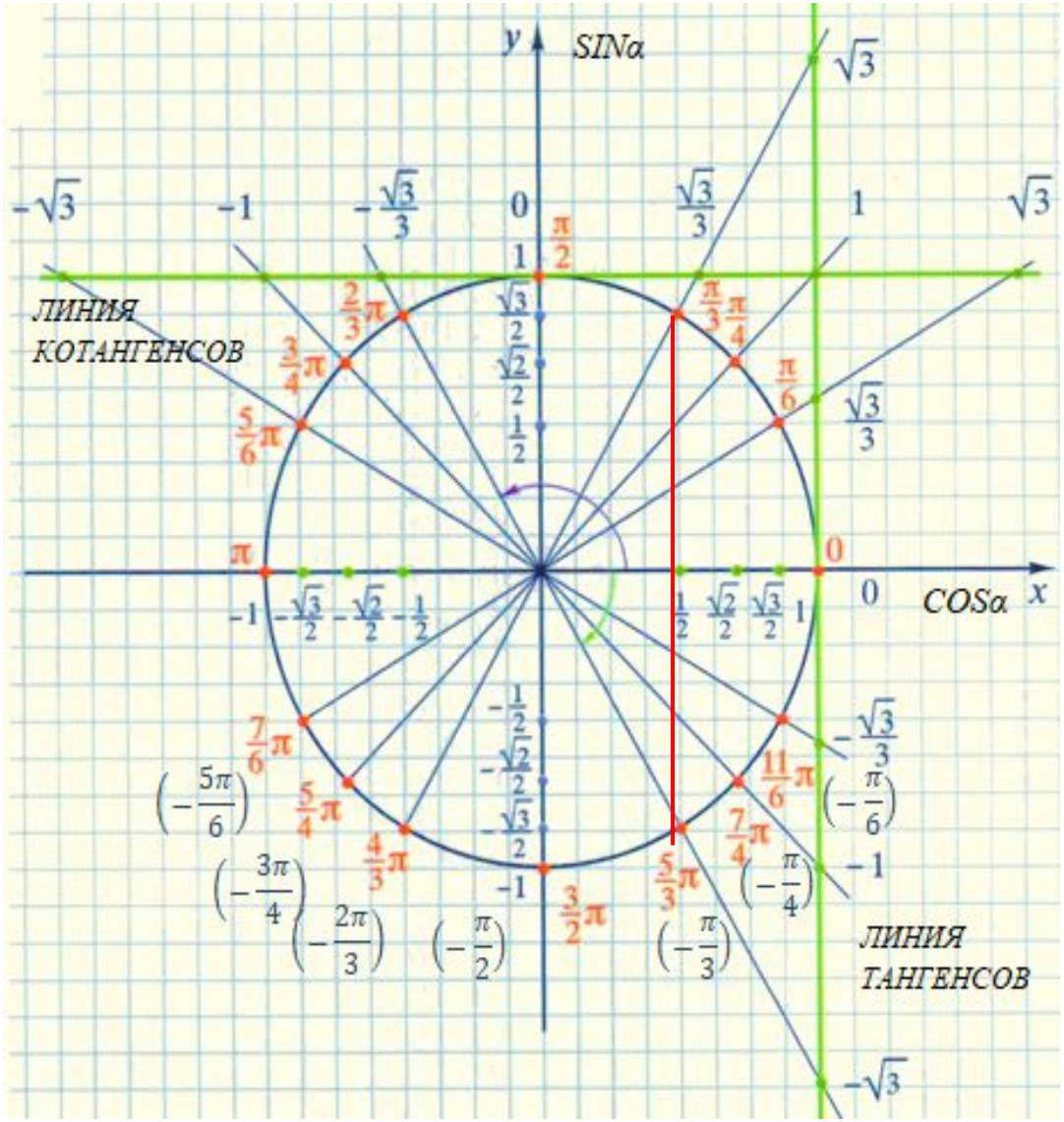
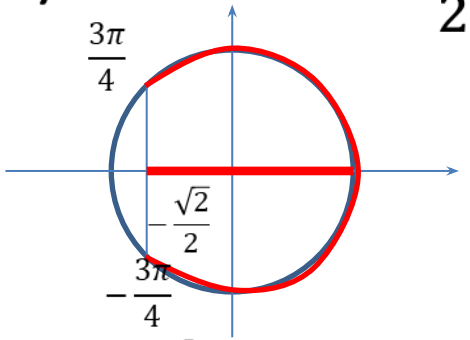
Тригонометрические неравенства

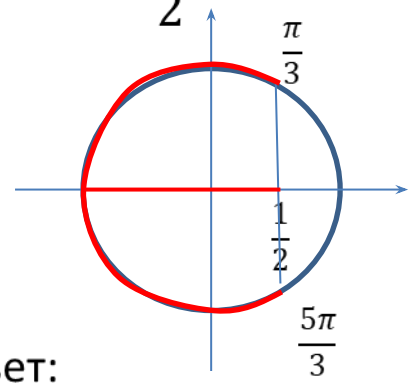


1) $cosx \geq -\frac{\sqrt{2}}{2}$



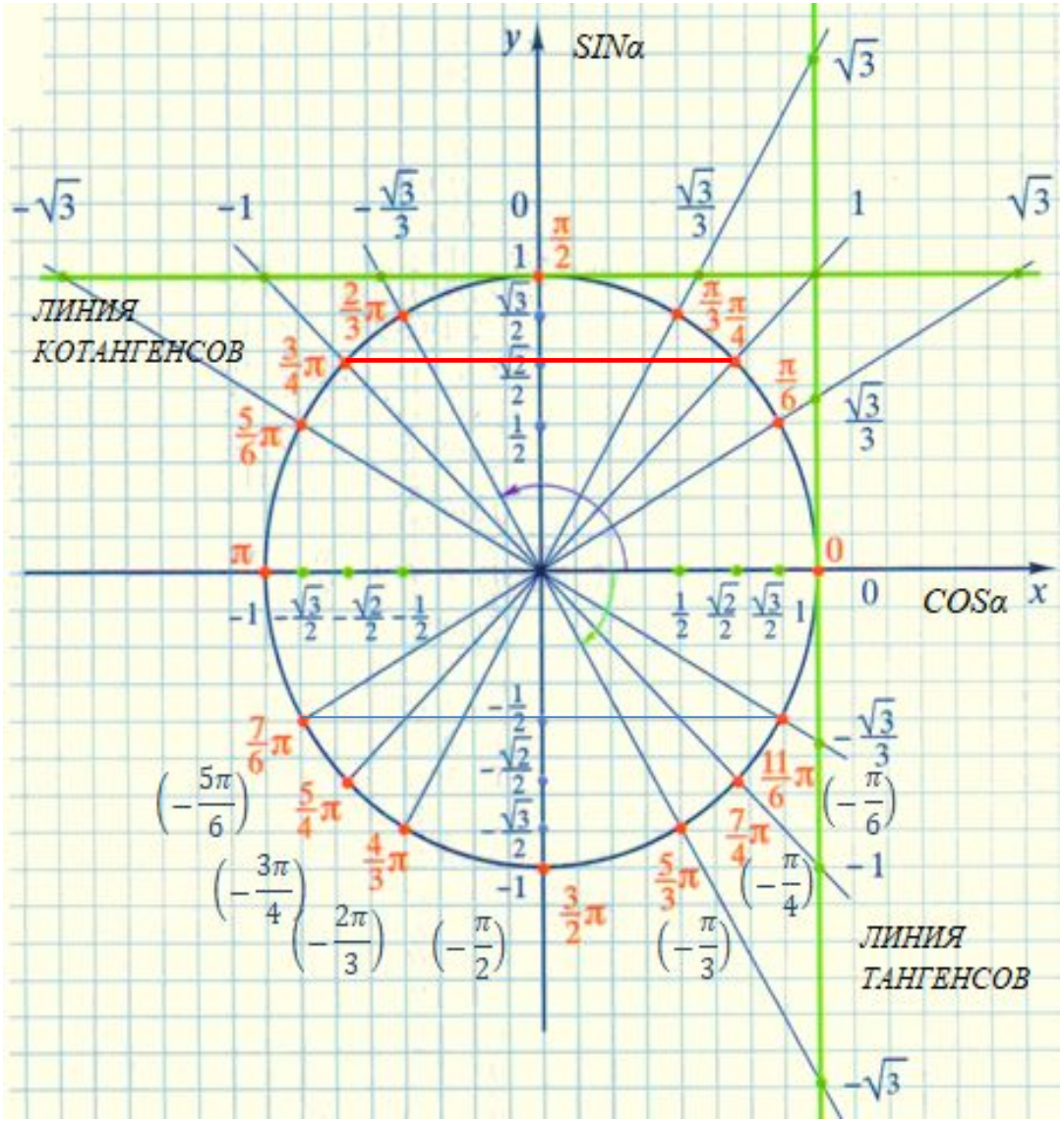
Ответ: $x \in \left[-\frac{3\pi}{4} + 2\pi n, \frac{3\pi}{4} + 2\pi n\right], n \in Z$

2) $cosx < \frac{1}{2}$

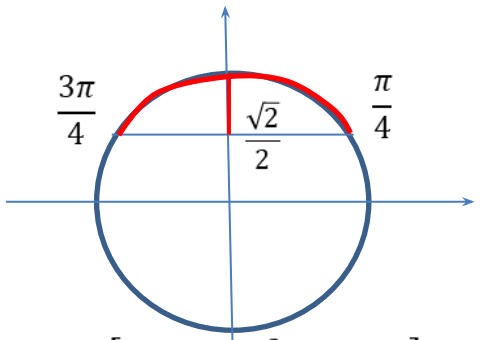


Ответ:

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

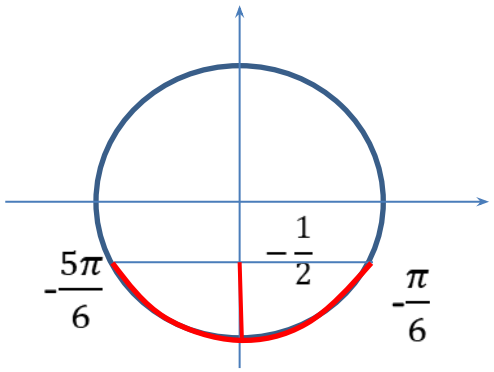


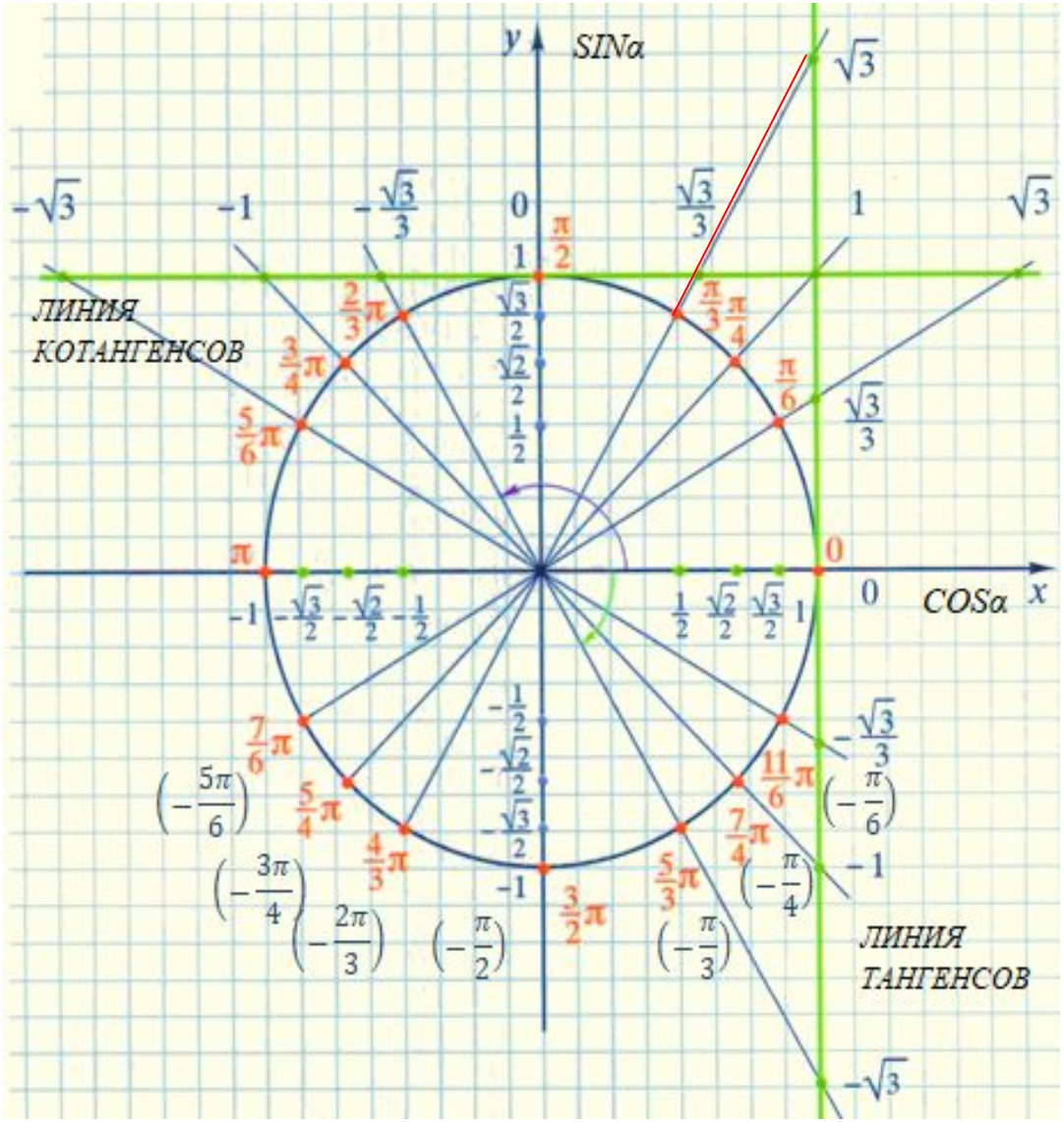
3) $sinx \geq \frac{\sqrt{2}}{2}$



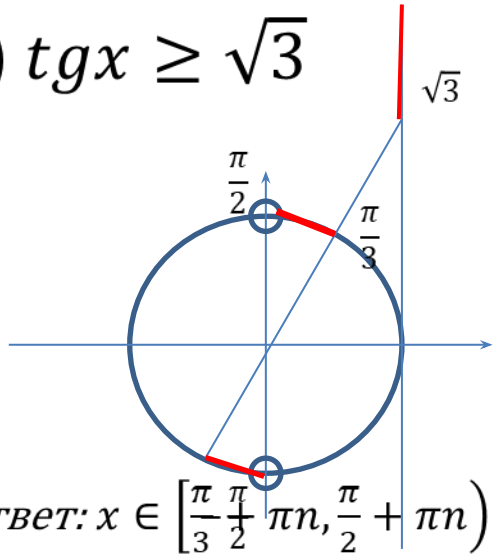
Ответ: $x \in \left[\frac{\pi}{4} + 2\pi n; \frac{3\pi}{4} + 2\pi n\right], n \in Z$

4) $sinx < -\frac{1}{2}$



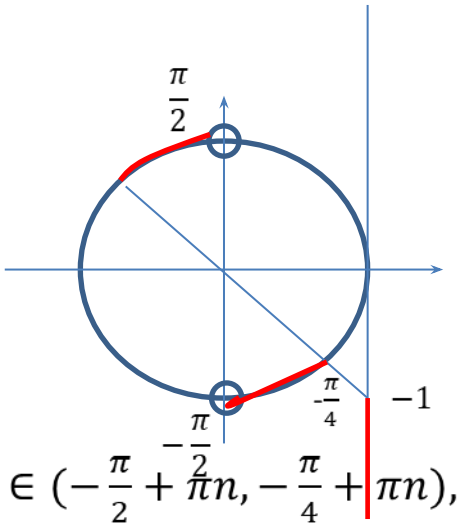


5) $tgx \geq \sqrt{3}$

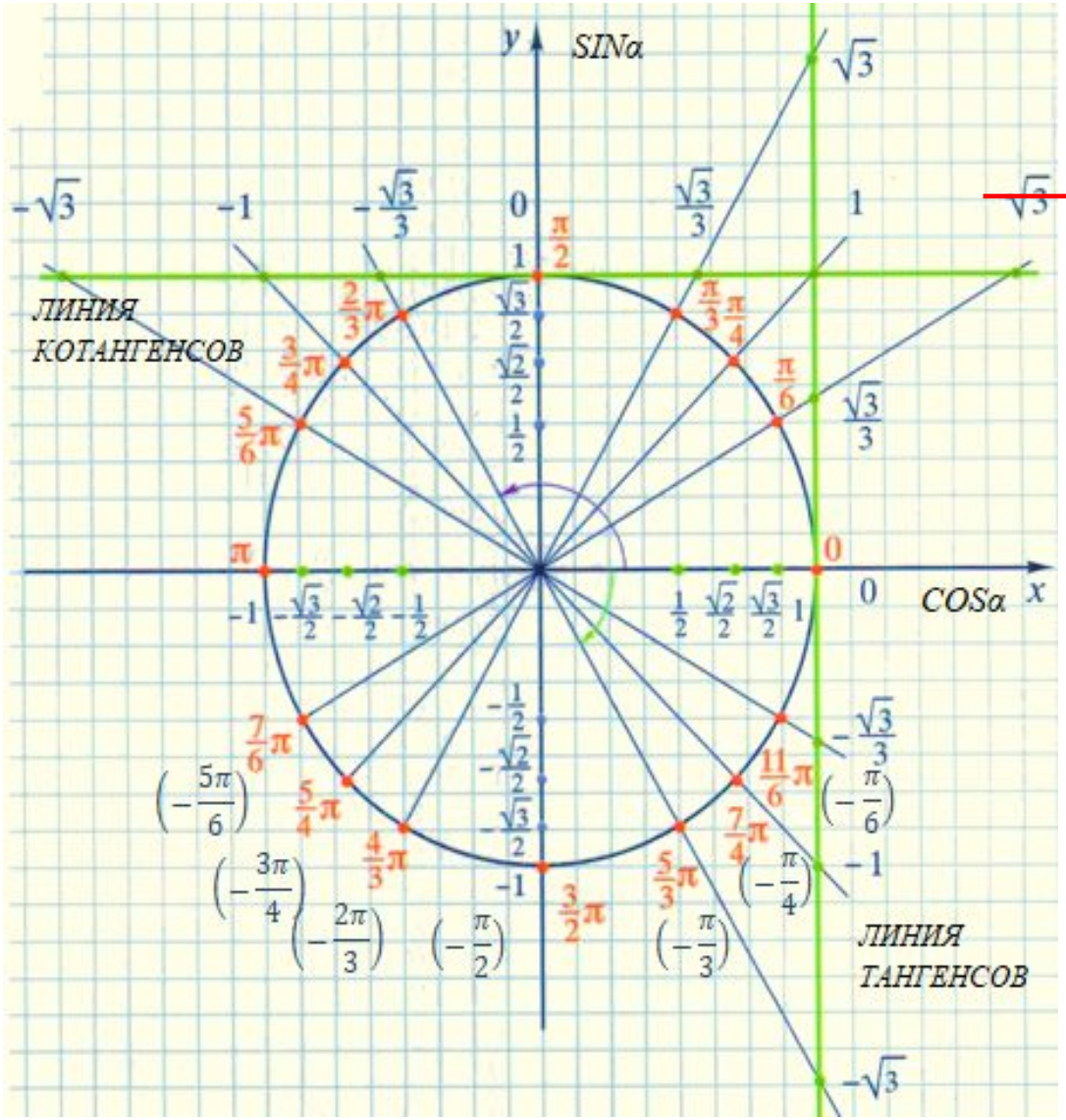


Ответ: $x \in \left[\frac{\pi}{3} + \pi n, \frac{\pi}{2} + \pi n\right), n \in Z$

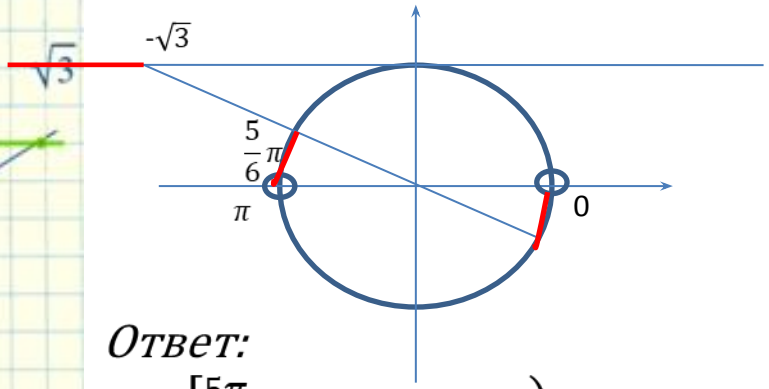
6) $tgx < -1$



Ответ: $x \in (-\frac{\pi}{2} + \pi n, -\frac{\pi}{4} + \pi n), n \in Z$



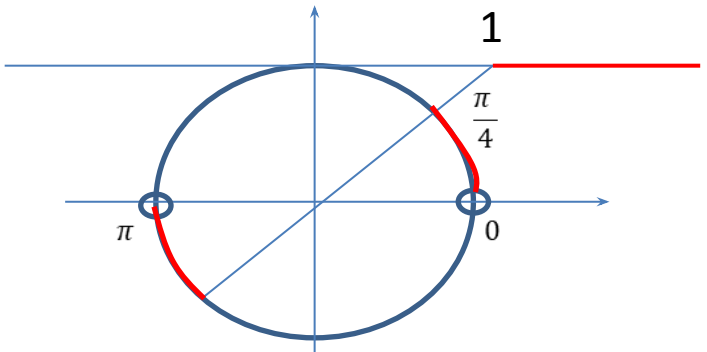
7) $ctgx \leq -\sqrt{3}$



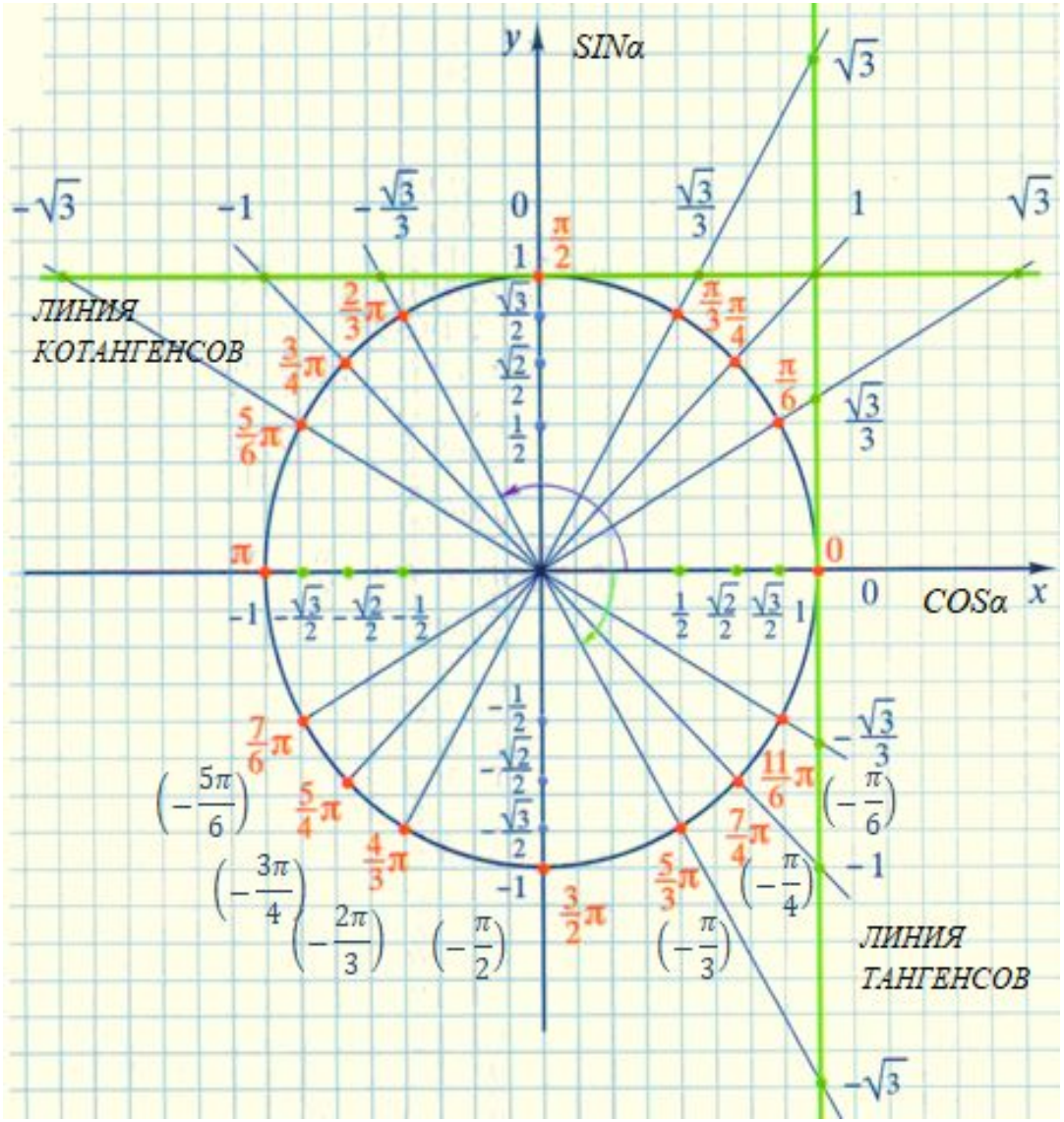
Ответ:

$x \in \left[\frac{5\pi}{6} + \pi n; \pi + \pi n\right), n \in Z$

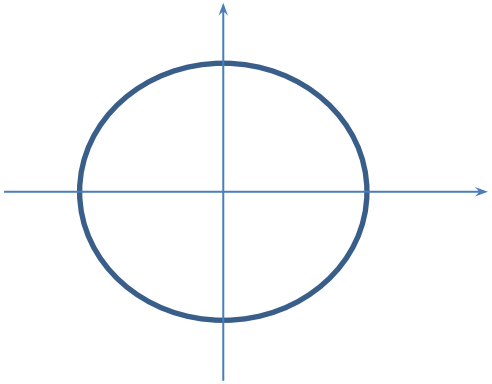
8) $ctgx \geq 1$



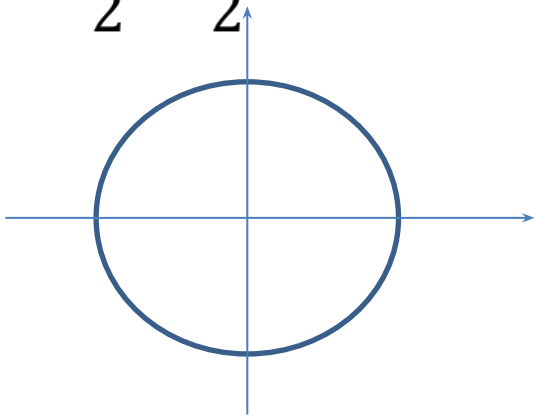
$x \in \left(\pi n, \frac{\pi}{4} + \pi n\right], n \in Z$

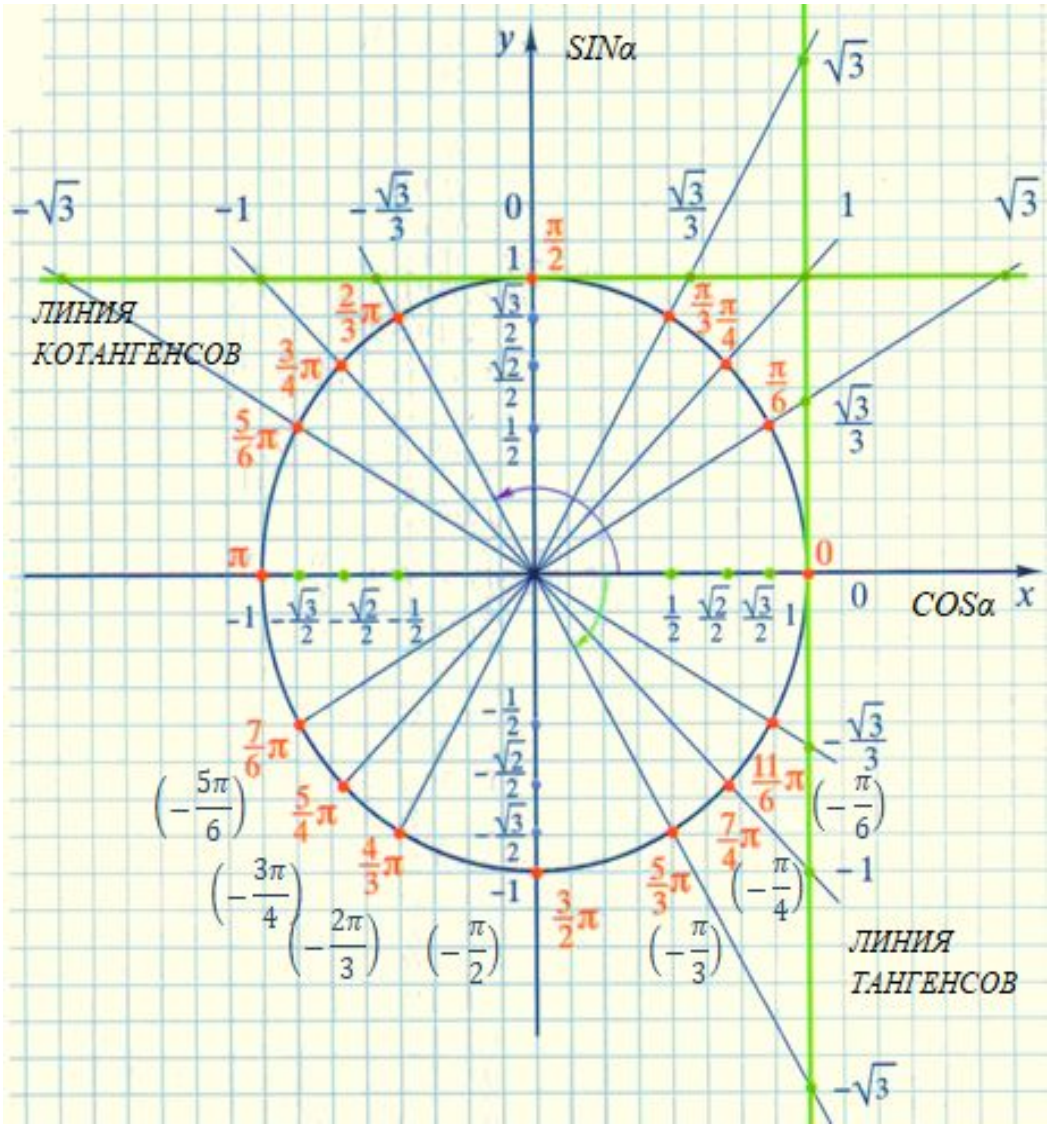


9) $sin3x \leq \frac{\sqrt{3}}{2}$

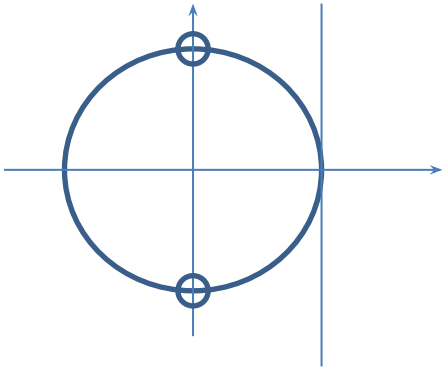


10) $cos\frac{x}{2} \geq \frac{1}{2}$

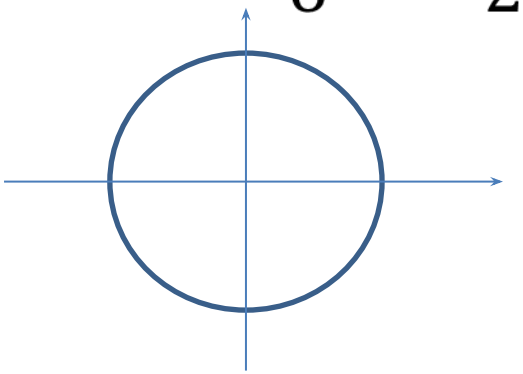




11) $tg2x \leq 1$



12) $\cos(x - \frac{\pi}{6}) \geq \frac{\sqrt{3}}{2}$



- $1)\ sinx \leq \frac{\sqrt{3}}{2}$ $2)\ cosx \geq \frac{\sqrt{2}}{2}$

$3)\ tgx \geq -1;$ $4)\ cosx \leq -\frac{1}{2};$

$5)\ tgx \geq -\frac{\sqrt{3}}{3};$ $6)\ ctg\frac{x}{3} < \sqrt{3};$

$7)\ cos4x \geq -\frac{\sqrt{2}}{2};$ $8)\ sin2x > \frac{1}{2};$

$9)\ cos\left(x - \frac{\pi}{4}\right) \geq \frac{\sqrt{2}}{2};$ $10)\ sin\left(x + \frac{\pi}{6}\right) \leq \frac{1}{2}$