

Welcome to College Trigonometry!

My name is Harry S. (for 'Steve') Mills.

ZOOM crashed this first morning of classes...

Things to check out:

Course Shell on <https://online.aims.edu>

Syllabus

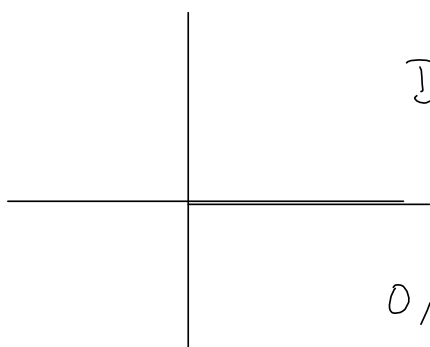
Schedule

WebAssign ([webassign.net](http://webassign.net))

*hmills1@online.aims.edu*

Course Key for WebAssign:

**aims 9259 1636**

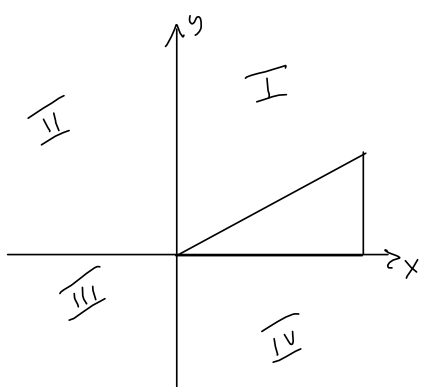


Don't  
memorize  
12-pt unit circle.  
0, 30, 60, 45, 90

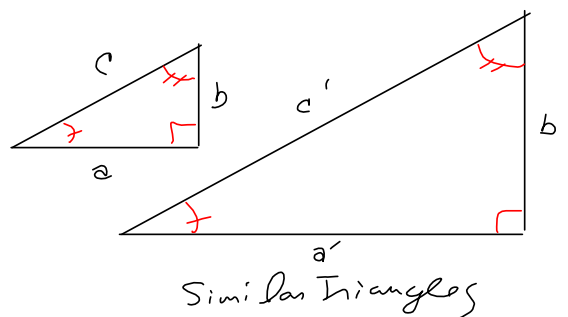
Links to come:

Notes - This notebook will be uploaded to [harryzaims.com](http://harryzaims.com)

Old Tests and Solutions - Practice!



Ray emanating from  
the origin

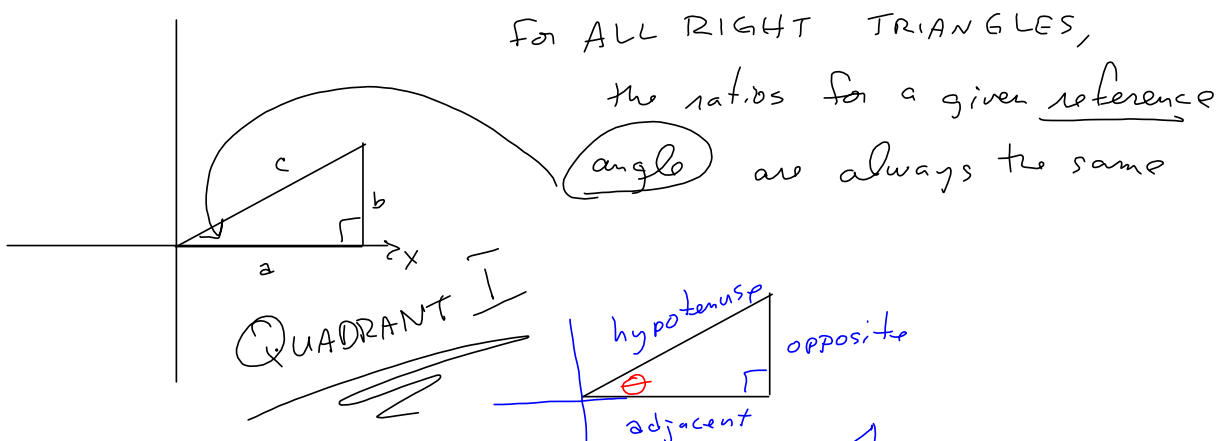


All same angles.  
Ratios of sides to  
each other is the same

$$\frac{a}{c} = \frac{a'}{c'}$$

$$\frac{b'}{a'} = \frac{b}{a}$$



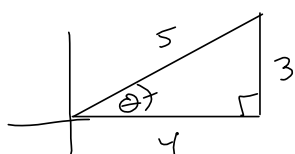


Sine  $\rightarrow \sin \theta = \frac{\text{opp}}{\text{hyp}} = \frac{b}{c}$

cosine  $\rightarrow \cos \theta = \frac{\text{adj}}{\text{hyp}} = \frac{a}{c}$

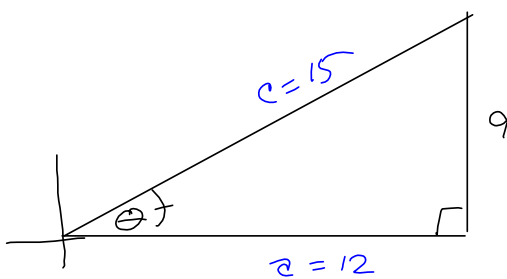
tangent  $\rightarrow \tan \theta = \frac{\text{opp}}{\text{adj}}$

sohcahtoa



$$\sin \theta = \frac{3}{5}$$

same ref angle.

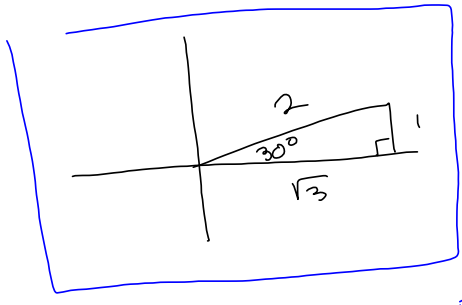


$$\sin \theta = \frac{9}{c} = \frac{3}{5}$$

$$45 = 3c$$

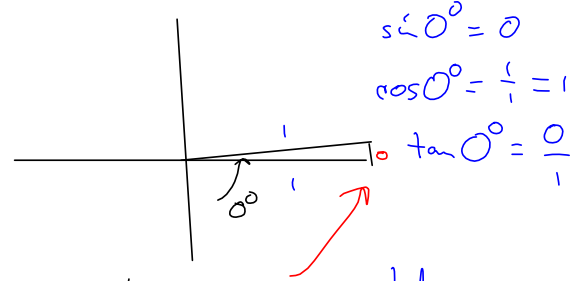
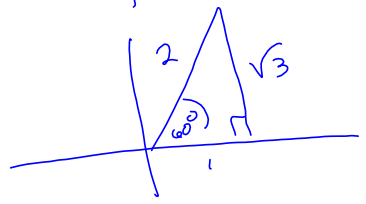
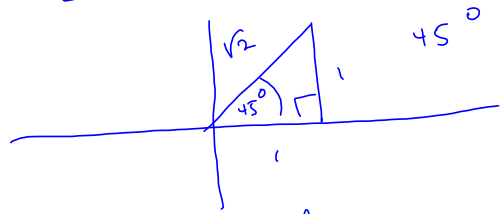
$$15 = \frac{45}{3} = c$$

Special:

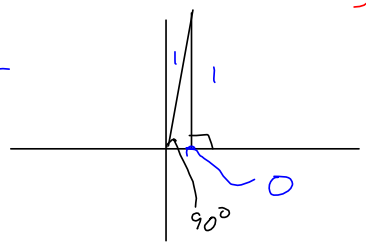


$$\begin{aligned} \sin 30^\circ &= \frac{1}{2} \\ \cos 30^\circ &= \frac{\sqrt{3}}{2} \\ \tan 30^\circ &= \frac{1}{\sqrt{3}} \end{aligned}$$

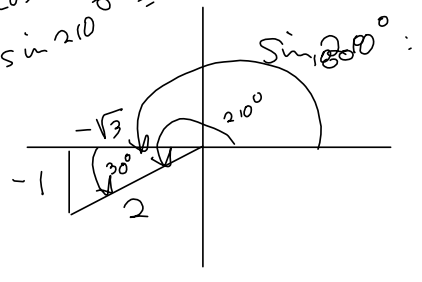
$$\begin{aligned} \csc 30^\circ &= \frac{2}{1} \\ \sec 30^\circ &= \frac{2}{\sqrt{3}} \\ \cot 30^\circ &= \frac{\sqrt{3}}{1} \end{aligned}$$



$$\begin{aligned} \sin 0^\circ &= 0 \\ \cos 0^\circ &= \frac{1}{1} = 1 \\ \tan 0^\circ &= \frac{0}{1} \end{aligned}$$



$$\begin{aligned} \frac{1}{\sqrt{3}} &= \tan 210^\circ \\ \cos 210^\circ &= -\frac{\sqrt{3}}{2} \\ \sin 210^\circ &= -\frac{1}{2} \end{aligned}$$



Hypotenuse is ALWAYS positive. Determine signs of opposite (y-direction) and adjacent (x-direction) from the picture

Get on WebAssign.net

Register on WebAssign and get rolling on Section 1.1.

Please skip 1.2 until we've gotten through 1.3, 1.4

Check back for my revised Syllabus (Some screwy dates)