Lesson: Evaluating Trigonometric Functions

Sign

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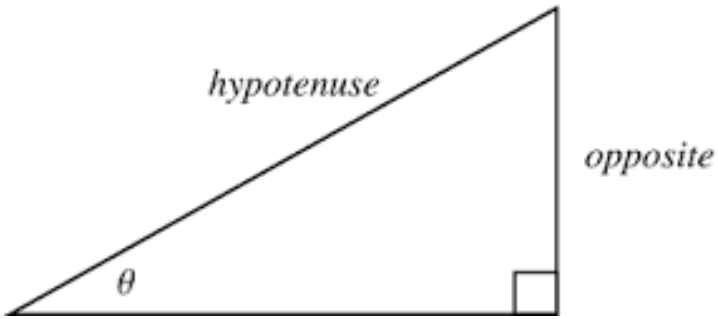


Sine

By the end of this lesson, I will be able to answer the following questions…

How do I Use the Unit Circle to Evaluate the Six Trigonometric Functions?

If you can't do this, you are *completely* screwed.

I'm not kidding.

Vocabulary

1. Reference Angle: The angle that is made with the x-axis and the terminal side of angle.

2. $\text{Sine} = \dfrac{\text{opposite}}{\text{hypotenuse}}$ $\text{Cosecant} = \dfrac{\text{hypotenuse}}{\text{opposite}}$

3. $\text{Cosine} = \dfrac{\text{adjacent}}{\text{hypotenuse}}$ $\text{Secant} = \dfrac{\text{hypotenuse}}{\text{adjacent}}$

4. $\text{Tangent} = \dfrac{\text{opposite}}{\text{adjacent}}$ $\text{Cotangent} = \dfrac{\text{adjacent}}{\text{opposite}}$

5. SOH-CAH-TOA

Prerequisite Skills with Practice

$\sin(30^0)=$

$\tan(136^o)=$

$\cos\left(\frac{3\pi}{4}\right)=$

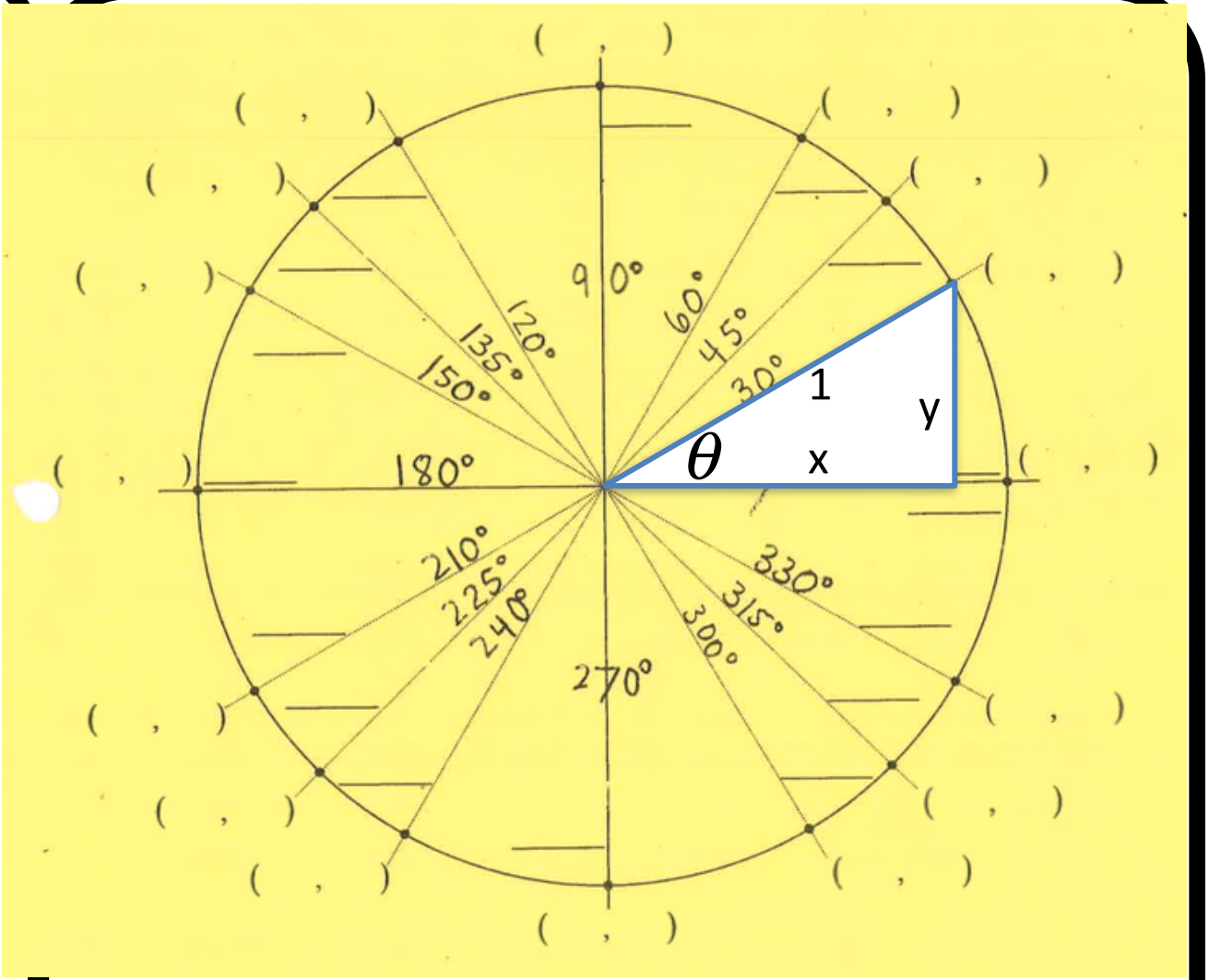
$\cot(\pi)=$

$\sec\left(55^o\right)=$

$\csc(0^o)=$

Coordinates on the Unit Circle regarding X and Y Values

Sine =
Cosine =
Tangent =
Cosecant =
Secant =
Cotangent =



ENTER Special Right Triangles

Sine =

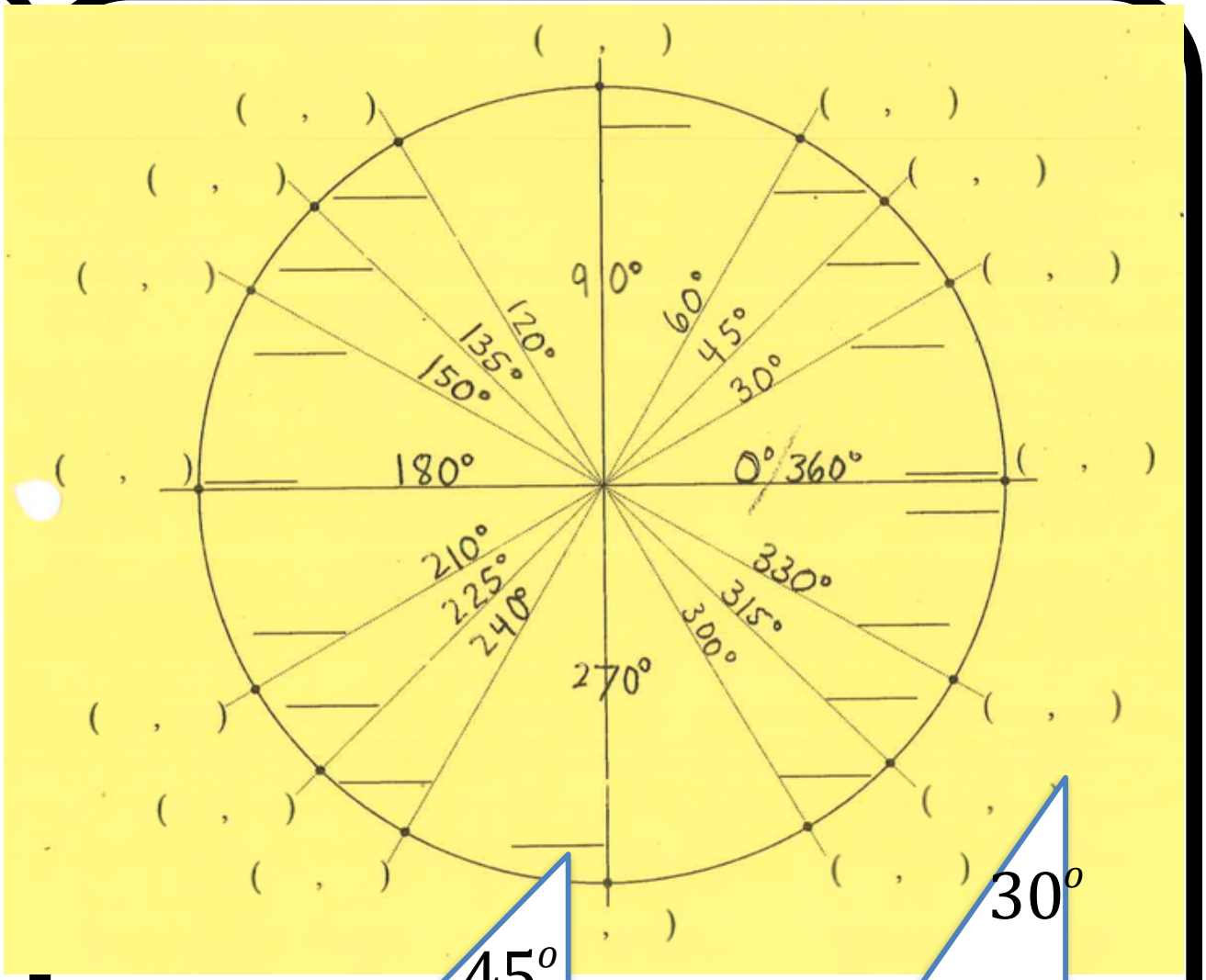
Cosine =

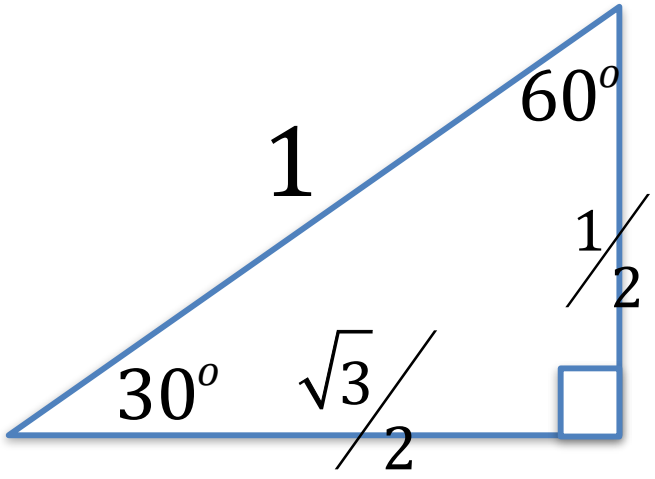
Tangent =

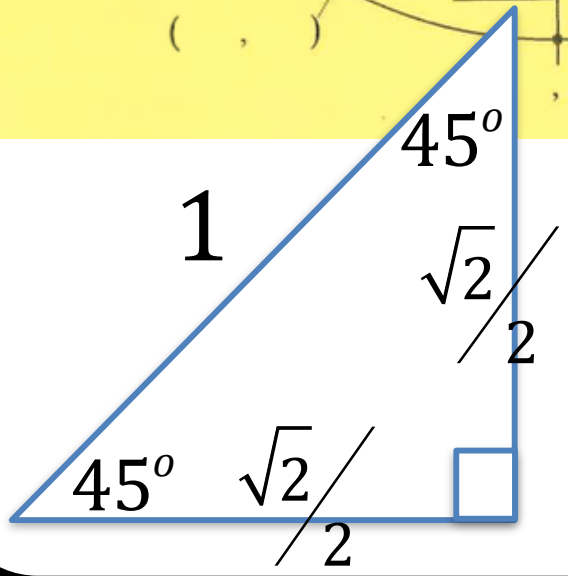
Cosecant =

Secant =

Tangent =







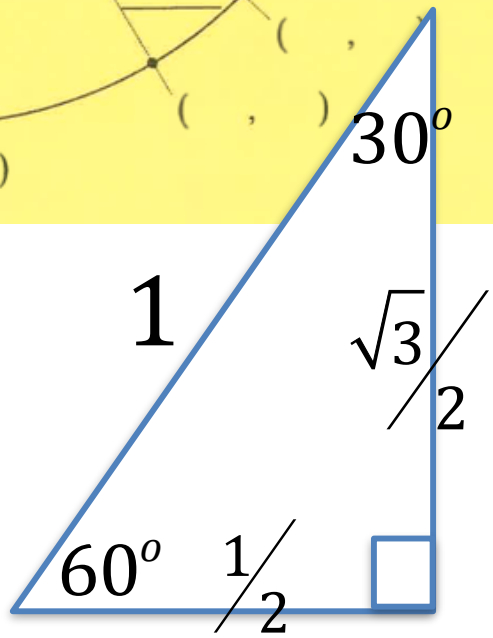
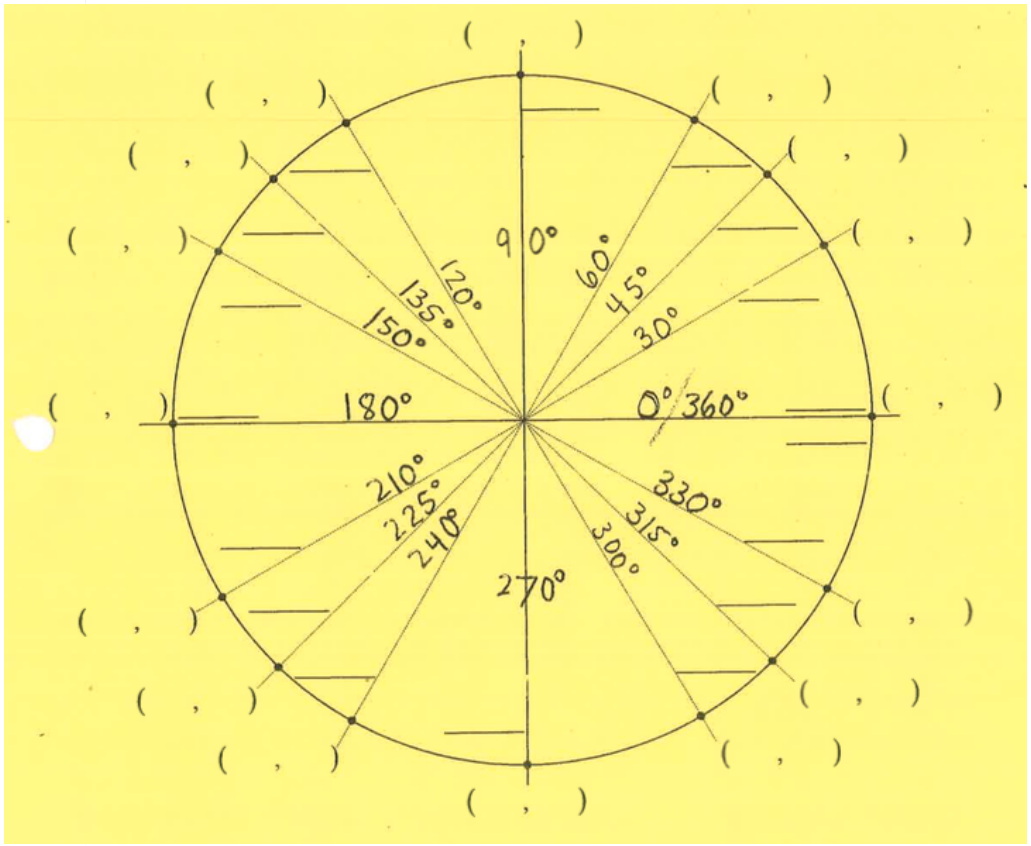


Table of Trigonometric Values

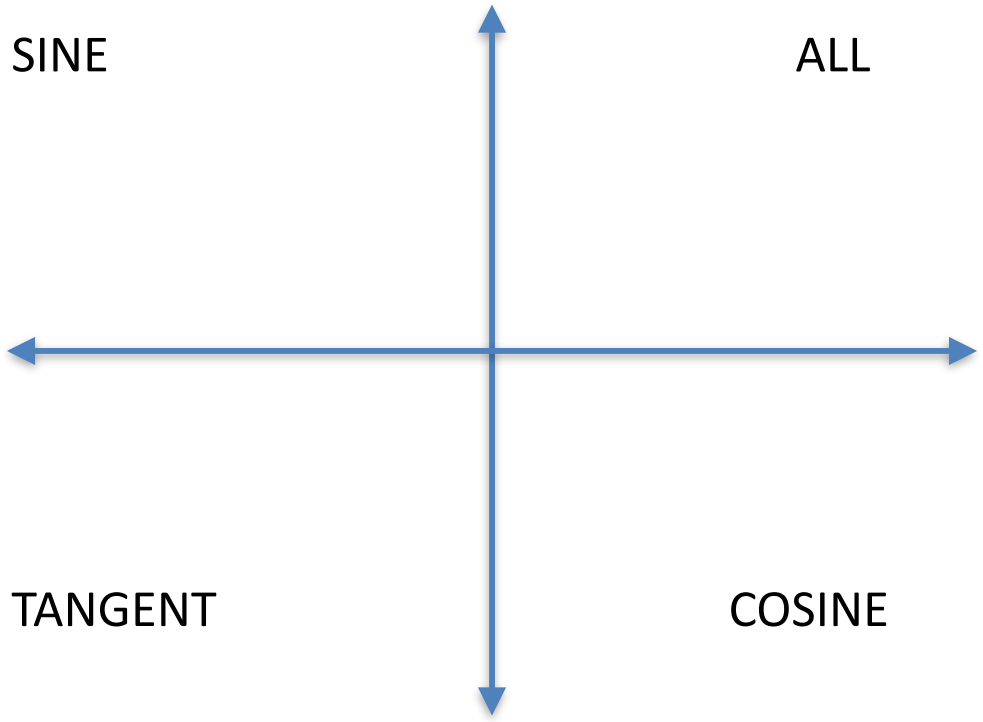
θ (Deg)	θ (Rad)	Ref Angle	$\sin\theta$	$\cos\theta$	$\tan\theta$	$\csc\theta$	$\sec\theta$	$\cot\theta$
0°								
30°								
45°								
60°								
90°								
120°								
135°								
150°								
180°								
210°								
225°								
240°								
270°								
300°								
315°								
330°								
360°								



The Trig Chart and REFERENCE ANGLES.

Using the TRIG CHART to evaluate trigonometric ratios strategically

θ (Deg)	θ (Rad)	Ref Angle	$\sin\theta$	$\cos\theta$	$\tan\theta$
0°					
30°					
45°					
60°					
90°					



THE END

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