



## Exercícios: Inequações trigonométricas

Resolva as inequações para  $0 \leq x < 2\pi$ .

1.  $\operatorname{sen} x \geq \frac{1}{2}$

2.  $\operatorname{cos} x < \frac{1}{2}$

3.  $x < \frac{\sqrt{3}}{2}$

4.  $\operatorname{sen} x > \frac{\sqrt{2}}{2}$

5.  $\operatorname{sen} x \leq -\frac{1}{2}$

6.  $\operatorname{cos} x \geq 0$

Gabarito:

1.  $S = \left\{ x \in \mathbb{R} / \frac{\pi}{6} \leq x \leq \frac{5\pi}{6} \right\}$

2.  $S = \left\{ x \in \mathbb{R} / \frac{\pi}{3} < x < \frac{5\pi}{3} \right\}$

3.  $S = \left\{ x \in \mathbb{R} / 0 \leq x < \frac{\pi}{3} \text{ ou } \frac{2\pi}{3} < x \leq 2\pi \right\}$

4.  $S = \left\{ x \in \mathbb{R} / \frac{\pi}{4} < x < \frac{3\pi}{4} \right\}$

5.  $S = \left\{ x \in \mathbb{R} / \frac{7\pi}{6} \leq x \leq \frac{11\pi}{6} \right\}$

6.  $S = \left\{ x \in \mathbb{R} / 0 \leq x \leq \frac{\pi}{2} \text{ ou } \frac{3\pi}{2} \leq x \leq 2\pi \right\}$