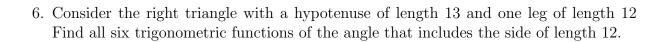**Kerry Ojakian's MTH 30 Class**
Class Assignment #4
Name:

Instructions: Work on your own or with a partner. For each exercise, you must neatly write your answer in the answer box (if there is one!). Show your work next to each exercise in the space provided. You must show work to get full credit!

1. **Answer:**

   (a) Convert $45°$ to radians.
   (b) Convert $0°$ to radians.

2. **Answer:**

   (a) Convert $5\pi/6$ radians to degrees.
   (b) Convert 2π radians to degrees.

3. **Answer:**

   Suppose there is a circle with radius 6 has a central angle of 180°. How long is the arc of the circle that corresponds to this central angle?

4. **Answer:**

   Suppose a circle of radius 4 has a central angle which subtends an arc of length 6π. Find the measure of the central angle.

5. **Answer:**

   In a circle, suppose a central angle of 60 degrees subtends an arc of length 2π. Find the *circumference* of the circle.

6. Consider the right triangle with a hypotenuse of length 13 and one leg of length 12
   Find all six trigonometric functions of the angle that includes the side of length 12.

7. Evaluate sin and cos at the following angles: $3\pi/2$, $5\pi/4$, $-\pi/3$.

8. Evaluate all six trigonometric functions at the following angles: $\pi/6$, $\pi/4$, $\pi/3$.