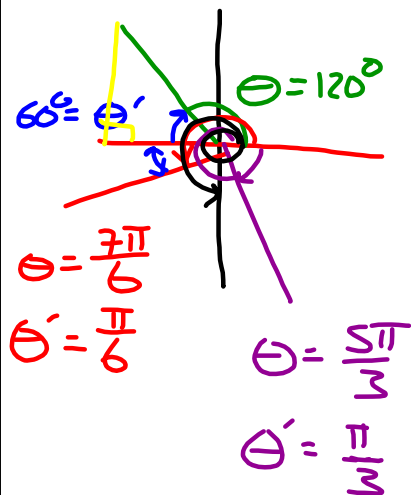


Deg.	0	30°	45°	60°	90°	180°
Rad.	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\pi$
sin θ	0	$\frac{\sqrt{1}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	0
cos θ	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{1}}{2}$	0	-1
tan θ	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	∞	0

## Section 7.5 Reference Angles



Reference angle is the angle <sup>radius</sup> from the hypotenuse of the original angle to the x-axis.

$$\theta = 630^\circ$$

$$\theta' = 270^\circ$$

$$\sin 120^\circ = \pm \sin 60^\circ$$


$$\cos 120^\circ = \pm \cos 60^\circ$$

$$\tan 120^\circ = \pm \tan 60^\circ$$

+   +	-   +	-   +	S Sin	A All
-   -	-   +	+   -	tan	cos
sin = y (csc too)	cos = x (sec too)	tan = y/x (cot too)	T	C


all students take  
Calculus

$\sin 240^\circ = -\sin 60^\circ = -\frac{\sqrt{3}}{2}$




#

$\cos \frac{5\pi}{6} = -\cos \frac{\pi}{6} = -\frac{\sqrt{3}}{2}$

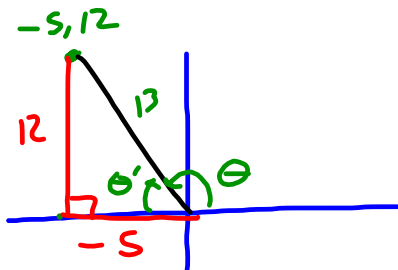


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$\tan 225^\circ = +\tan 45^\circ = 1$



#



$-5, 12$

$(-5)^2 + (12)^2 = c^2 = 169$

$25 + 144 = 169$

$c = 13$

$\sin \theta = \frac{12}{13}$

$\cos \theta = \frac{-5}{13}$

$\tan \theta = \frac{12}{-5}$