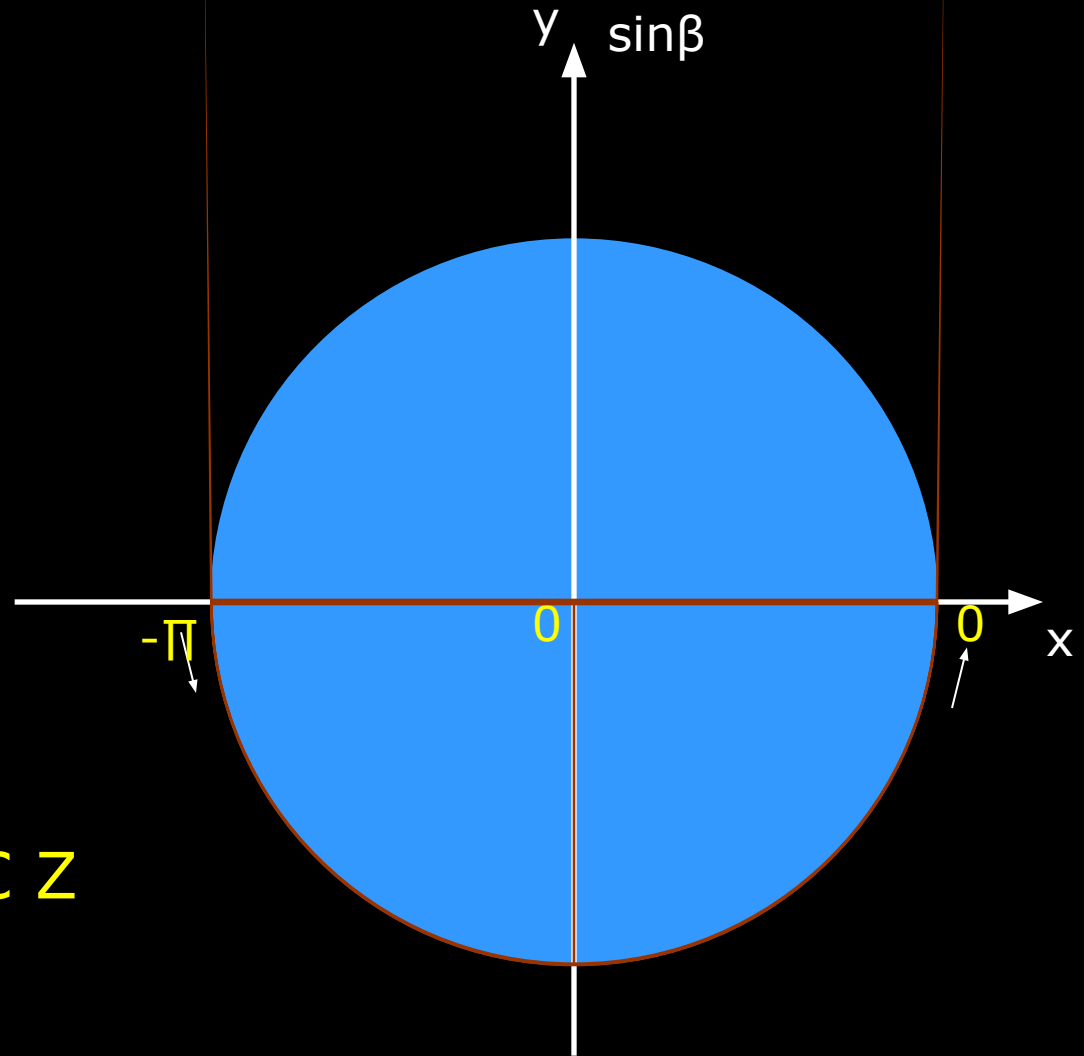


$$\sin X < 0$$

$$-\pi < X < 0$$

$$-\pi + 2\pi n < X < 2\pi n$$

$$(-\pi + 2\pi n; 2\pi n), n \in \mathbb{Z}$$



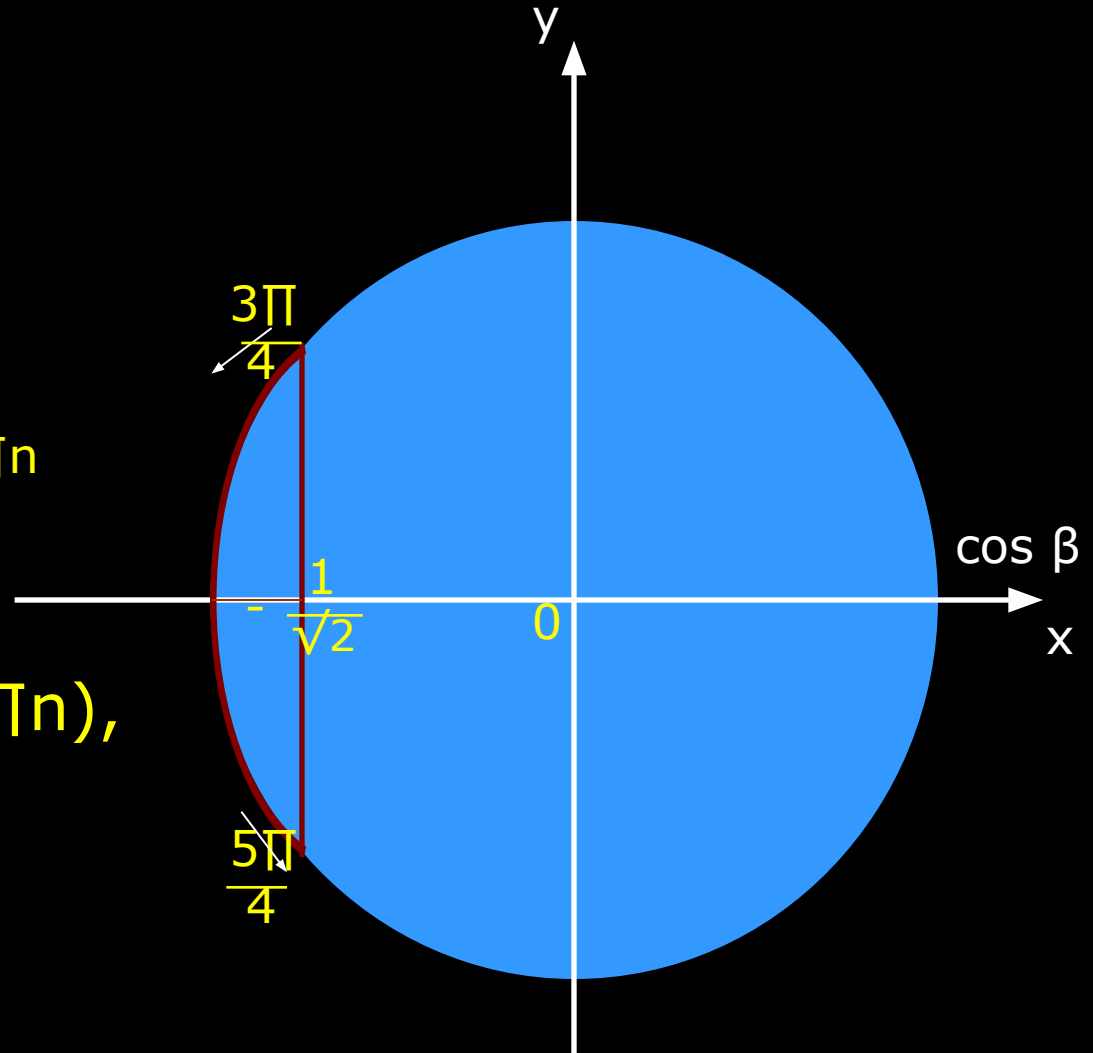
$$\cos X < -1/\sqrt{2}$$

$$3\pi/4 < x < 5\pi/4$$

$$3\pi/4 + 2\pi n < X < 5\pi/4 + 2\pi n$$

$$(3\pi/4 + 2\pi n; 5\pi/4 + 2\pi n),$$

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

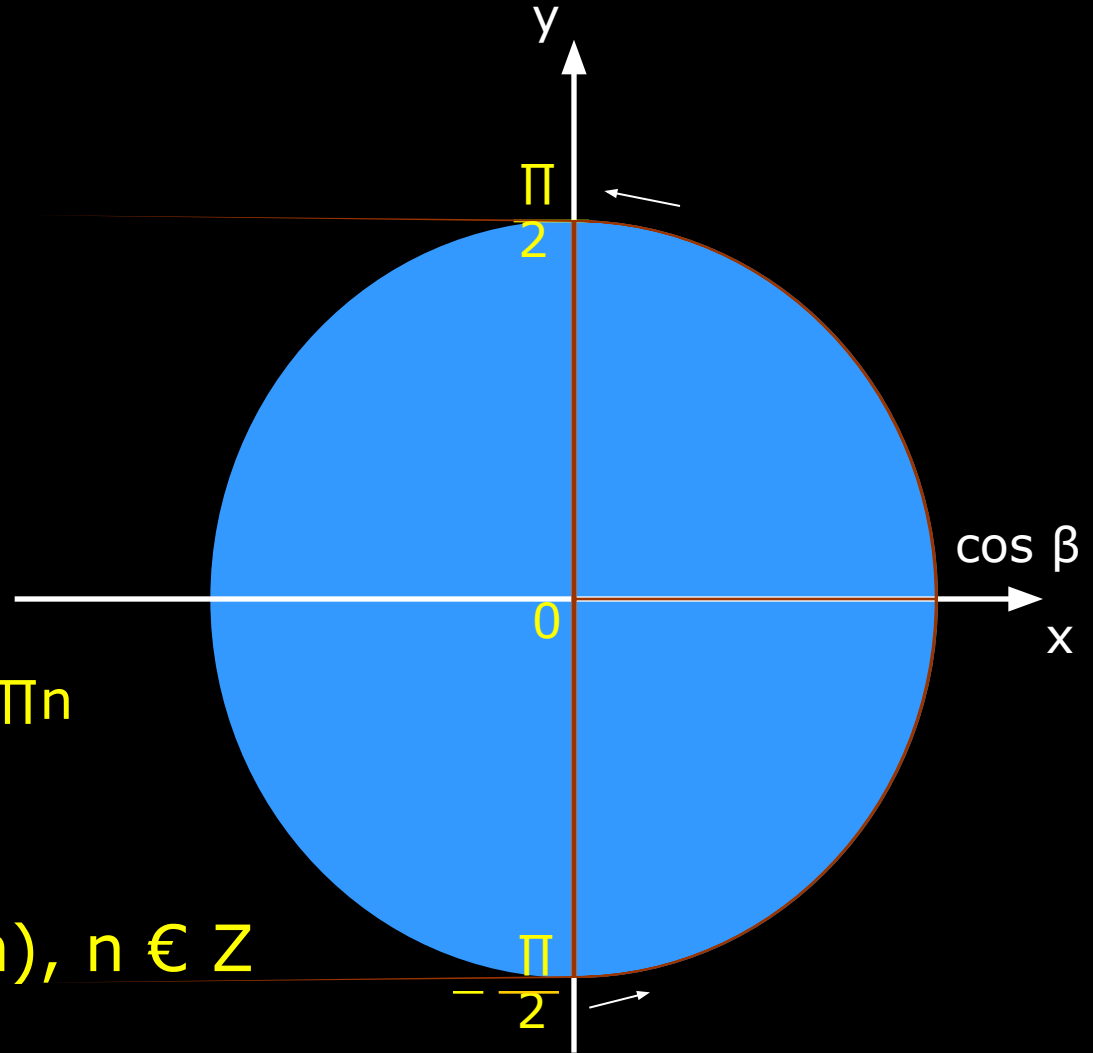


$$\cos X \geq 0$$

$$-\pi/2 < X < \pi/2$$

$$-\pi/2 + 2\pi n < X < \pi/2 + 2\pi n$$

$$(-\pi/2 + 2\pi n; \pi/2 + 2\pi n), n \in \mathbb{Z}$$

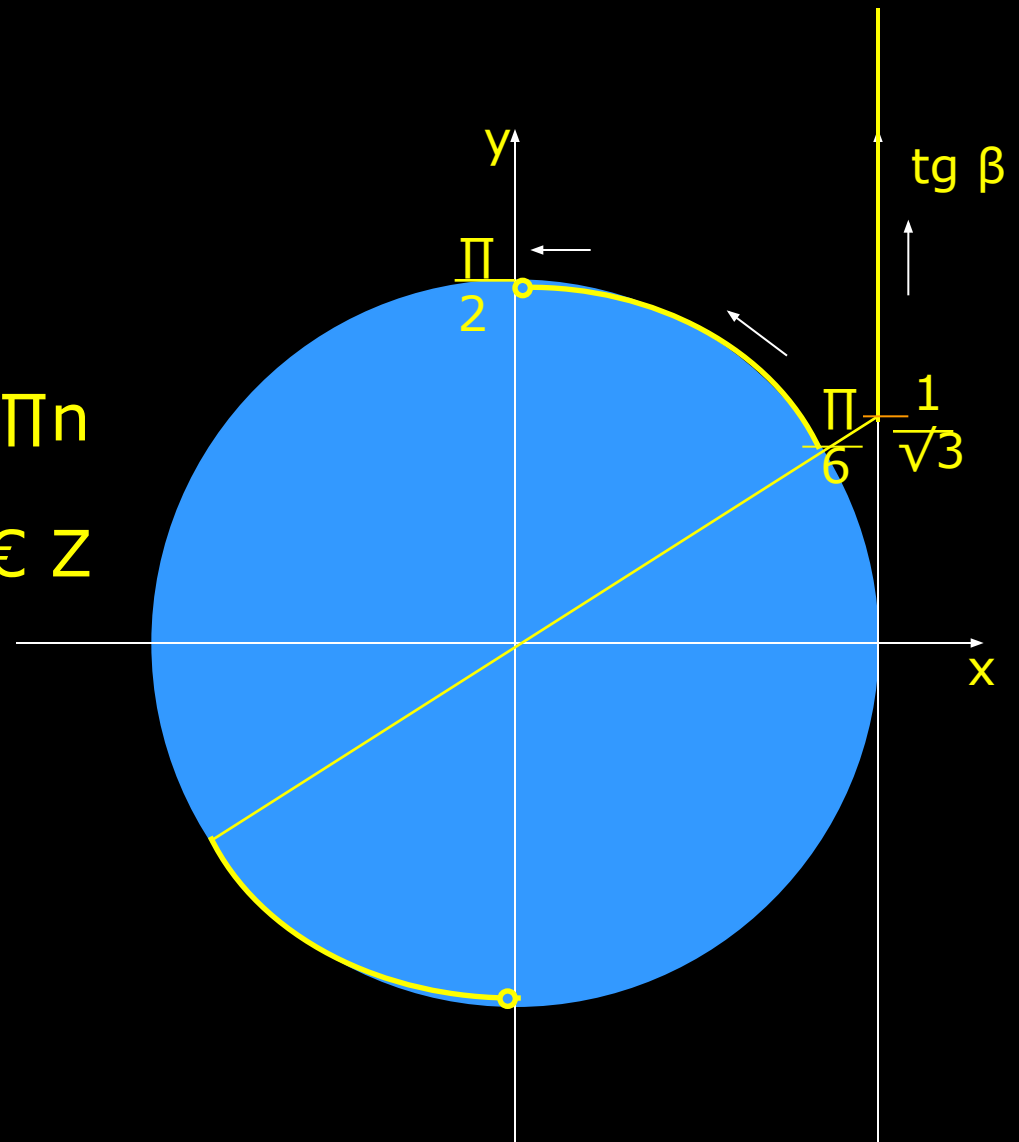


$$\operatorname{tg} X \geq 1/\sqrt{3}$$

$$\pi/6 \leq x < \pi/2$$

$$\pi/6 + \pi n \leq x < \pi/2 + \pi n$$

$$[\pi/6 + \pi n; \pi/2 + \pi n), n \in \mathbb{Z}$$

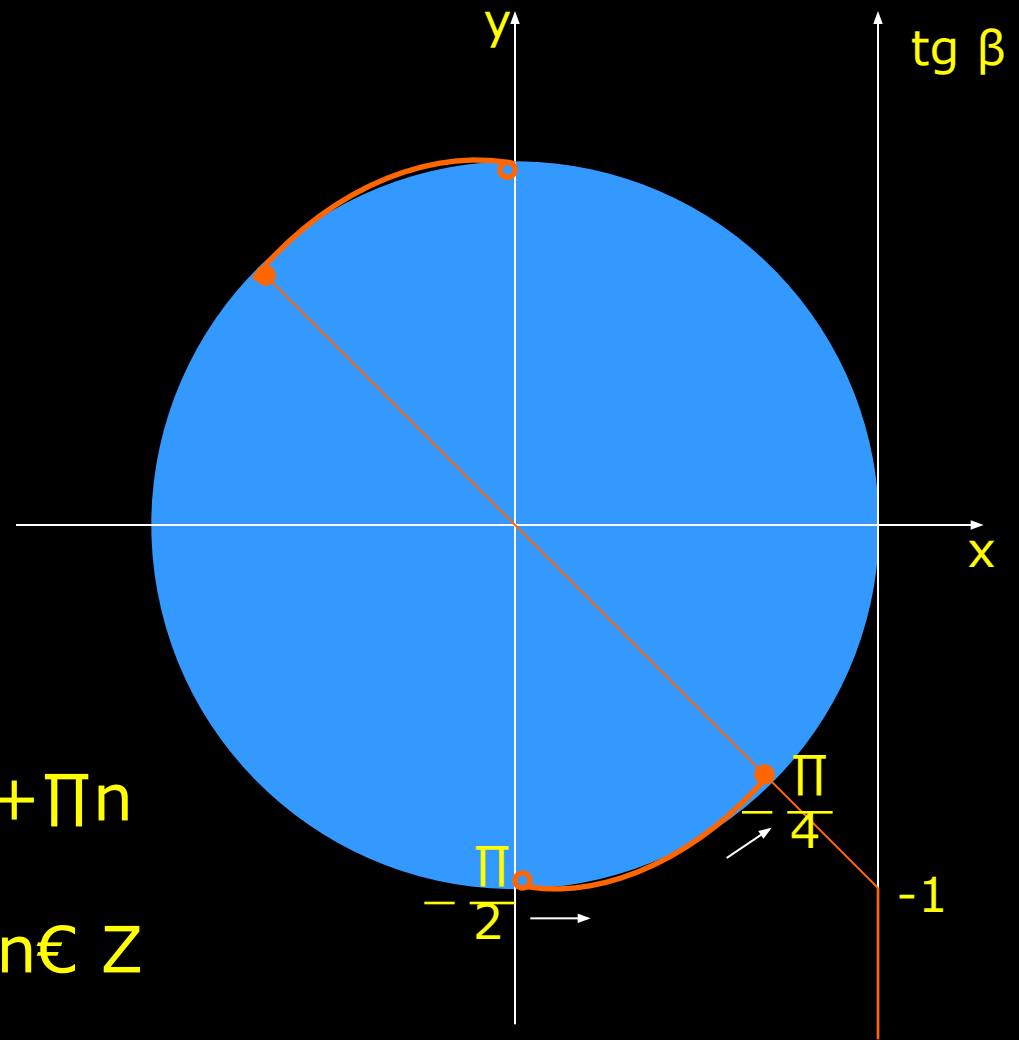


$$\operatorname{tg} X \leq -1$$

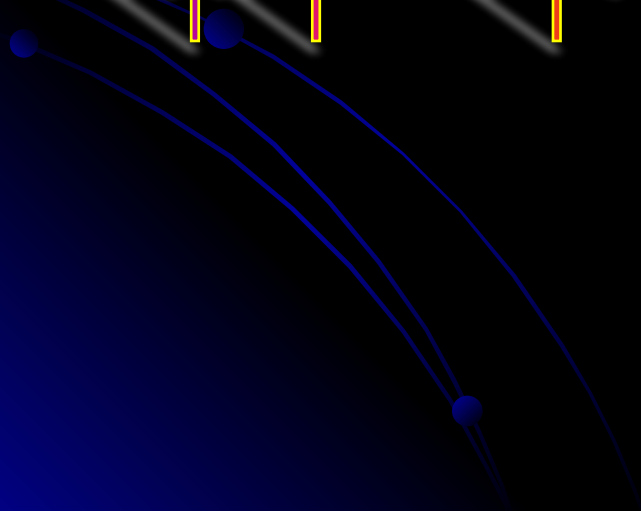
$$-\pi/2 < x \leq -\pi/4$$

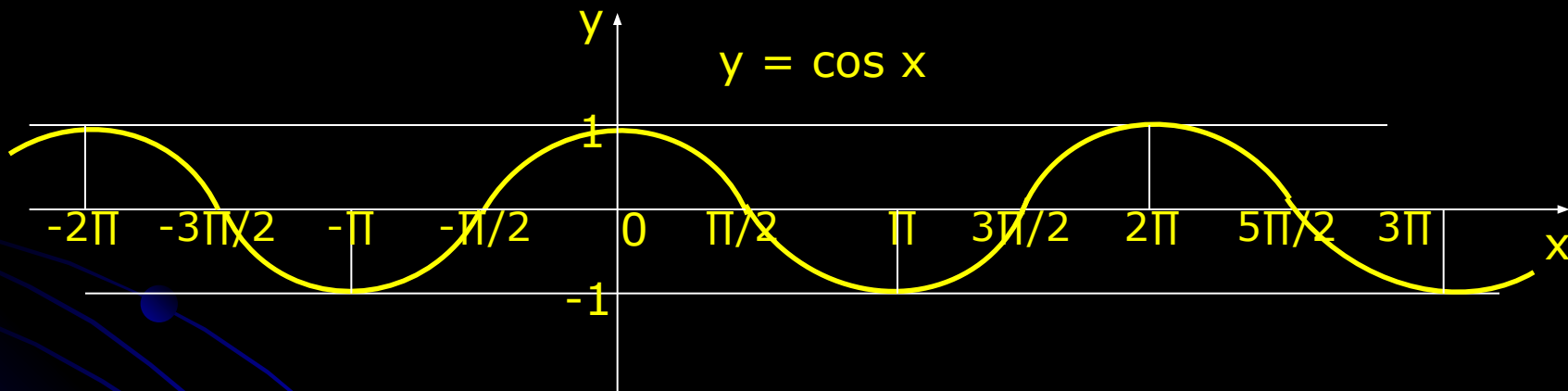
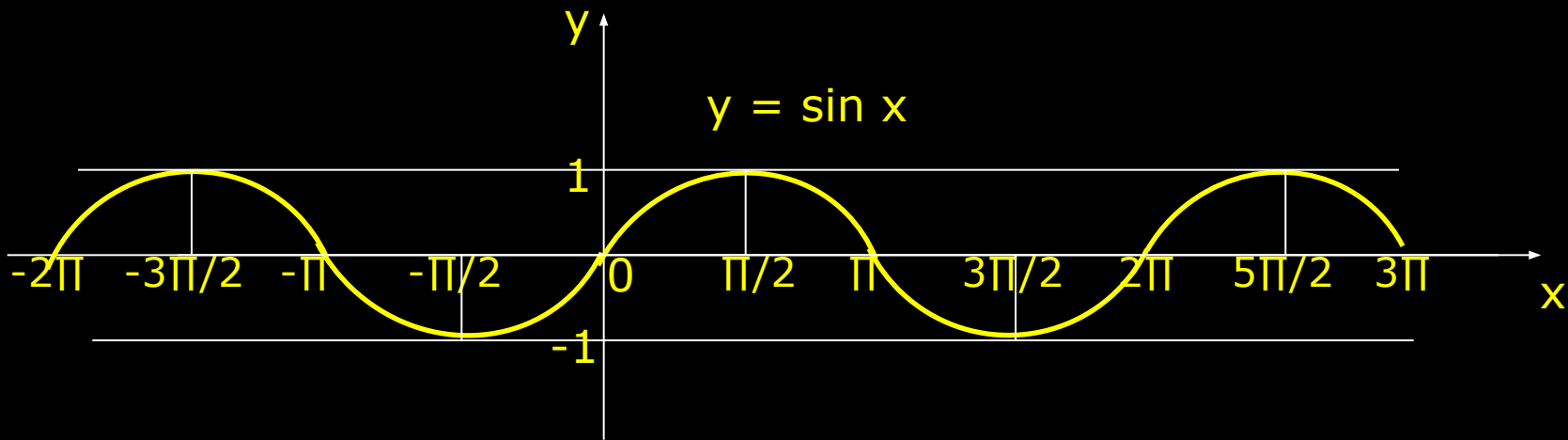
$$-\pi/2 + \pi n < x \leq -\pi/4 + \pi n$$

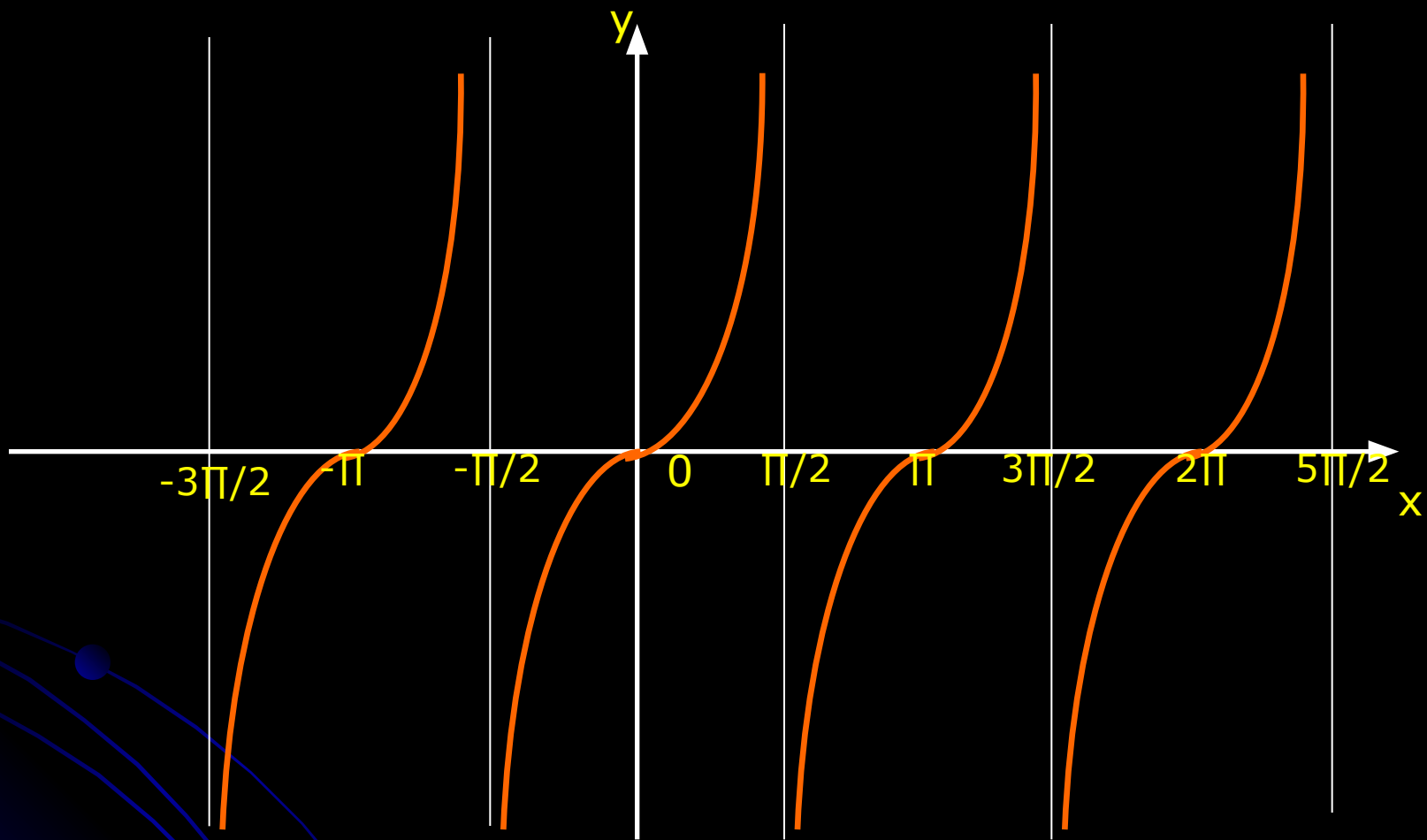
$$(-\pi/2 + \pi n; -\pi/4 + \pi n], n \in \mathbb{Z}$$



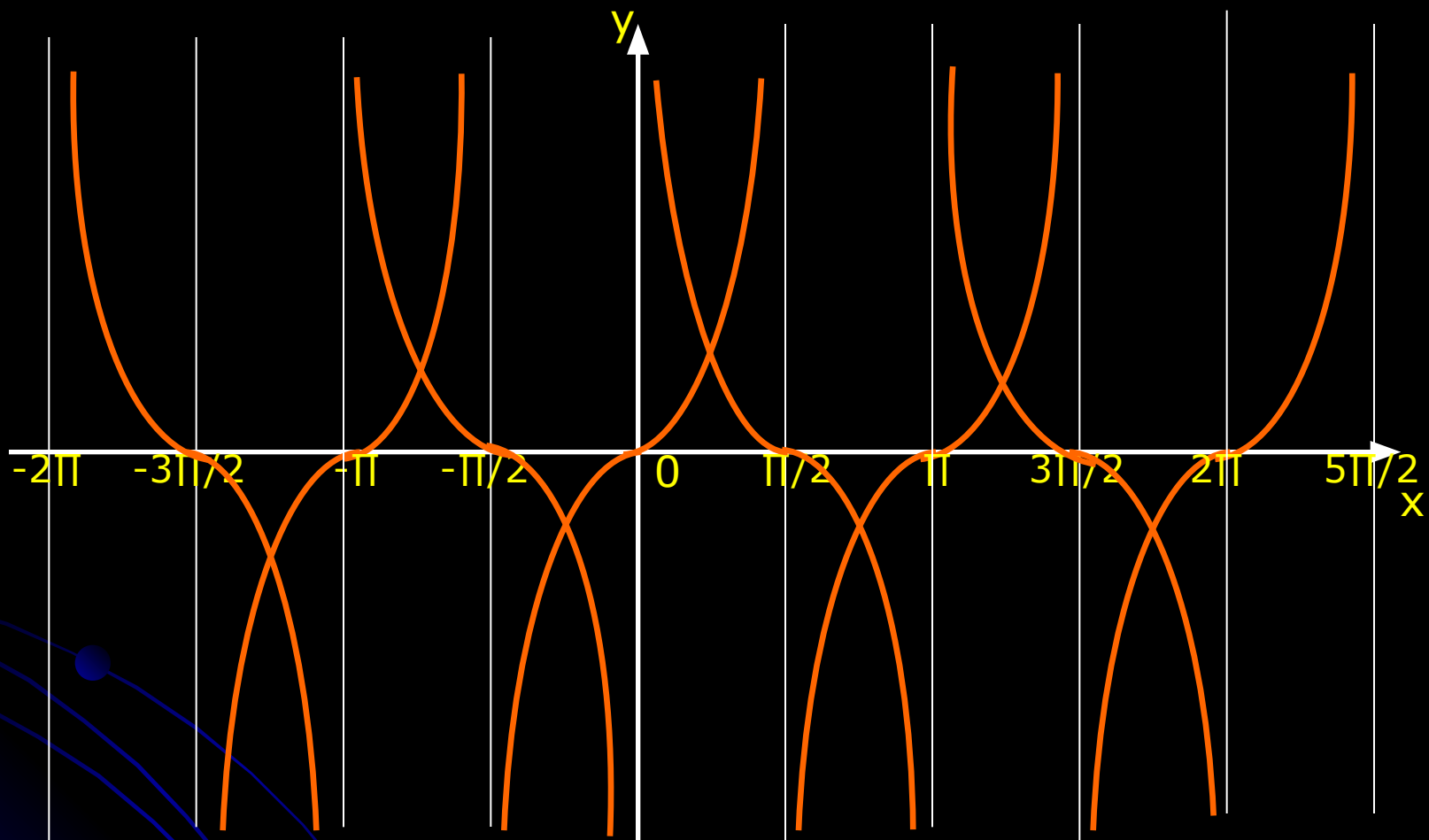
Графики тригонометрических функций







$$y = \operatorname{tg} x$$



$$y = \text{ctg } x$$

Преобразования графиков



