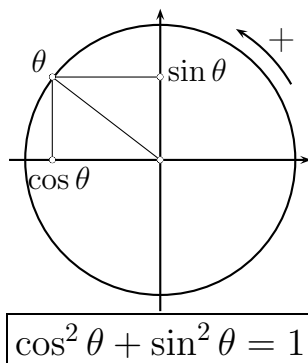
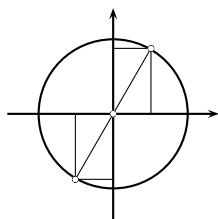


FORMULAIRE DE TRIGONOMÉTRIE



Symétries du cercle trigonométrique

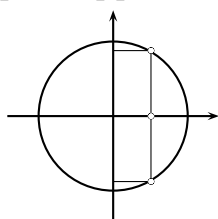
par rapport au centre



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

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

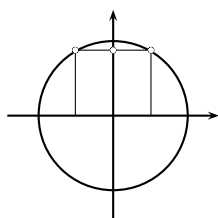
par rapport à l'axe des abscisses



$$\cos(-\theta) = \cos(\theta)$$

$$\sin(-\theta) = -\sin(\theta)$$

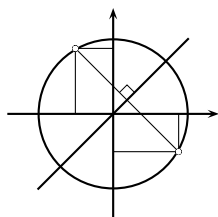
par rapport à l'axe des ordonnées



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

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

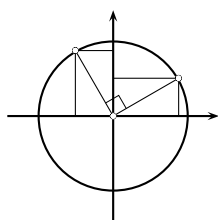
par rapport à la première bissectrice



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

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

rotation de $\frac{\pi}{2}$



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

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