Math 12   Name: _____
                                                       Date: _____

QUIZ 1: RADIANS, ARC LENGTH, AND THE UNIT CIRCLE

1. Convert 410° to radians exactly: _____

2. Convert 1.8 radians to degrees to 1 decimal place: _____

3. Find the length, to the nearest metre, of a sector of a circle of radius 6 cm and angle 230°.

                                                       _____

4. Find y if the point $\left(\dfrac{2}{3}, y\right)$ is on the unit circle.

                                                       $y = $ _____

5. If P(θ) is the point at the intersection of the terminal arm of angle θ and the unit circle, determine the exact coordinates of each of the following:

   (a) $P(\pi)$ _____   (b) $P\left(\dfrac{3\pi}{4}\right)$ _____

   (c) $P\left(\dfrac{5\pi}{6}\right)$ _____   (d) $P\left(\dfrac{-\pi}{3}\right)$ _____

6. For each angle, determine all the angles that are coterminal within each domain.

   (a) $65°, 0° \le \theta < 720°$ (b) $\dfrac{3\pi}{4}, -2\pi \le \theta < 2\pi$