Name: _____ Period: _____

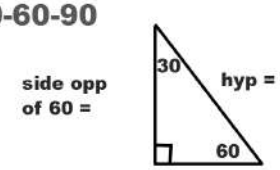
Unit 3: Intro to the Unit Circle (degrees)

Class notes and practice

Essential Question: How can we use our knowledge of special right triangles to derive the Unit Circle?

NOTES: RECALL: Special Right Triangles

30-60-90

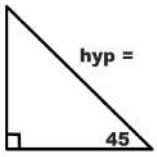


side opp of 60 =

hyp =

side opposite of 30 =

45-45-90



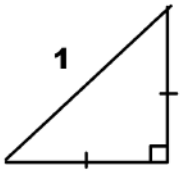
both sides =

hyp =

both sides =

NOTES: Unit 3 - Deriving the Unit Circle

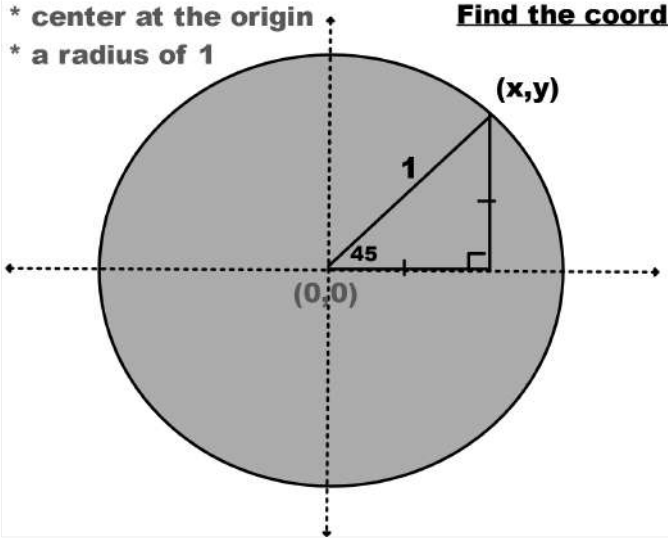
Find the lengths of the missing sides.



A Unit Circle has:

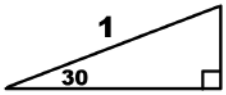
* center at the origin
* a radius of 1

Find the coordinate

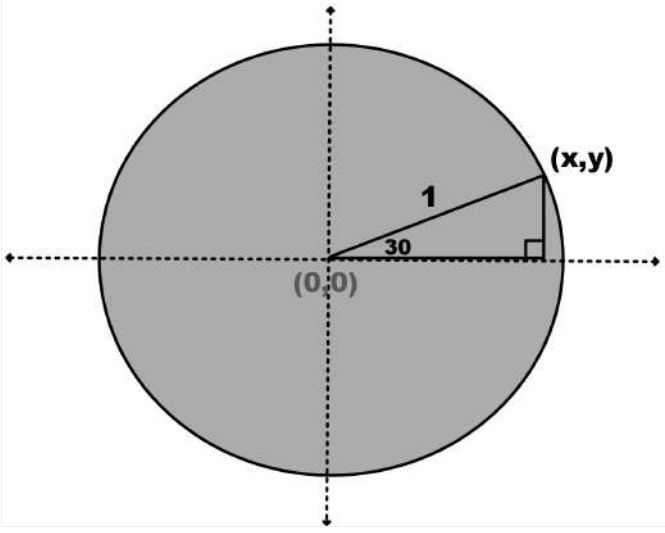


NOTES: Unit 3 - Deriving the Unit Circle

Find the lengths of the missing sides.



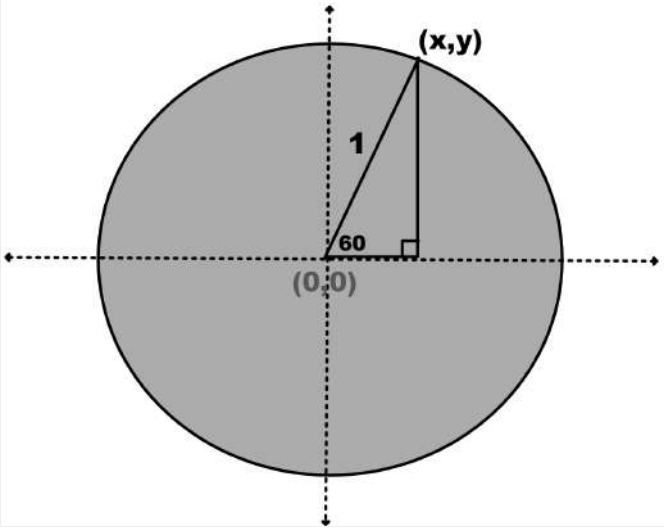
Find the coordinate



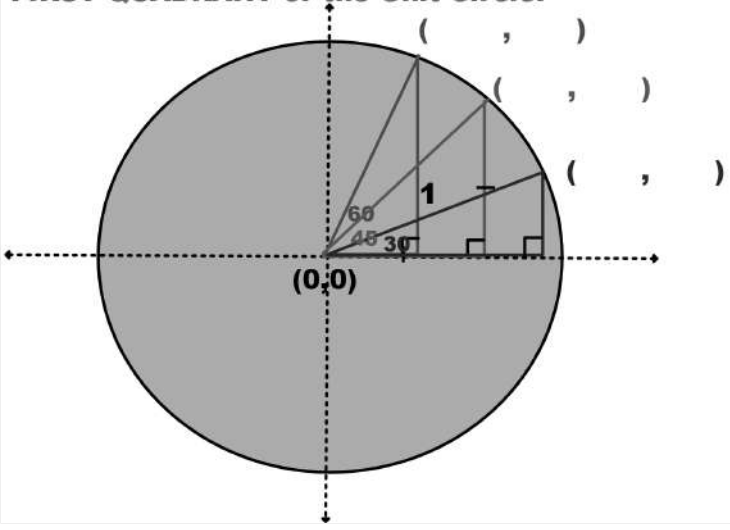
NOTES: Unit 3 - Deriving the Unit Circle

Find the lengths of the missing sides.

Find the coordinate



Now put it all together...the coordinates of the FIRST QUADRANT of the Unit Circle:



TO DO:

1.) Reflect these coordinates (and triangles) across the y-axis to determine the 2nd Quadrant Coordinates
*****note: there will only be a sign change*****

2) Reflect the Q1 coordinates (and triangles) across the x-axis to determine the 4th Quadrant Coordinates

3.) Reflect either Q2 coordinates across the x-axis OR the Q4 coordinates across the y-axis to determine the 3rd Quadrant Coordinates

YOU SHOULD HAVE A COMPLETED UNIT CIRCLE TOMORROW when you enter class!