

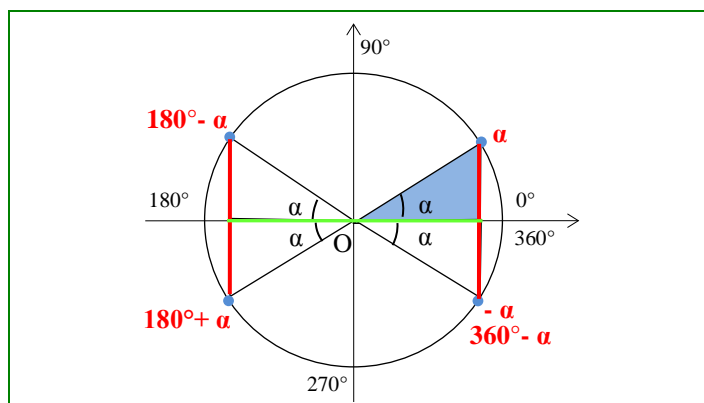
# Angoli associati

angoli supplementari	
secondo quadrante	
$\sin(180^\circ - \alpha) = \sin(\alpha)$	$\sin(\pi - \alpha) = \sin(\alpha)$
$\cos(180^\circ - \alpha) = -\cos(\alpha)$	$\cos(\pi - \alpha) = -\cos(\alpha)$
$\tan(180^\circ - \alpha) = -\tan(\alpha)$	$\tan(\pi - \alpha) = -\tan(\alpha)$
$\cot(180^\circ - \alpha) = -\cot(\alpha)$	$\cot(\pi - \alpha) = -\cot(\alpha)$

angoli che differiscono di un angolo piatto	
terzo quadrante	
$\sin(180^\circ + \alpha) = -\sin(\alpha)$	$\sin(\pi + \alpha) = -\sin(\alpha)$
$\cos(180^\circ + \alpha) = -\cos(\alpha)$	$\cos(\pi + \alpha) = -\cos(\alpha)$
$\tan(180^\circ + \alpha) = \tan(\alpha)$	$\tan(\pi + \alpha) = \tan(\alpha)$
$\cot(180^\circ + \alpha) = \cot(\alpha)$	$\cot(\pi + \alpha) = \cot(\alpha)$

angoli esplementari	
quarto quadrante	
$\sin(360^\circ - \alpha) = -\sin(\alpha)$	$\sin(2\pi - \alpha) = -\sin(\alpha)$
$\cos(360^\circ - \alpha) = \cos(\alpha)$	$\cos(2\pi - \alpha) = \cos(\alpha)$
$\tan(360^\circ - \alpha) = -\tan(\alpha)$	$\tan(2\pi - \alpha) = -\tan(\alpha)$
$\cot(360^\circ - \alpha) = -\cot(\alpha)$	$\cot(2\pi - \alpha) = -\cot(\alpha)$

angoli opposti	
quarto quadrante	
$\sin(-\alpha) = -\sin(\alpha)$	$\sin(-\alpha) = -\sin(\alpha)$
$\cos(-\alpha) = \cos(\alpha)$	$\cos(-\alpha) = \cos(\alpha)$
$\tan(-\alpha) = -\tan(\alpha)$	$\tan(-\alpha) = -\tan(\alpha)$
$\cot(-\alpha) = -\cot(\alpha)$	$\cot(-\alpha) = -\cot(\alpha)$



angoli complementari	
primo quadrante	
$\sin(90^\circ - \alpha) = \cos(\alpha)$	$\sin\left(\frac{\pi}{2} - \alpha\right) = \cos(\alpha)$
$\cos(90^\circ - \alpha) = \sin(\alpha)$	$\cos\left(\frac{\pi}{2} - \alpha\right) = \sin(\alpha)$
$\tan(90^\circ - \alpha) = \cot(\alpha)$	$\tan\left(\frac{\pi}{2} - \alpha\right) = \cot(\alpha)$
$\cot(90^\circ - \alpha) = \tan(\alpha)$	$\cot\left(\frac{\pi}{2} - \alpha\right) = \tan(\alpha)$

angoli che differiscono di un angolo retto	
secondo quadrante	
$\sin(90^\circ + \alpha) = \cos(\alpha)$	$\sin\left(\frac{\pi}{2} + \alpha\right) = \cos(\alpha)$
$\cos(90^\circ + \alpha) = -\sin(\alpha)$	$\cos\left(\frac{\pi}{2} + \alpha\right) = -\sin(\alpha)$
$\tan(90^\circ + \alpha) = -\cot(\alpha)$	$\tan\left(\frac{\pi}{2} + \alpha\right) = -\cot(\alpha)$
$\cot(90^\circ + \alpha) = -\tan(\alpha)$	$\cot\left(\frac{\pi}{2} + \alpha\right) = -\tan(\alpha)$

angoli la cui somma è 270°	
terzo quadrante	
$\sin(270^\circ - \alpha) = -\cos(\alpha)$	$\sin\left(\frac{3}{2}\pi - \alpha\right) = -\cos(\alpha)$
$\cos(270^\circ - \alpha) = -\sin(\alpha)$	$\cos\left(\frac{3}{2}\pi - \alpha\right) = -\sin(\alpha)$
$\tan(270^\circ - \alpha) = \cot(\alpha)$	$\tan\left(\frac{3}{2}\pi - \alpha\right) = \cot(\alpha)$
$\cot(270^\circ - \alpha) = \tan(\alpha)$	$\cot\left(\frac{3}{2}\pi - \alpha\right) = \tan(\alpha)$

angoli che differiscono di 270°	
quarto quadrante	
$\sin(270^\circ + \alpha) = -\cos(\alpha)$	$\sin\left(\frac{3}{2}\pi + \alpha\right) = -\cos(\alpha)$
$\cos(270^\circ + \alpha) = \sin(\alpha)$	$\cos\left(\frac{3}{2}\pi + \alpha\right) = \sin(\alpha)$
$\tan(270^\circ + \alpha) = -\cot(\alpha)$	$\tan\left(\frac{3}{2}\pi + \alpha\right) = -\cot(\alpha)$
$\cot(270^\circ + \alpha) = -\tan(\alpha)$	$\cot\left(\frac{3}{2}\pi + \alpha\right) = -\tan(\alpha)$

