

QUIZ Review Questions (T2, T3)

Find Quadrant and Convert to degrees

$$1. \theta = \frac{7\pi}{5} = \frac{7\pi}{5} \left(\frac{180^\circ}{\pi} \right) = 7 \cdot 36^\circ = \boxed{252^\circ \text{ QUADRANT III}}$$

$$2. \theta = -\frac{16\pi}{15} \left(\frac{180^\circ}{\pi} \right) = -16 \cdot 12^\circ = \boxed{-192^\circ \text{ QUADRANT II}}$$

Find reference angle and convert to radians

$$3. \theta = 140^\circ$$

$$4. \theta = -200^\circ$$

Find one positive and one negative angle co-terminal to the given angle.

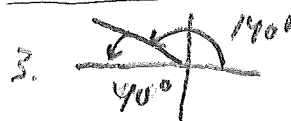
$$5. \theta = 148^\circ \quad \theta_1 = 148^\circ + 360^\circ = \boxed{508^\circ} \quad \theta_2 = 148^\circ - 360^\circ = \boxed{-212^\circ}$$

$$6. \theta = -\pi/3 \text{ in Radians. } \theta_1 = -\pi/3 + 2\pi = \boxed{5\pi/3} \quad \theta_2 = -\pi/3 - 2\pi = \boxed{-7\pi/3}$$

Find the arc length when the radius is 20 meters.

$$s = r\theta = 20m \left(\frac{4\pi}{3} \right) = \frac{80\pi}{3} m \approx \boxed{8.38m}$$

$$\theta = 170^\circ \left(\frac{\pi}{180^\circ} \right) = \frac{17\pi}{18} \quad s = 20m \left(\frac{17\pi}{18} \right) = \frac{170\pi}{9} m \approx \boxed{59.34m}$$



$$\theta_{\text{ref}} = 40^\circ = 40^\circ \left(\frac{\pi}{180^\circ} \right) = \boxed{\frac{2}{9}\pi}$$



$$\theta = -200^\circ \quad \theta_{\text{ref}} = 20^\circ = 20^\circ \left(\frac{\pi}{180^\circ} \right) = \boxed{\frac{\pi}{9}}$$