

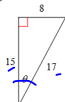
**Starter 6.1**

**Simplify each.**  $\sqrt{\frac{8}{14}} = 2\sqrt{2}$       2)  $\sqrt{80} = 4\sqrt{5}$

1)  $\sqrt{8}$       2)  $\sqrt{80}$


**Find the value of the trig function indicated.**

1)  $\cos \theta$



$\cos \theta = \frac{15}{17}$

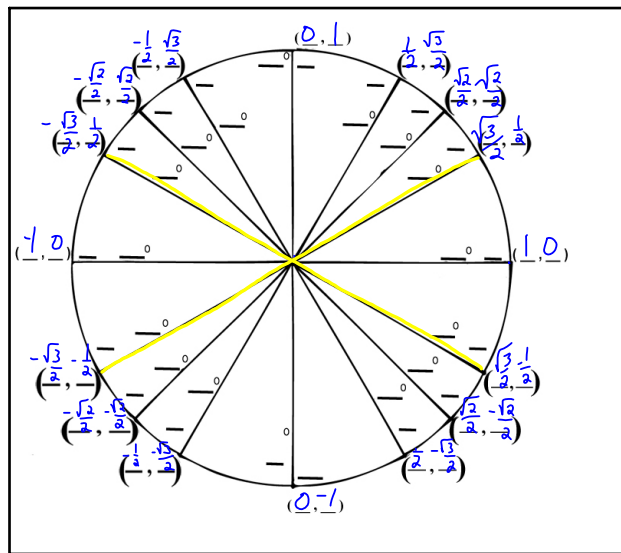
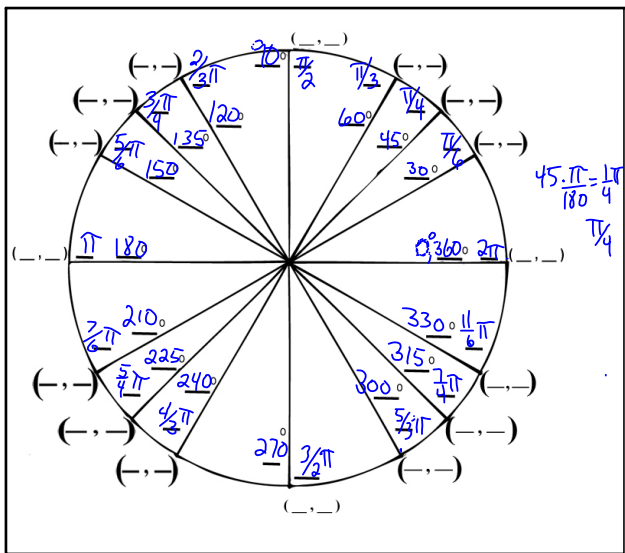
2)  $\tan \theta$



$\tan \theta = \frac{5}{10} = \frac{1}{2}$

4  
9  
16  
25  
36  
49

Unit 6.1 unit Circle



$\cos \theta = x$      $\sin \theta = y$      $\tan \theta = \frac{y}{x}$

$\cos 30^\circ = \frac{\sqrt{3}}{2}$      $\sin \frac{3\pi}{4} = \frac{\sqrt{2}}{2}$      $\tan \frac{2}{3}\pi = \frac{\frac{\sqrt{3}}{2}}{-\frac{1}{2}}$

$\frac{\sqrt{3}}{2} \cdot -\frac{2}{1} = -\sqrt{3}$

Degree	Radian	Sine	Cosine	Tangent
$60^\circ$	$\frac{\pi}{3}$	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$\sqrt{3}$

$\frac{\sqrt{3}}{2} \div \frac{1}{2} = \sqrt{3}$

$\frac{\sqrt{3}}{2} \cdot \frac{2}{1} = \sqrt{3}$

Degree	Radian	Sine	cosine	Tangent
$225^\circ$	$\frac{5}{4}\pi$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{2}}{2}$	1
$240^\circ$	$\frac{4}{3}\pi$	$-\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$\sqrt{3}$
$330^\circ$	$\frac{11}{6}\pi$	$-\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{3}}{3}$

Be careful

$$-\frac{1}{2} \div \frac{\sqrt{3}}{2} = \frac{-1}{\sqrt{3}}$$

$$-\frac{1}{2} \cdot \frac{2}{\sqrt{3}} = \frac{-1}{\sqrt{3}}$$

Fix it:  $-\frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{-\sqrt{3}}{3}$

Degree	Radian	Sine	cosine	Tangent
$90^\circ$	$\frac{\pi}{2}$	1	0	$\frac{1}{0}$ <del>No solution</del>