



















<i>Function</i>	<i>Domain</i>	<i>Range</i>	Does it have an inverse function?
SOHCAHTOA $\cos( )$	$\left(0, \frac{\pi}{2}\right)$	$(0,1)$	yes
SOHCAHTOA $\sin( )$	$\left(0, \frac{\pi}{2}\right)$	$(0,1)$	yes
SOHCAHTOA $\tan( )$	$\left(0, \frac{\pi}{2}\right)$	$(0, \infty)$	yes
<hr style="border-top: 1px dashed black;"/>			
$\cos( )$	$\mathbb{R}$	$[-1,1]$	no
$\sin( )$	$\mathbb{R}$	$[-1,1]$	no
$\tan( )$	$\mathbb{R}$ except odd multiples of $\frac{\pi}{2}$	$\mathbb{R}$	no
<hr style="border-top: 1px dashed black;"/>			
$\text{Cos}( )$	$[0, \pi]$	$[-1,1]$	yes
$\text{Cos}^{-1}( ) = \arccos( )$	$[-1,1]$	$[0, \pi]$	yes
$\text{Sin}( )$	$\left[-\frac{\pi}{2}, \frac{\pi}{2}\right]$	$[-1,1]$	yes
$\text{Sin}^{-1}( ) = \arcsin( )$	$[-1,1]$	$\left[-\frac{\pi}{2}, \frac{\pi}{2}\right]$	yes
$\text{Tan}( )$	$\left(-\frac{\pi}{2}, \frac{\pi}{2}\right)$	$\mathbb{R}$	yes
$\text{Tan}^{-1}( ) = \arctan( )$	$\mathbb{R}$	$\left(-\frac{\pi}{2}, \frac{\pi}{2}\right)$	yes