Answer the questions in the spaces provided. **Show all of your work and circle the answer you would like to have graded for each question.**

Name: _____

1. **Justify** whether the following statement is True or False: $\frac{23\pi}{6}$ radians $> 400°$.

2. Determine the angle θ between 0 and 2π that is coterminal to 70801π.

3. The London Eye is a huge Ferris wheel and the most popular paid tourist attraction in the United Kingdom. Riders board from a platform that is 2 meters above the ground, and at the highest point on the ride they are 137 meters above the ground. It completes one rotation every 30 minutes.
   What is the **linear speed** of the London Eye in meters per hour?

4. Imagine that you and a friend are at your favorite pizza place.

    a.) The crust on your friend's pizza has an arclength of $\frac{3\pi}{2}$ inches and the angle at the tip is $30°$. What is the diameter of the pizza that they ordered a slice of?

    b.) You order a personal pizza with a 10 inch diameter. There is one inch of crust around the entire outside of the pizza, and the rest is cheese. You want to make sure that you eat exactly 4π square inches of cheese. To what angle should you cut the tip of your pizza slice to eat?