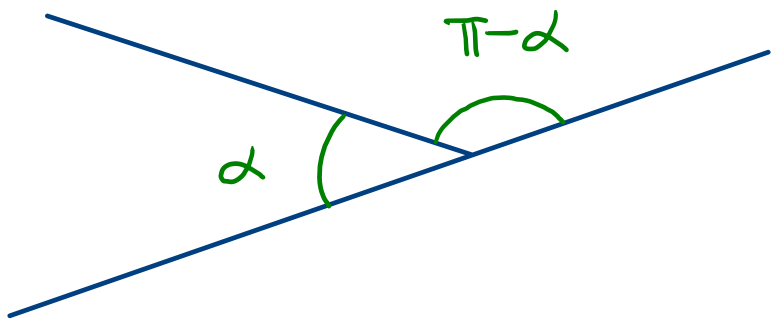
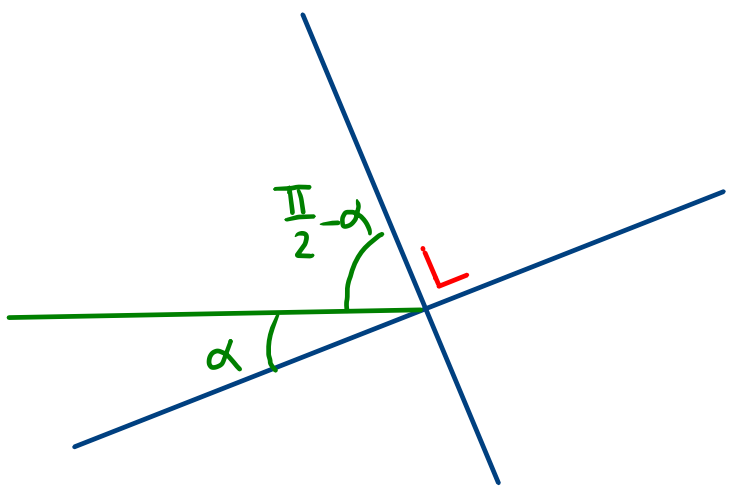
11.02.26

Angles associés

1) α et $\pi - \alpha$ sont supplémentaires

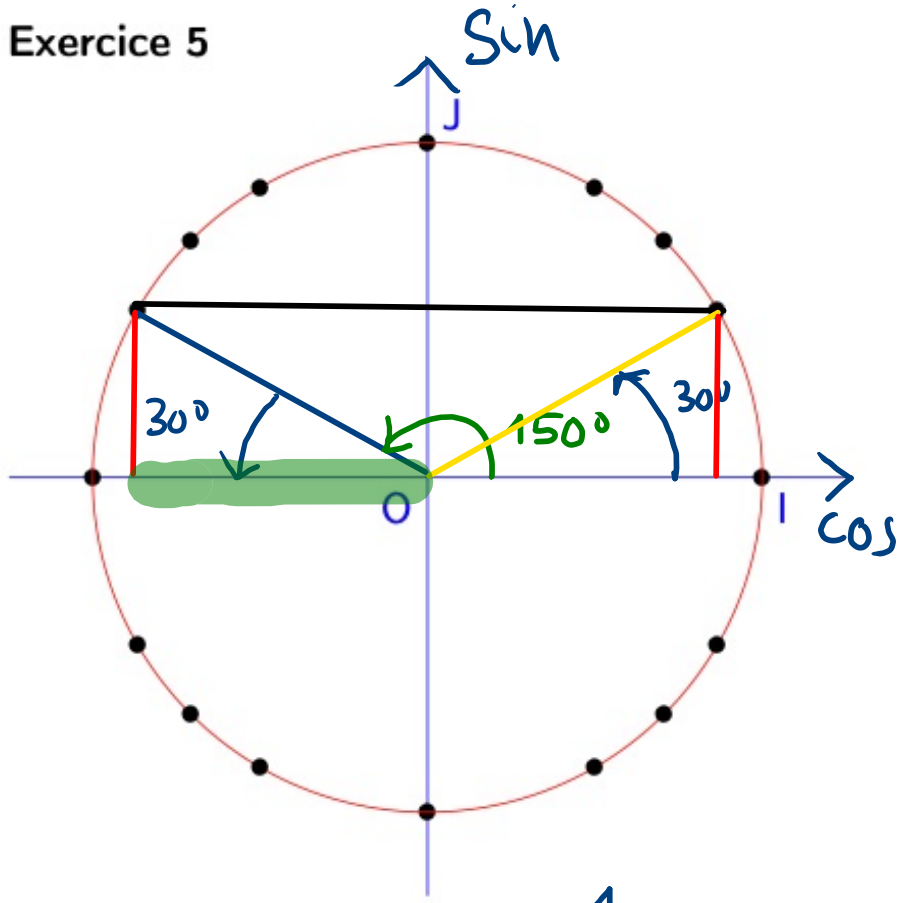


2) α et $\frac{\pi}{2} - \alpha$ sont complémentaires



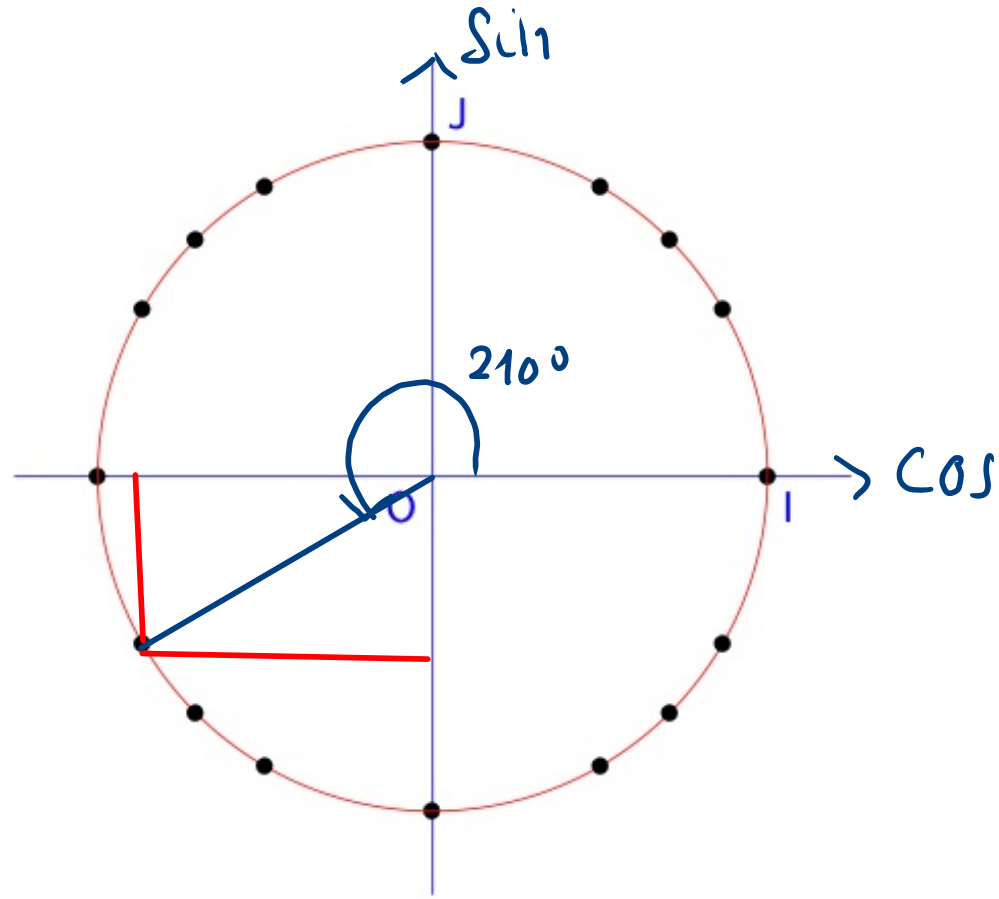
3) α et $-\alpha$ sont opposés

Exercice 5



$\sin(150°) = \sin(30°) = \frac{1}{2}$

$\cos(150°) = -\cos(30°) = -\frac{\sqrt{3}}{2}$

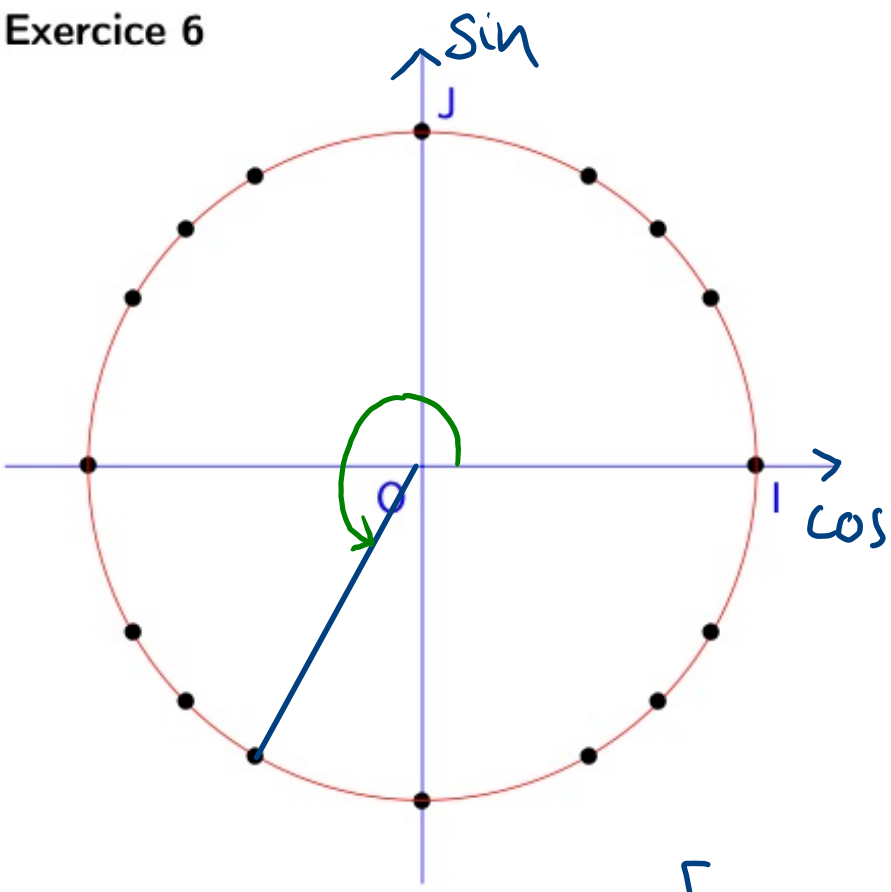


$\sin(210°) = -\frac{1}{2}$

$\cos(210°) = -\frac{\sqrt{3}}{2}$

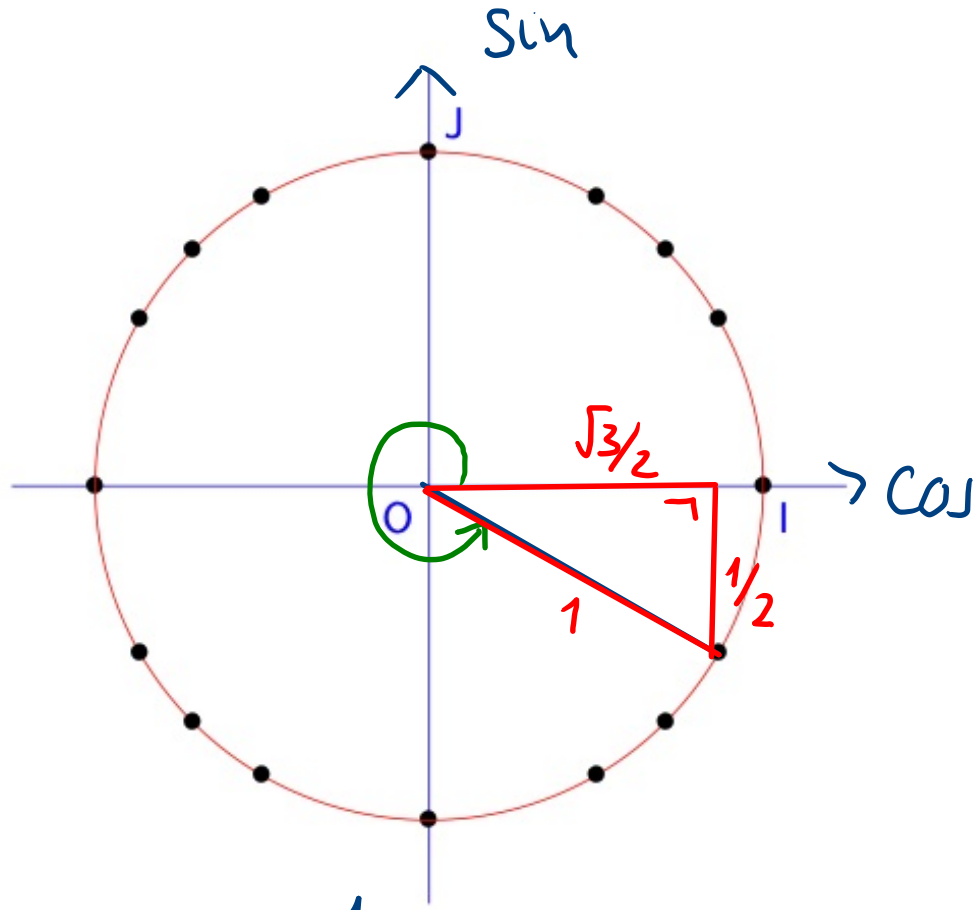
$\sin(\alpha) = \sin(\pi - \alpha)$

Exercice 6



$\sin(\frac{4\pi}{3}) =$ Sin(240°) $= -\frac{\sqrt{3}}{2}$

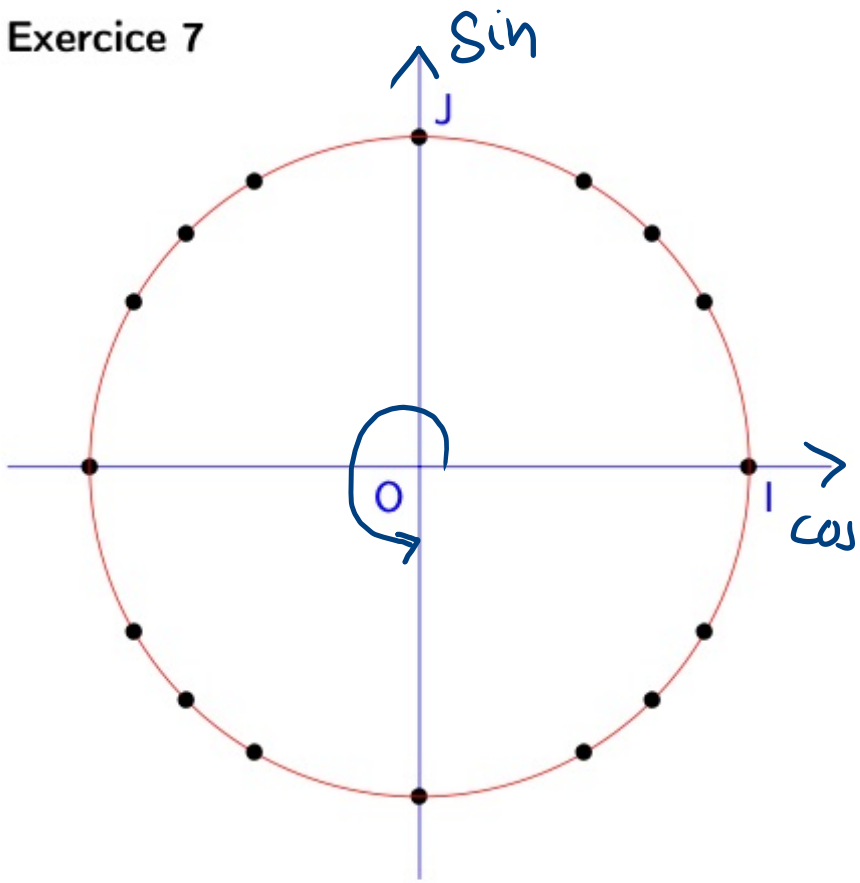
$\cos(\frac{4\pi}{3}) =$ Cos(240°) $= -\frac{1}{2}$



$\sin(330°) = -\frac{1}{2}$

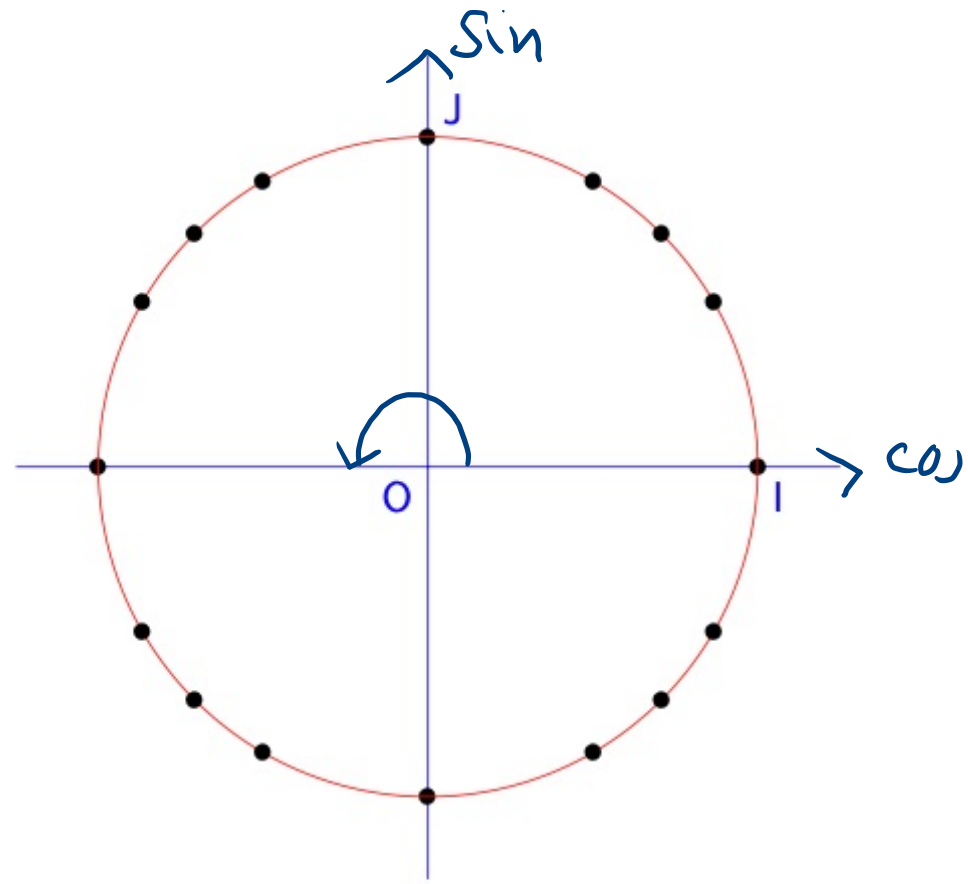
$\cos(330°) = \frac{\sqrt{3}}{2}$

Exercice 7



$\sin(270°) =$ -1

$\cos(270°) =$ 0



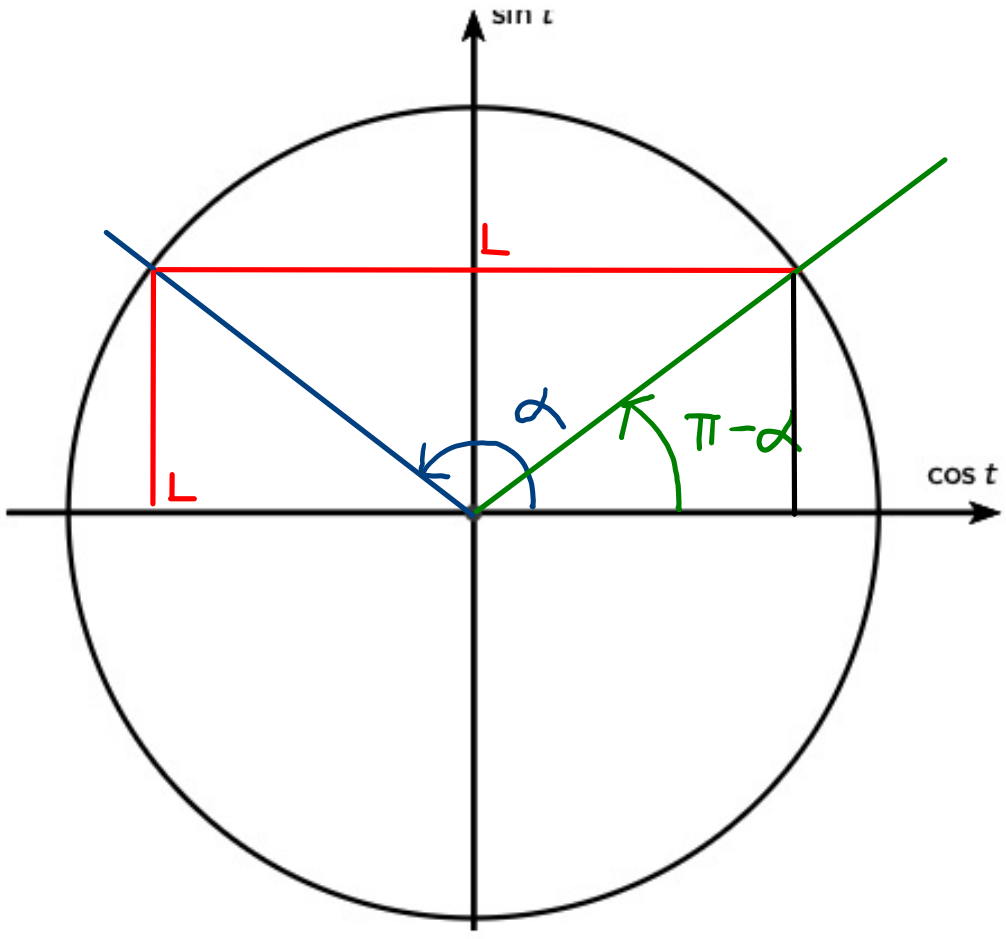
$\sin(\pi) =$ 0

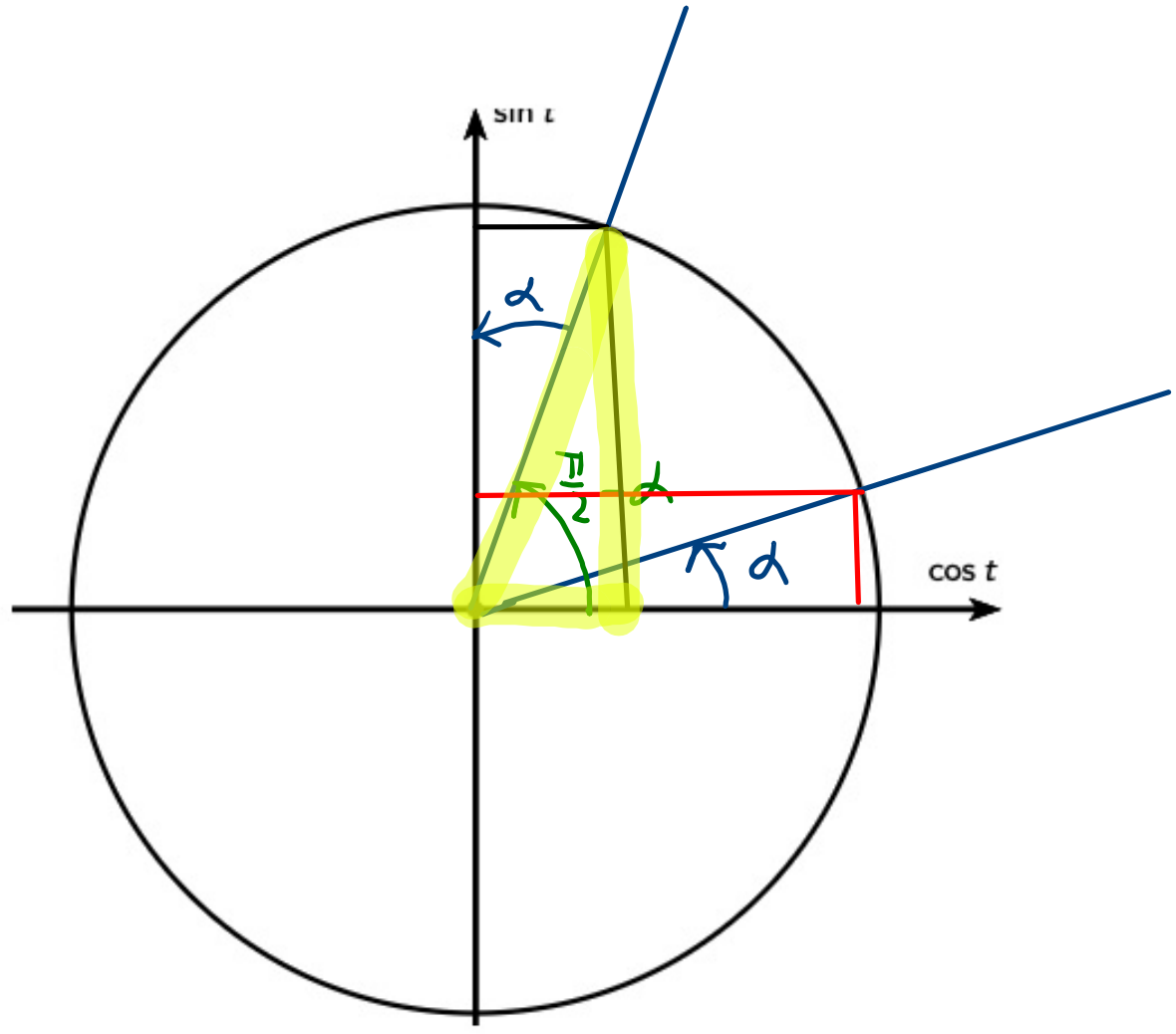
$\cos(\pi) =$ -1

Exercice 3

x	$0°$ 0 rad	$30°$ $\frac{\pi}{6}$ rad	$45°$ $\frac{\pi}{4}$ rad	$60°$ $\frac{\pi}{3}$ rad	$90°$ $\frac{\pi}{2}$ rad
$\sin(x)$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos(x)$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0

Exercice 9





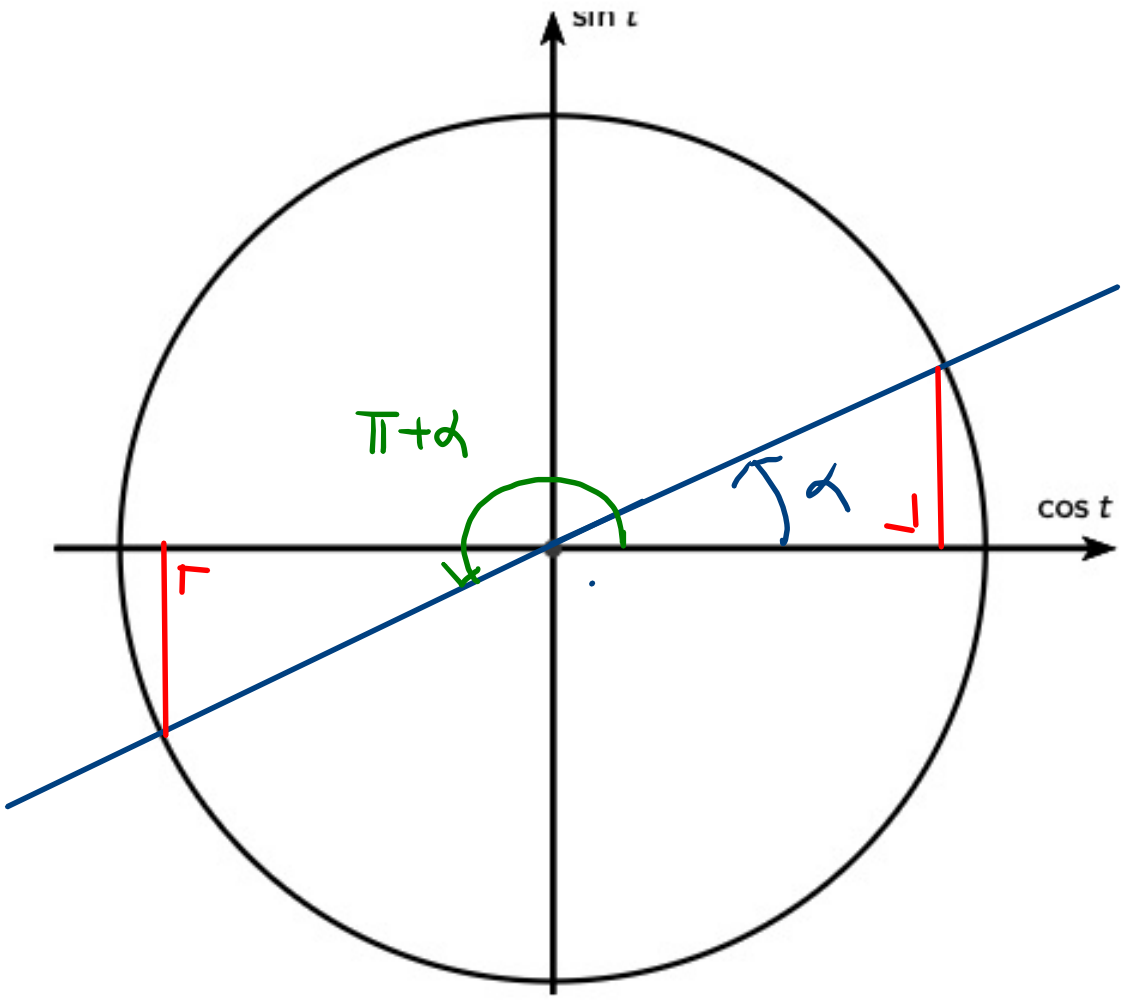
$$\cos(\pi - \alpha) = -\cos(\alpha)$$

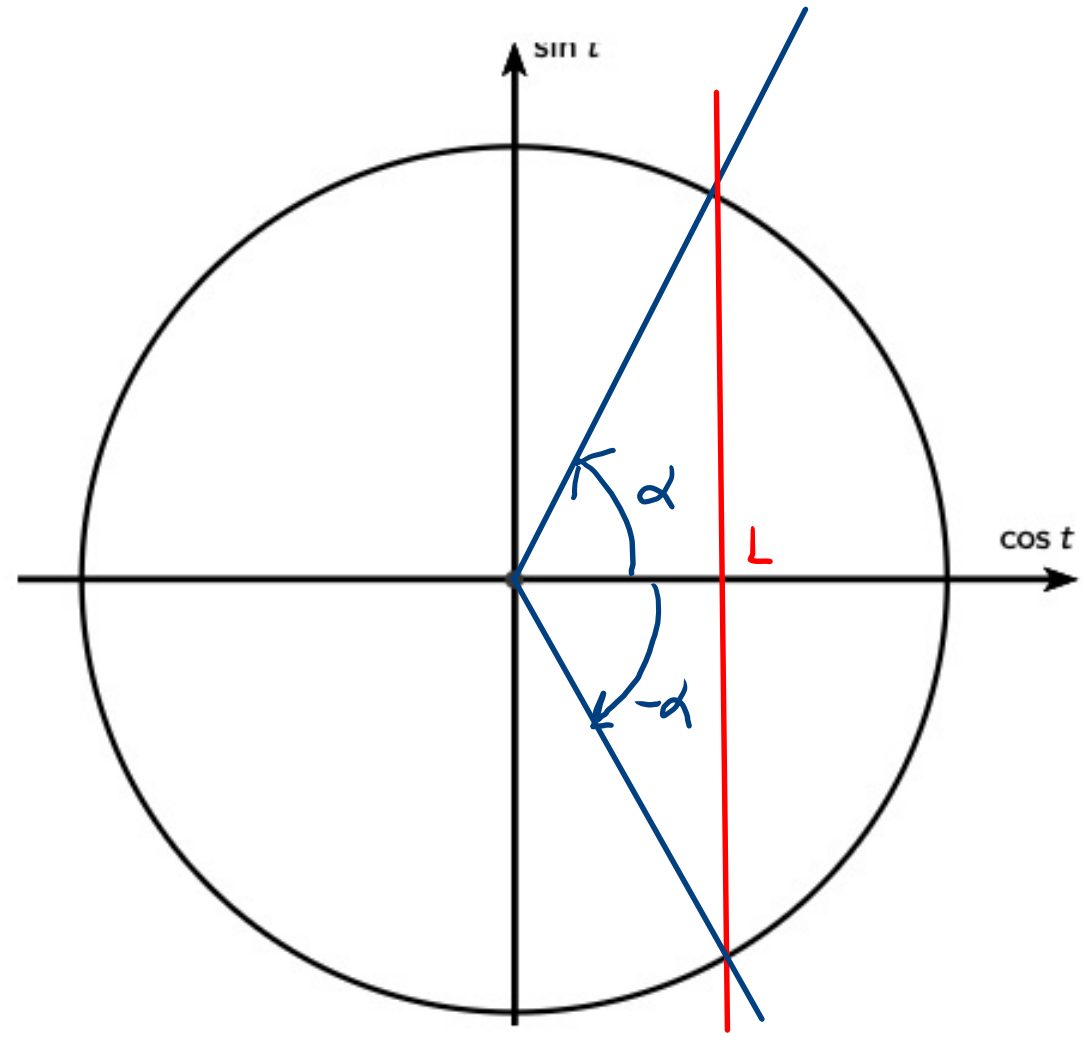
$$\sin(\pi - \alpha) = \sin(\alpha)$$

$$\cos\left(\frac{\pi}{2} - \alpha\right) = \sin(\alpha)$$

$$\sin\left(\frac{\pi}{2} - \alpha\right) = \cos(\alpha)$$

Exercice 9





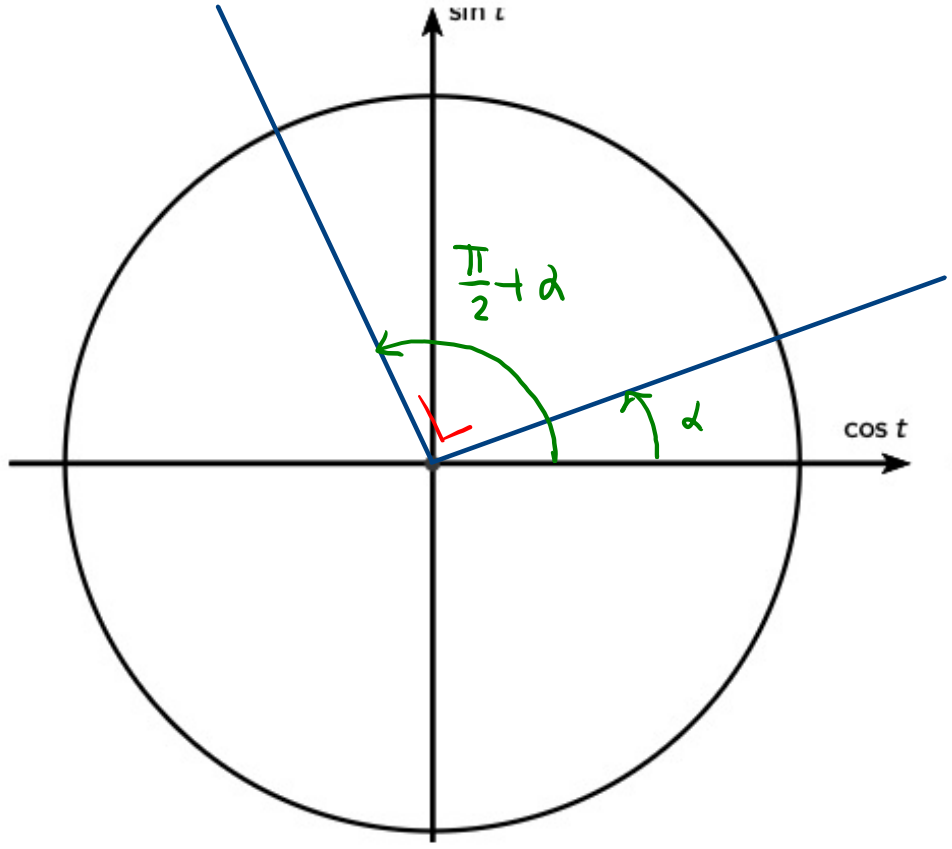
$\cos(\pi+\alpha) = -\cos(\alpha)$

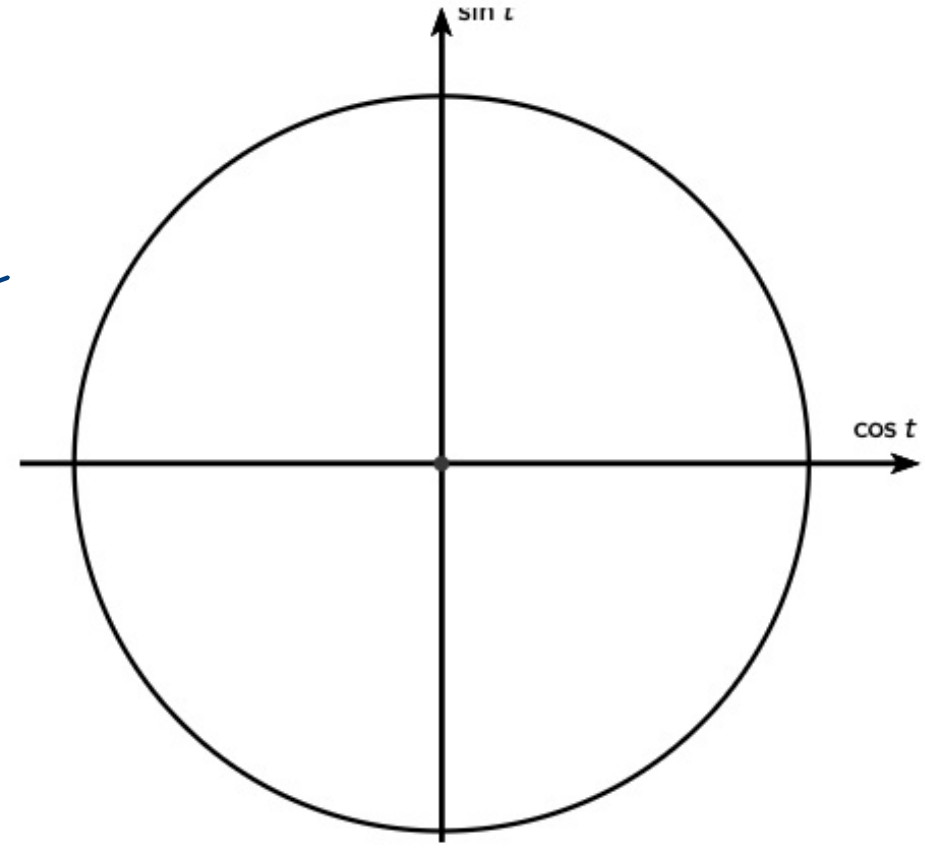
$\sin(\pi+\alpha) = -\sin(\alpha)$

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

$\sin(-\alpha) = -\sin(\alpha)$

Exercice 9





$\sin\left(\frac{\pi}{2}+\alpha\right) = \cos(\alpha)$

$\cos\left(\frac{\pi}{2}+\alpha\right) = -\sin(\alpha)$

$\sin(\alpha + 2k\pi) = \sin(\alpha)$

$\cos(\alpha + 2k\pi) = \cos(\alpha)$

$k \in \mathbb{Z}$