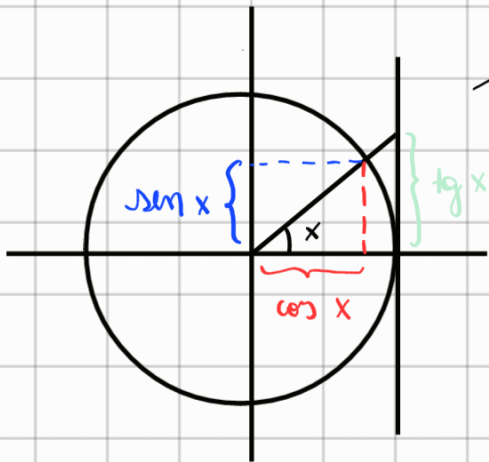
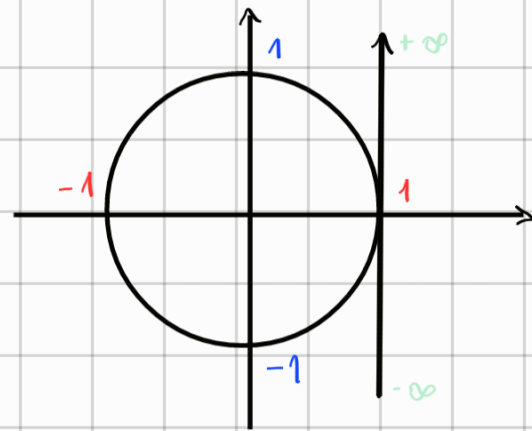
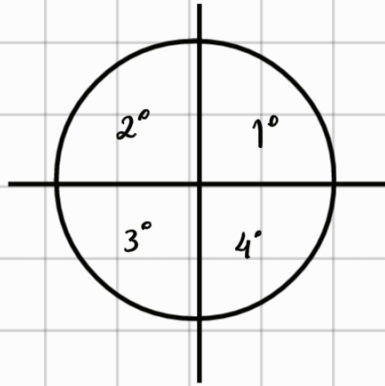
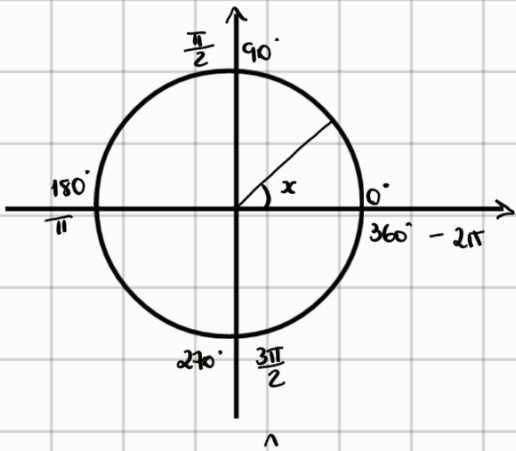
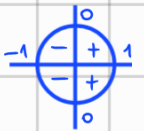


Funções trigonométricas

→ Todas as funções trigonométricas podem ser entendidas com ajuda do círculo trigonométrico.



$$\sin^2(x) + \cos^2(x) = 1^2$$



Complementos

$$\sin(90^\circ - x) = \cos x$$

$$\cos(90^\circ - x) = \sin x$$

Exemplo

Determine os valores de m para que a equação $\sin x = \frac{5m-2}{3}$ seja verdadeira.

$$-1 \leq \frac{5m-2}{3} \leq 1$$

$$-3 \leq 5m-2 \leq 3 \rightarrow -1 \leq 5m \leq 5 \rightarrow \boxed{-\frac{1}{5} \leq m \leq 1}$$

Resolva:

$$2) \frac{\sin \frac{3\pi}{2} - \cos \pi + 5 \cdot \sin \frac{\pi}{2}}{3 \cos \frac{\pi}{2} + \cos 2\pi - \sin 2\pi} = \frac{(-1) - (-1) + 5 \cdot 1}{3 \cdot 0 + 1 - 0} = 5$$