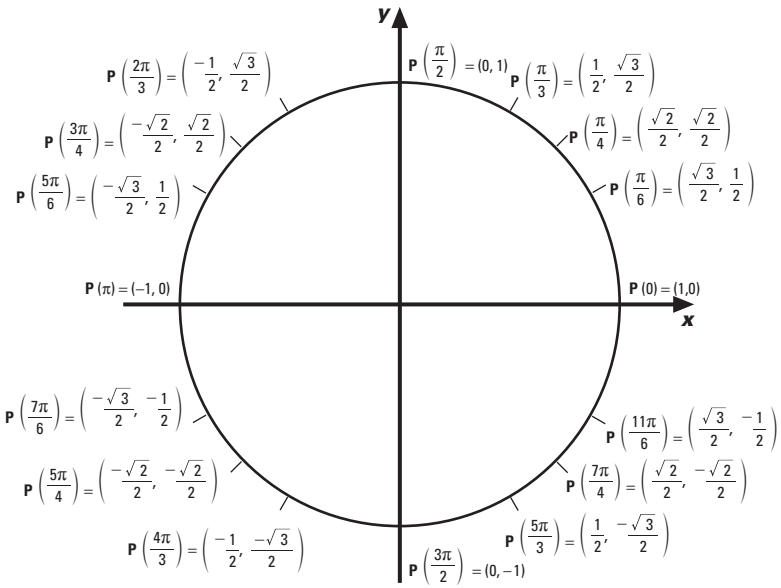
Principaux points du cercle trigonométrique



Identités trigonométriques fondamentales

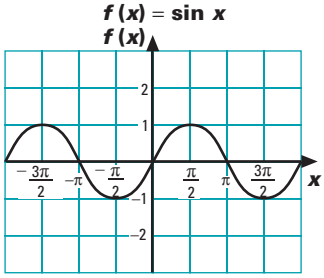
- $\sin^2 A + \cos^2 A = 1$
- $\tan^2 A + 1 = \sec^2 A$
- $\text{cotan}^2 A + 1 = \text{cosec}^2 A$

Identités trigonométriques complémentaires

- $\sin (A + B) = \sin A \cos B + \cos A \sin B$
- $\cos (A + B) = \cos A \cos B - \sin A \sin B$
- $\sin (A - B) = \sin A \cos B - \cos A \sin B$
- $\cos (A - B) = \cos A \cos B + \sin A \sin B$
- $\tan (A + B) = \dfrac{\tan A + \tan B}{1 - \tan A \tan B}$ où $(1 - \tan A \tan B) \neq 0$
- $\tan (A - B) = \dfrac{\tan A - \tan B}{1 + \tan A \tan B}$ où $(1 + \tan A \tan B) \neq 0$
- $\sin 2A = 2 \sin A \cos A$
- $\cos 2A = \cos^2 A - \sin^2 A$
- $\tan 2A = \dfrac{2 \tan A}{1 - \tan^2 A}$ où $(1 - \tan^2 A) \neq 0$
- $\sin (-A) = -\sin A$
- $\cos (-A) = \cos A$
- $\tan (-A) = -\tan A$

Représentation graphique des fonctions sinus, cosinus et tangente

$f(x) = \sin x$

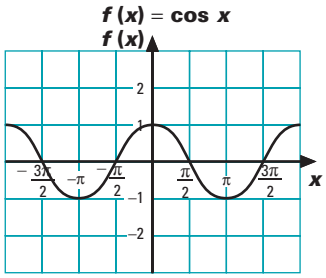


Période : 2π

Zéros : $\{\ldots, -\pi, 0, \pi, \ldots\}$

Minimum : -1 Maximum : 1

$f(x) = \cos x$

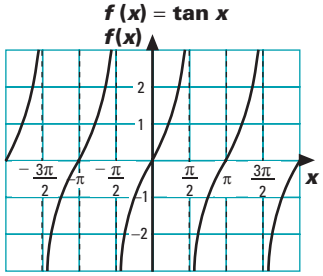


Période : 2π

Zéros : $\left\{\ldots, -\dfrac{3\pi}{2}, -\dfrac{\pi}{2}, \dfrac{\pi}{2}, \dfrac{3\pi}{2}, \ldots\right\}$

Minimum : -1 Maximum : 1

$f(x) = \tan x$



Période : π

Zéros : $\{\ldots, -\pi, 0, \pi, \ldots\}$

Asymptotes : $x = -\dfrac{3\pi}{2}, -\dfrac{\pi}{2}, \dfrac{\pi}{2}, \dfrac{3\pi}{2}, \ldots$