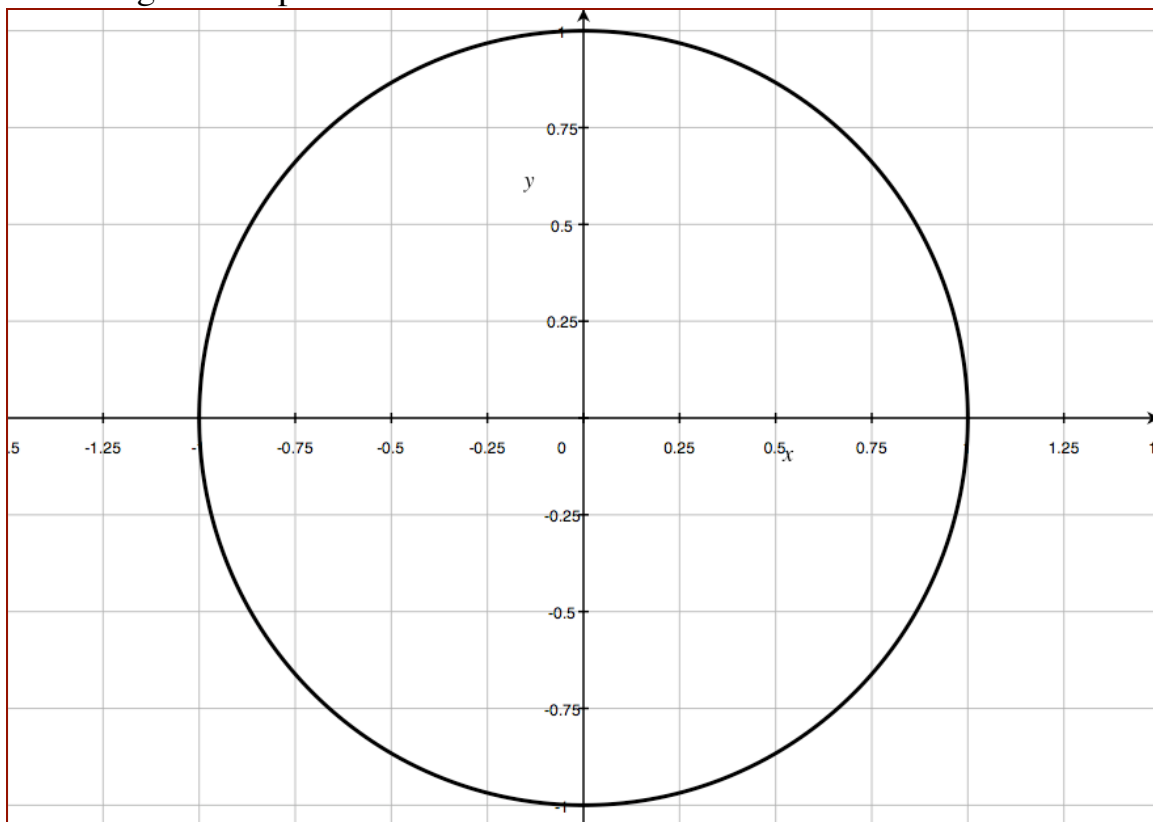


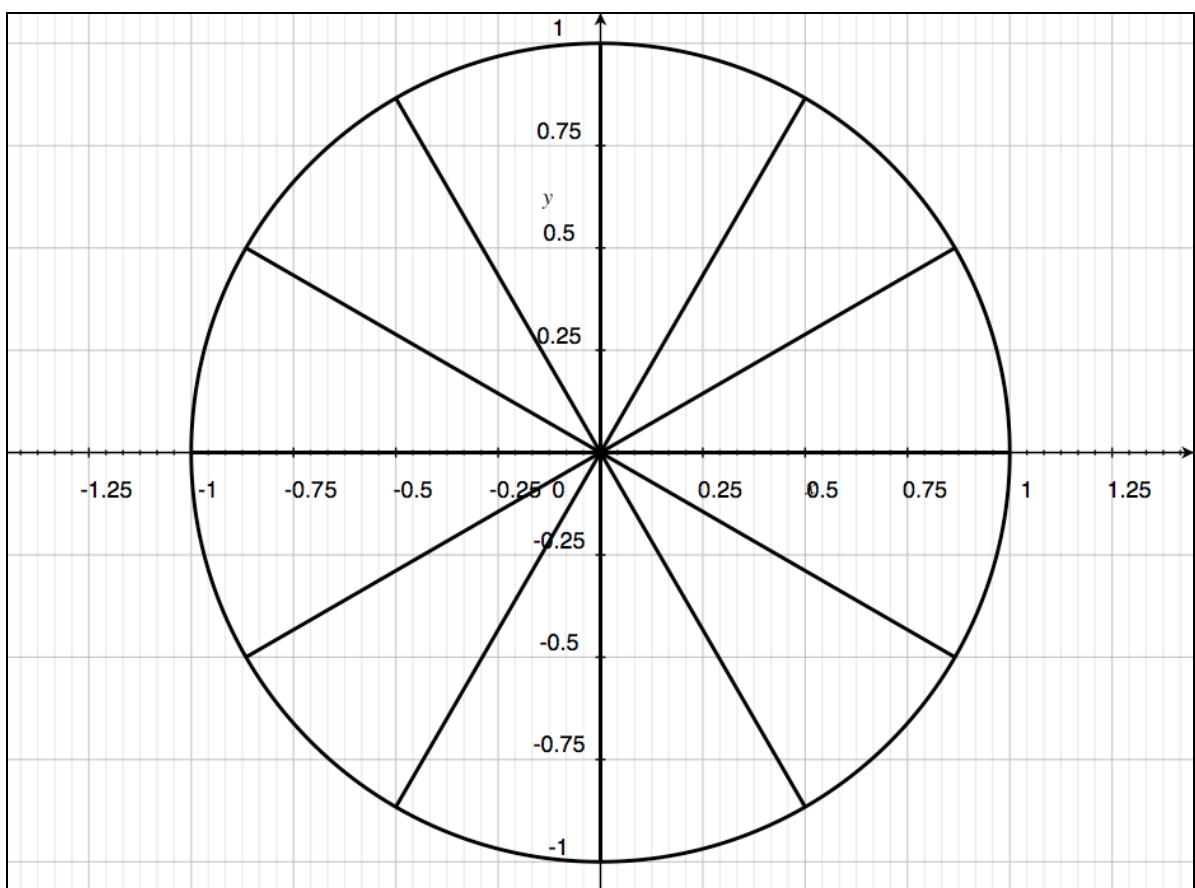
Precalc Warm Up – 11/22/10

Name: _____

Period: _____

- 1) Sketch the angle 240° in the unit circle and find the lengths of the sides of the triangle. Remember to consider whether the side lengths are negative or positive.





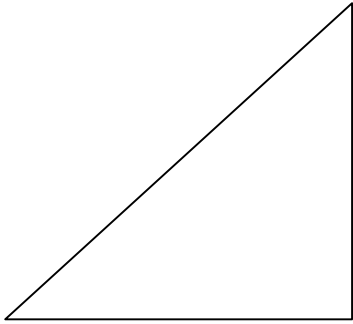
	30°	45°	60°
$\sin \theta =$	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$
$\cos \theta =$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$
$\tan \theta =$	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$

Precalc Unit Circle PRACTICE for Mastery

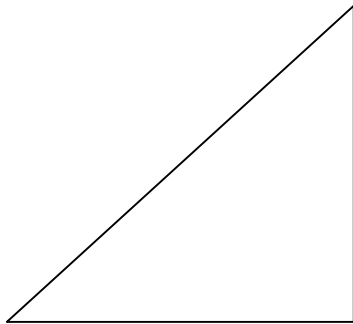
Name: _____ Date: _____ Period: _____

Objective	Questions	Proficient	Highly Proficient
		<u> </u> Correct	<u> </u> Correct
Students will be able to find the missing side length of a triangle given an angle and a side length	2	1	2
Students will be able to find the x,y coordinates of an angle in the unit circle	4	3	4
Students will be able to use the unit circle in order to graph sine and cosine	4	3	4
Students will be able to use the unit circle in order to analyze sine and cosine and their graphs	5	3	4

1) Find the length of the side labeled x .

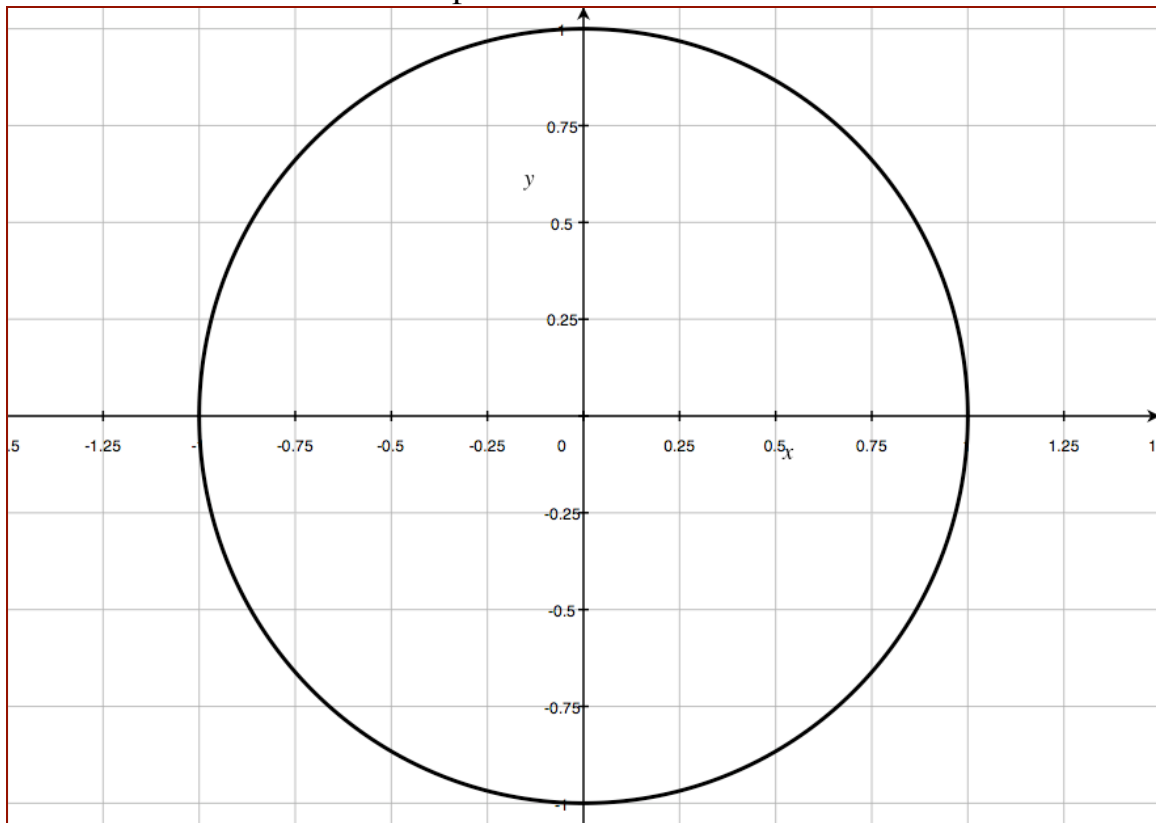


2) Find the length of the side labeled x .



3) Imagine that $\theta = 45^\circ$

a. Draw θ in standard position within the unit circle.

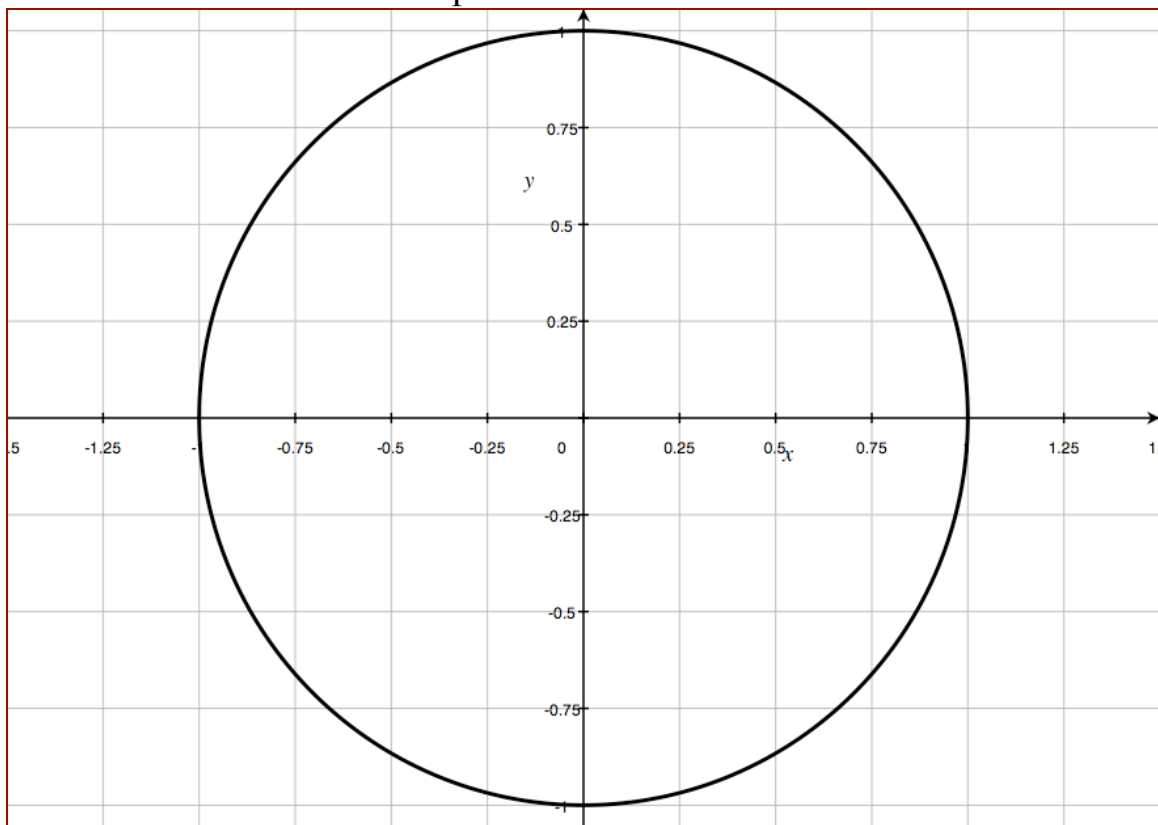


b. Complete the right triangle of which θ is a part within the unit circle.

c. Find the lengths of the sides of that right triangle.

4) Imagine that $\theta = 225^\circ$

a. Draw θ in standard position within the unit circle.



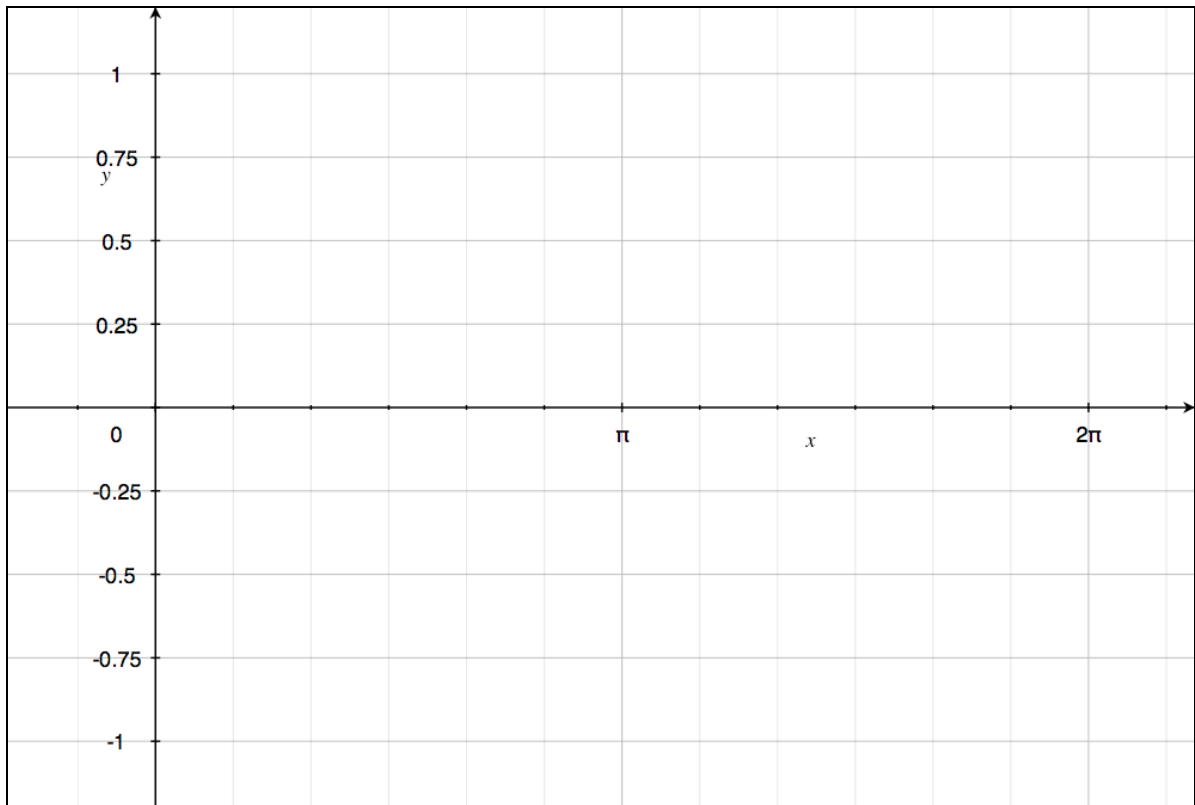
b. Complete the right triangle of which θ is a part within the unit circle.

c. Find the lengths of the sides of that right triangle.

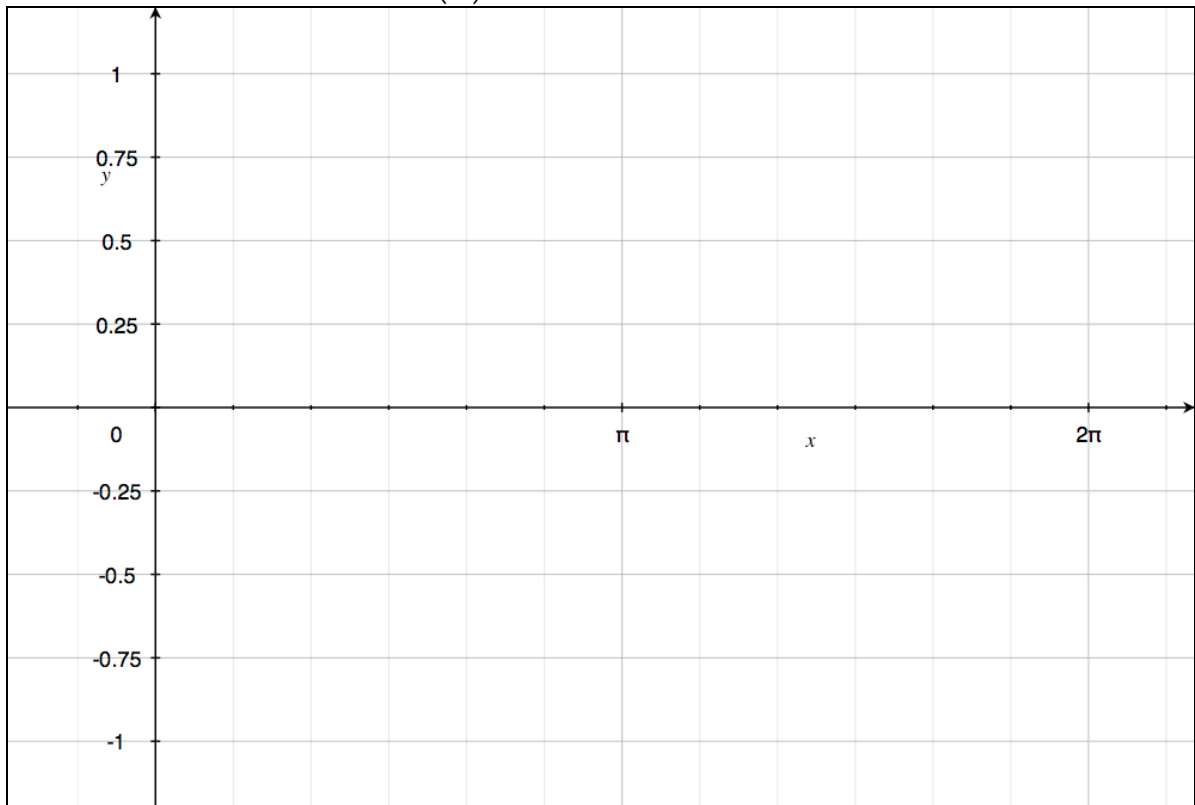
5) Do the sides of the triangles from problems 6) and 7) have the same sign (positive or negative)? Explain why the side lengths have the same or different sign.

6) What angle would produce a triangle with the same side lengths as in questions 6) and 7) but with negative signs?

7) Sketch the graph of $f(x) = \sin x$



8) Sketch the graph of $f(x) = \cos x$



9) Explain why $f(x) = \cos x$ is a periodic function.

10) Explain why the graph of cosine is different than the graph of sine.

- 11) The graph below represents a periodic function. Sketch the missing section to the right of the existing curve.

