

Section 5.1

$$5. \quad \begin{array}{l} 90^\circ \\ -56^\circ 33' 15'' \end{array} = \begin{array}{l} 89^\circ 59' 60'' \\ -56^\circ 33' 15'' \end{array} \quad \begin{array}{l} 180^\circ \\ -56^\circ 33' 15'' \end{array} = \begin{array}{l} 179^\circ 59' 60'' \\ -56^\circ 33' 15'' \end{array}$$

$$\frac{}{33^\circ 26' 45''} = \frac{}{123^\circ 26' 45''}$$

$$12. \quad \frac{\pi}{2} - \frac{\pi}{6} = \frac{\pi}{3}$$

$$\pi - \frac{\pi}{6} = \frac{5\pi}{6}$$

$$16. \quad -872^\circ = 208^\circ - 3 \cdot 360^\circ$$

α is a quadrant III angle coterminal with an angle of measure 208° .

$$38. \quad 630^\circ = 630^\circ \left(\frac{\pi}{180^\circ} \right) = \frac{7\pi}{2}$$

$$48. \quad \frac{6\pi}{5} = \frac{6\pi}{5} \left(\frac{180^\circ}{\pi} \right) = 216^\circ$$

$$52. \quad 427^\circ = 427^\circ \left(\frac{\pi}{180^\circ} \right) \approx 7.45$$

$$56. \quad \theta = \frac{s}{r}$$

$$= \frac{4}{7} \approx 0.57$$

$$= 0.57 \left(\frac{180^\circ}{\pi} \right) \approx 32.74^\circ$$

$$60. \quad s = r\theta$$

$$= 3 \left(\frac{7\pi}{2} \right)$$

$$= 32.99 \text{ ft}$$

$$70. \quad \omega = \frac{\theta}{t}$$

$$= \frac{200(2\pi)}{60}$$

$$= \frac{20\pi}{3} \text{ radians/sec}$$

$$88. \quad A = \frac{1}{2}r^2\theta$$

$$= \frac{1}{2}(2.8)^2 \left(\frac{5\pi}{2} \right)$$

$$\approx 31 \text{ ft}^2$$