





Six trig identities

Reciprocal Identities		
$\sin\theta = \frac{1}{\csc\theta}$	$\cos\theta = \frac{1}{\sec\theta}$	$\tan\theta = \frac{1}{\cot\theta}$
$\csc\theta = \frac{1}{\sin\theta}$	$\sec \theta = \frac{1}{\cos \theta}$	$\cot \theta = \frac{1}{\tan \theta}$

<u>Homework</u>

- *Finish the purple WS (pre-req ws). *Page 856 #4, 6, 9, 13, 17-20, 32, 33, 36
- * Page 863 #6-9
- The right angle from which to approach any problem is the "Try Angle."

GRID Game

Stations

-Find a partner and complete at least 15 problems on a separate sheet of paper.

-Turn in at the end of the 10 minutes.

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http://themetapicture.com/this-should-be-the-first-thing-shown-in-all-trigonometry-classes/





^ΛO^{ΛO}Draw an angle with the given measure in standard position.







What are coterminal angles?

-Two angles with the same terminal side. An angle coterminal with a given angle can be found by adding or subtracting multiples of 360 degrees. 40 90° 500° 120 60 135 (-,+) (+,+) 45 **'15**0° Π Ι **3**0' 180° 0 **21**0° 360 III IV **33**0° (- , -) (+,-) 225315 300 **27**0°



Find coterminal angles.





Radian Measured in * Angle can also be measured in radains.

http://www.businessinsider.com/7-gifs-trigonometry-sine-cosine-2013-5

So, a **Radian** "cuts out" a length of a circle's circumference equal to the radius.

Number What is a Radian?

2

? = 3.14159... = **T**

3

?

How many Degrees in a Radian?

180°

A half rotation = 180° = π Radians 1 Radian = $180^\circ/\pi$ = 57.2958...°

1 Radian

1 Radian

Length = r

C,



Radian Measure

If I want to find the radian measure of 180 degrees, what is the ratio?









* Draw and angle with the given measure in standard position.



Sketching Angle Degrees WS



"My Story: Winning by Losing" By Bobby Bones

https://m.youtube.com/watch?v=gNSF4vcyPlY



*What is cos 30°?

*What is the tan 30°?

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Quotient Identities		
$\tan\theta = \frac{\sin\theta}{\cos\theta}$	$\cot \theta = \frac{\cos \theta}{\sin \theta}$	

*What is csc 30°?

*What is the cot 30°?

*What is sec 30°?





*Evaluate all six trig functions for $\frac{\pi}{3}$.

Quick Check

- * List one thing you learned today.
- * List at least one question you have that you would like answered.

<u>Homework</u>

*Page 863 #10-31 dd, 43-46, 48-50 * Literacy paragraph *Sketching angle ws * Look over unit circle

The right angle from which to approach any problem is the "Try Angle."