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## Inéquations trigonométriques

- Résoudre les inéquations trigonométriques suivantes et représenter les solutions sur le cercle trigonométrique

1)  $\sin(x) > \frac{1}{2}$

2)  $\sqrt{2} \cos(2x) \leq -1$

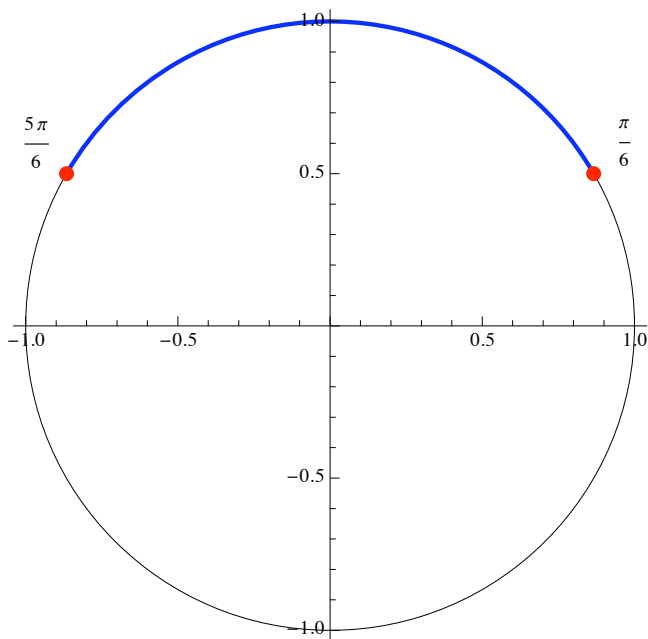
3)  $\cos(2x) > 0$

4)  $\operatorname{tg}(3x) + 1 \geq 0$

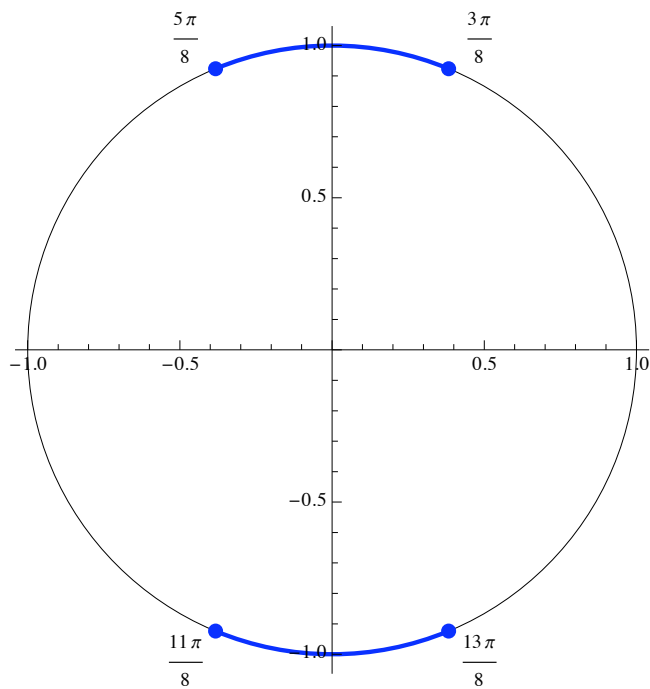
5)  $\sqrt{3} \operatorname{tg}(2x) \leq -1$

- Solutions

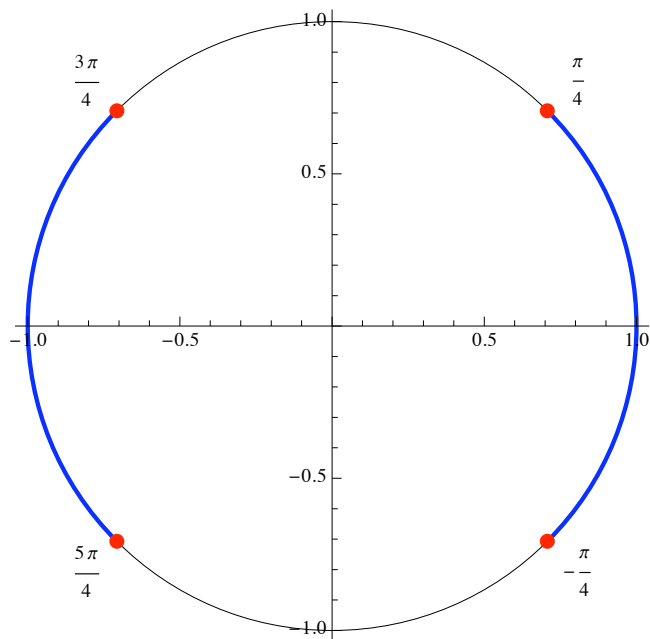
1)  $2\pi k + \frac{\pi}{6} < x < 2\pi k + \frac{5\pi}{6}$



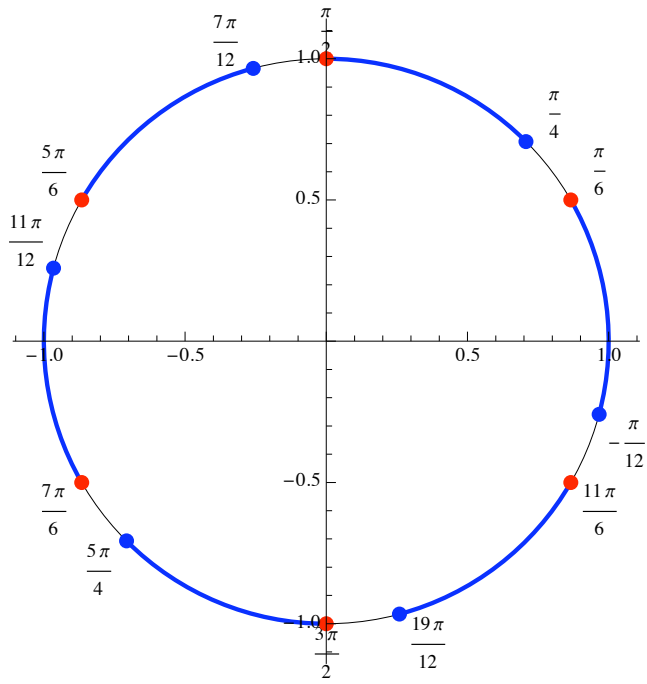
2)  $\pi k + \frac{3\pi}{8} \leq x \leq \pi k + \frac{5\pi}{8}$



$$3) k\pi - \frac{\pi}{4} < x < \pi k + \frac{\pi}{4}$$



$$4) \frac{k\pi}{3} - \frac{\pi}{12} \leq x < \frac{\pi k}{3} + \frac{\pi}{6}$$



$$5) \frac{k\pi}{2} - \frac{\pi}{4} < x \leq \frac{k\pi}{2} - \frac{\pi}{12}$$

