

14. $\theta = 60^\circ$ $r = 10 \text{ cm}$

$$\frac{60^\circ}{1} \cdot \frac{\pi}{180^\circ}$$

$$\frac{60\pi}{180}$$

$$\theta = \frac{\pi}{3}$$

$$S = r A$$

$$S = (10 \text{ cm}) \left(\frac{\pi}{3} \right)$$

$$= \frac{10\pi}{3} \text{ cm}$$

$$= 10.472 \text{ cm}$$

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

$$A = \frac{1}{2} (10 \text{ cm})^2 \left(\frac{\pi}{3} \right)$$

$$A = \frac{1}{2} (100) \text{ cm}^2 \left(\frac{\pi}{3} \right)$$

$$= 50 \text{ cm}^2 \left(\frac{\pi}{3} \right)$$

$$= \frac{50\pi}{3} \text{ cm}^2$$

$$= 52.36 \text{ cm}^2$$