PreCalculus Trigonometry   Name_____
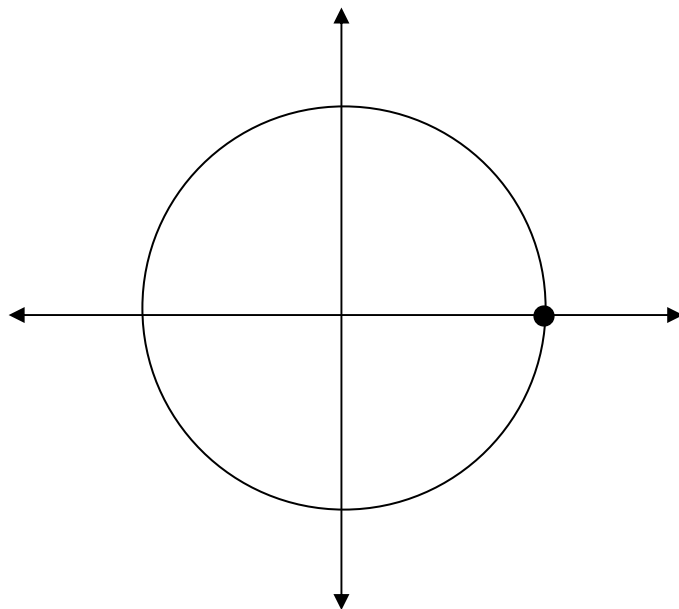
The Unit Circle

a) Equation for the unit circle:

b) Positive angles:

c) Negative angles:

d) Standard position:

An angle whose vertex is at the origin and the
initial side is the positive x-axis.

e)   Four points on the unit circle:

Term	Definition	Examples
Terminal point	Distance "t" from (1,0) along the unit circle in a counterclockwise direction when "t" is positive and clockwise when "t" is negative	
Coterminal angles	2 angles in standard position that share the same terminal point	

Determine whether these points are one the unit circle. Show your work.

1. $\left(\dfrac{\sqrt{3}}{3}, \dfrac{\sqrt{2}}{\sqrt{3}}\right)$

2. (-0.5, 0.5)

3. $\left(\dfrac{1}{2}, \dfrac{\sqrt{3}}{2}\right)$

Assume that point P is on the unit circle. Determine the coordinates of point P(x , y) from the given information.

4. The x-coordinate of P is 2/3 and the y-coordinate is positive.

5. The y-coordinate of P is –2/5 and P is in the IV quadrant.

Give two coterminal angles for each angle given.

6. 120°

7. −100°

8. 45°