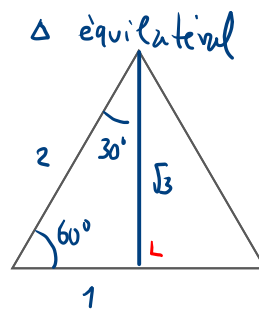
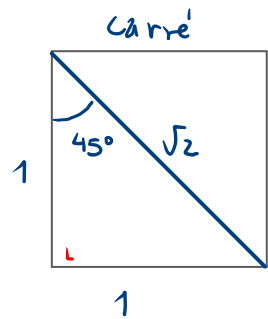


08.04.25

# Les rapports trigonométriques de la tangente

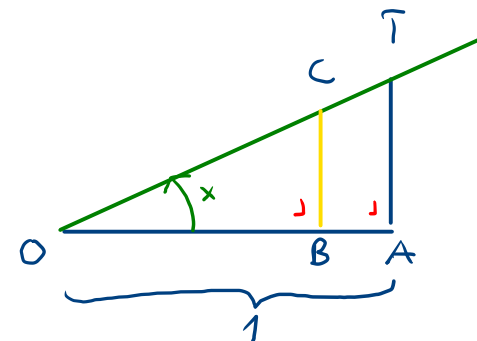
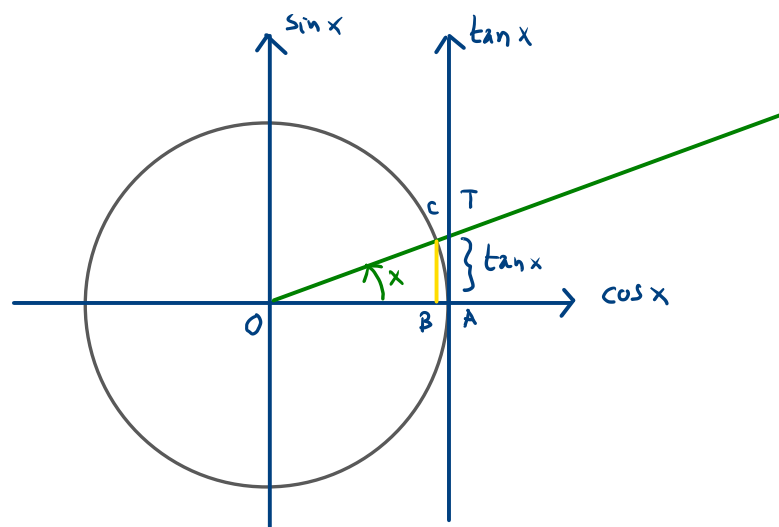


$$\tan(45^\circ) = \frac{1}{1} = 1$$

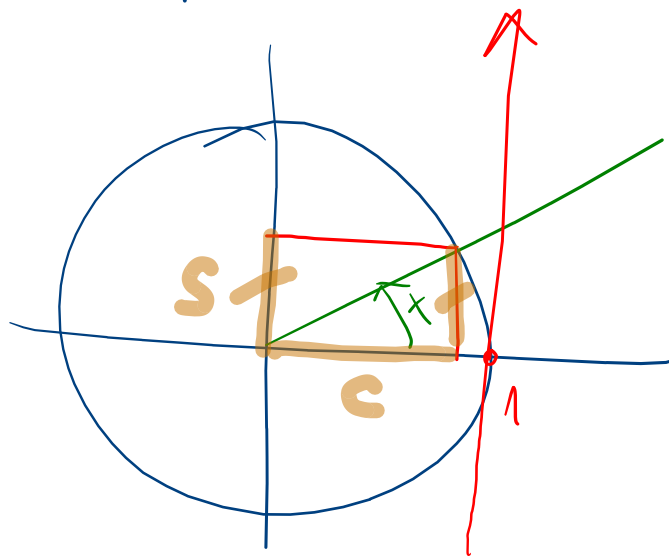
$$\tan(30^\circ) = \frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3} ; \tan(60^\circ) = \frac{\sqrt{3}}{1} = \sqrt{3}$$

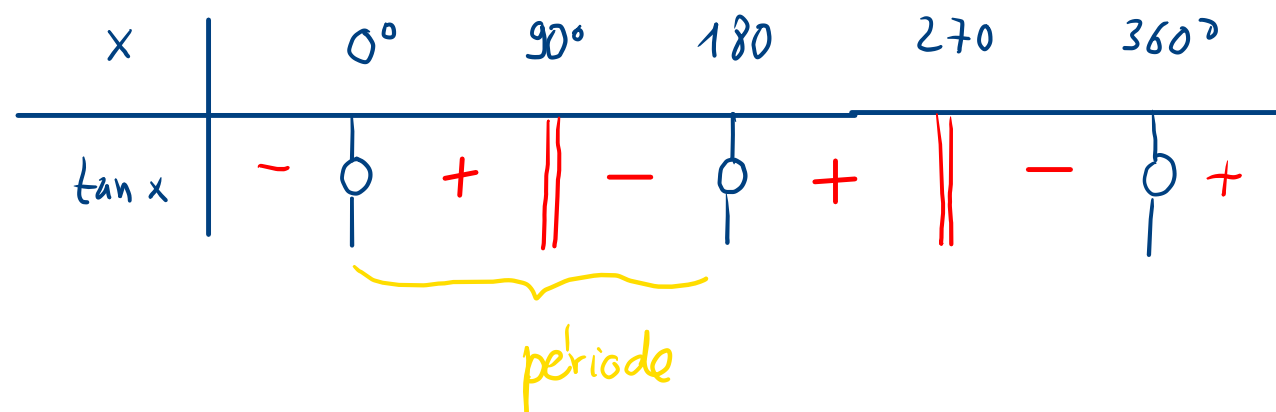
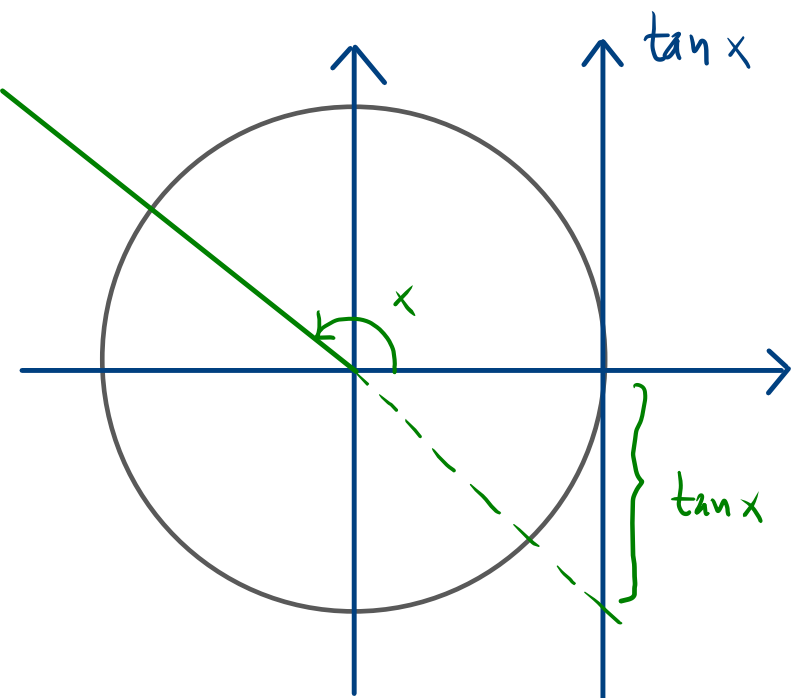
$$\frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$$

$\approx 1$

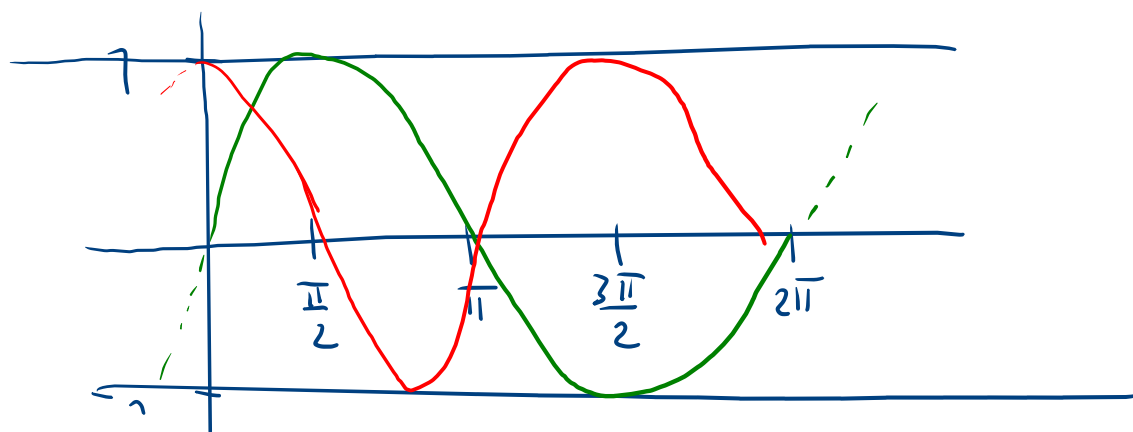


$$\tan x = \frac{CB}{OB} = \frac{\sin x}{\cos x} = \frac{AT}{OA} = \frac{AT}{1} = AT$$



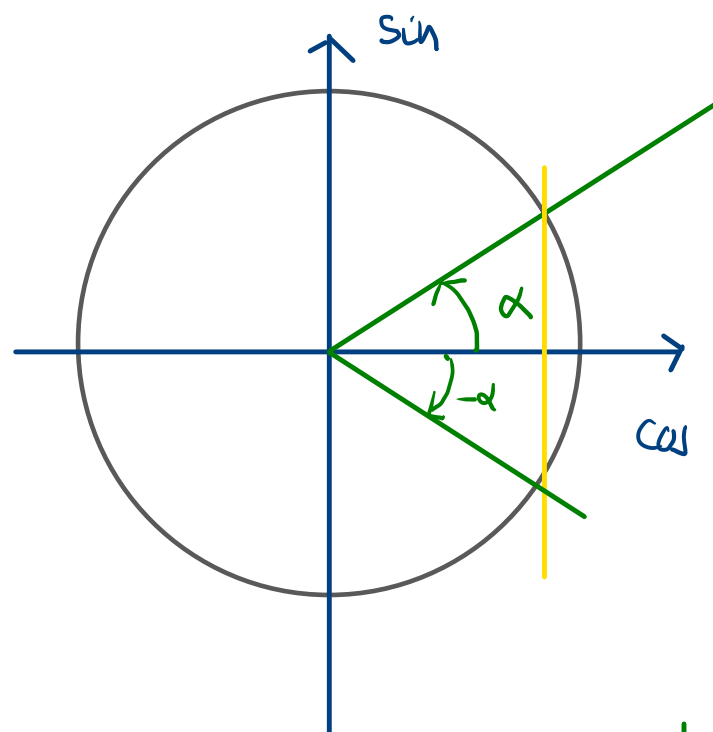


- $\tan(x) = \tan(x + k \cdot 180^\circ)$  ,  $k \in \mathbb{Z}$
- $\tan(x) \in \mathbb{R}$



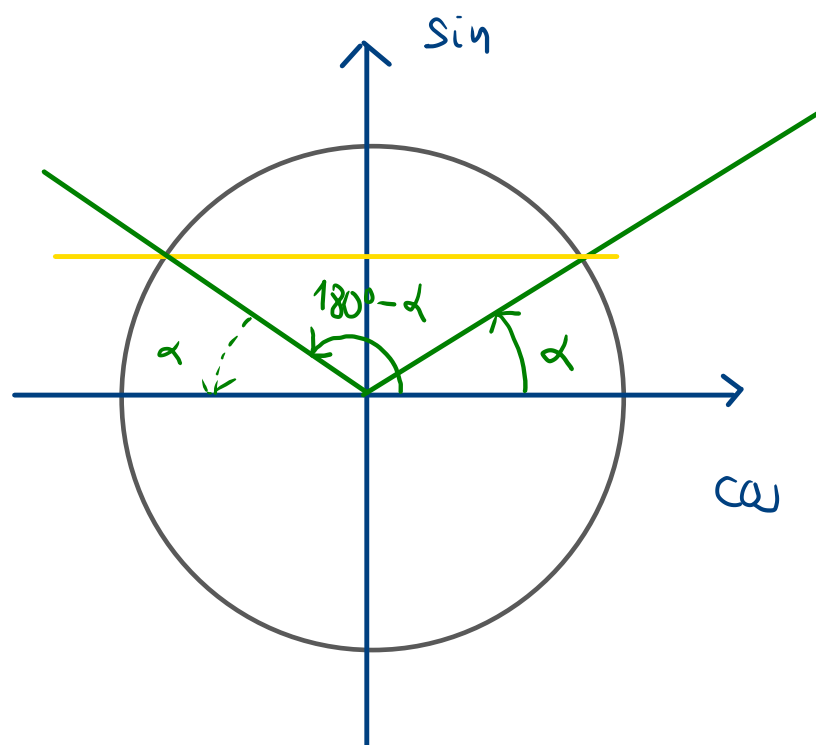
## Equation trigo

Deux règles :



$$\cos(\alpha) = \cos(-\alpha)$$

Deux angles ayant même cosinus sont égaux ou opposés



$$\sin(\alpha) = \sin(180^\circ - \alpha)$$

Deux angles ayant même sinus sont égaux ou supplémentaires

4.3.3 Résoudre les équations suivantes en donnant les solutions en degrés.

c)  $\tan(t) = -0.754$

d)  $\cos(t) = -1.43$

c)  $\tan(t) = -0,754 \quad \overset{\text{TI}}{\Rightarrow} \quad t = -37,02^\circ$

$\Rightarrow \underline{t = -37,02^\circ + k \cdot 180^\circ = 142,98^\circ + k \cdot 180^\circ}$

d) impossible !

