

AFM
Unit 3 Quiz 1 Review

Name Key
Date: _____

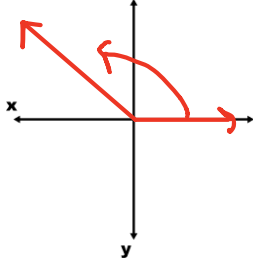
1. Convert 135° to radians

$$\frac{3\pi}{4}$$

2. Convert $-\frac{12\pi}{7}$ to degrees

$$-308.6^\circ$$

3. a. Draw 135° in standard position. b. What quadrant is the terminal side in?



II

c. What is the reference angle?

$$45^\circ$$

4. Find a coterminal angle for $-\frac{18\pi}{7}$ between 0 and 2π

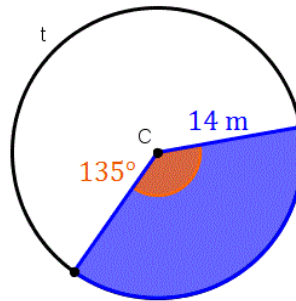
$$\frac{10\pi}{7}$$

5. Find a coterminal angle for -225° between 0 and 360°

$$135^\circ$$

6. Find the arc length and area of the shaded area below.

$$\frac{147\pi}{2} \text{ m}^2 \text{ or } 230.9 \text{ m}^2$$



7. A tire is spinning at 5 rpm. The tire has a radius of 40 inches.

a. Find the angular velocity of the tire.

$$10\pi \text{ or } 31.4 \text{ rad/min}$$

b. Find the linear velocity of the tire.

$$400\pi \text{ or } 1256.6 \text{ in/min}$$

8. If θ is an angle formed by $P(-3,5)$ a point on the terminal side of the angle, find the value of $\sec\theta$ and $\sin\theta$.

$$\sec\theta = -\frac{\sqrt{34}}{3}$$

$$\sin\theta = \frac{5\sqrt{34}}{34}$$