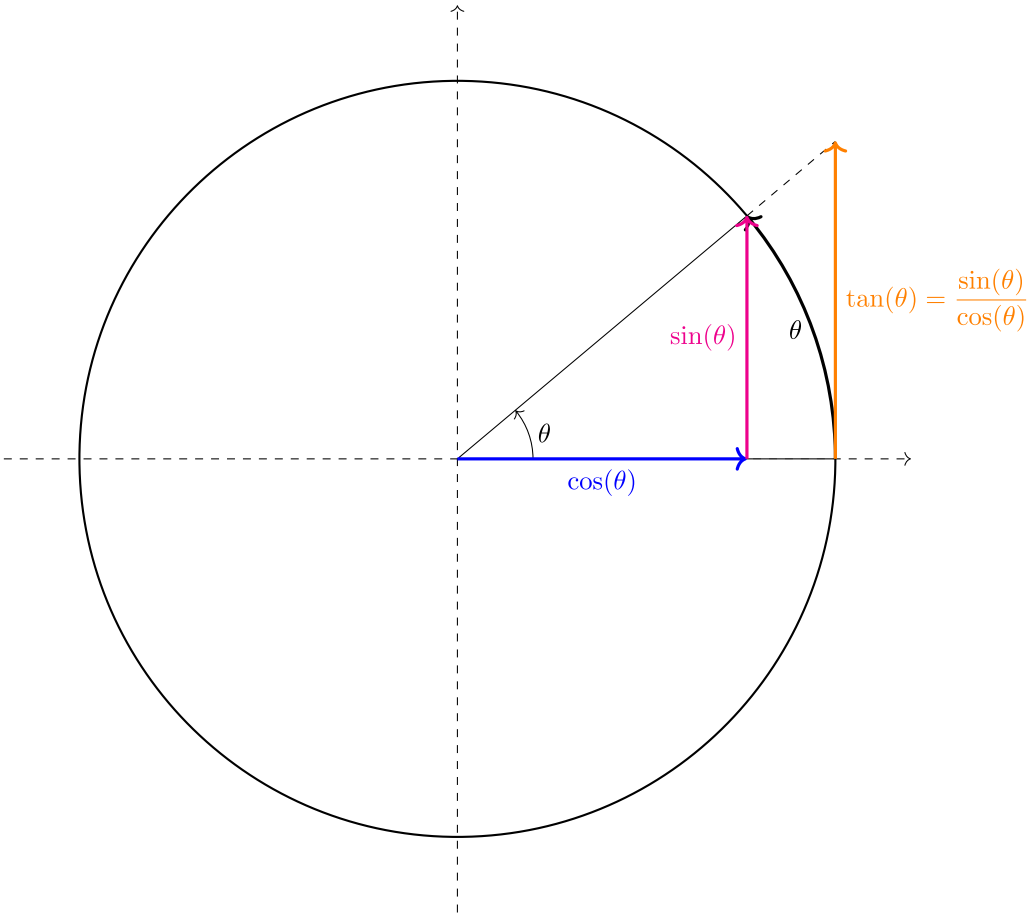
Définition géométrique (cercle unité)



Identités trigonométriques

- $\cos^2(\theta) + \sin^2(\theta) = 1$
- $\cos(-\theta) = \cos(\theta)$; $\sin(-\theta) = -\sin(\theta)$
- $\cos(\pi - \theta) = -\cos(\theta)$; $\sin(\pi - \theta) = \sin(\theta)$
- $\cos(\pi + \theta) = -\cos(\theta)$; $\sin(\pi + \theta) = -\sin(\theta)$
- $\cos(\pi/2 - \theta) = \sin(\theta)$; $\sin(\pi/2 - \theta) = \cos(\theta)$
- $\cos(\pi/2 + \theta) = -\sin(\theta)$; $\sin(\pi/2 + \theta) = \cos(\theta)$
- $\cos(a + b) = \cos(a)\cos(b) - \sin(a)\sin(b)$; $\cos(a - b) = \cos(a)\cos(b) + \sin(a)\sin(b)$
- $\sin(a + b) = \sin(a)\cos(b) + \cos(a)\sin(b)$; $\sin(a - b) = \sin(a)\cos(b) - \cos(a)\sin(b)$
- $\cos(a)\cos(b) = \frac{1}{2}(\cos(a - b) + \cos(a + b))$; $\sin(a)\sin(b) = \frac{1}{2}(\cos(a - b) - \cos(a + b))$
- $\sin(a)\cos(b) = \frac{1}{2}(\sin(a + b) + \sin(a - b))$; $\cos(a)\sin(b) = \frac{1}{2}(\sin(a + b) - \sin(a - b))$
- $\cos(p) + \cos(q) = 2\cos\left(\frac{p+q}{2}\right)\cos\left(\frac{p-q}{2}\right)$; $\cos(p) - \cos(q) = -2\sin\left(\frac{p+q}{2}\right)\sin\left(\frac{p-q}{2}\right)$
- $\sin(p) + \sin(q) = 2\sin\left(\frac{p+q}{2}\right)\cos\left(\frac{p-q}{2}\right)$; $\sin(p) + \sin(q) = 2\cos\left(\frac{p+q}{2}\right)\sin\left(\frac{p-q}{2}\right)$
- $\cos(2\theta) = \cos^2(\theta) - \sin^2(\theta) = 2\cos^2(\theta) - 1 = 1 - 2\sin^2(\theta)$; $\sin(2\theta) = 2\sin(\theta)\cos(\theta)$
- $\cos^2(\theta) = \dfrac{1 + \cos(2\theta)}{2}$; $\sin^2(\theta) = \dfrac{1 - \cos(2\theta)}{2}$; $\cos(\theta)\sin(\theta) = \dfrac{\sin(2\theta)}{2}$