$\qquad$

1. Convert $135^{\circ}$ to radians
2. Convert $-\frac{12 \pi}{7}$ to degrees

3. Find a coterminal angle for $-\frac{18 \pi}{7}$ between 0 and $2 \pi$
4. Find a coterminal angle for $-225^{\circ}$ between 0 and $360^{\circ}$
5. Find the arc length and area of the shaded area below.

6. A tire is spinning at 5 rpm . The tire has a radius of 40 inches.
a. Find the angular velocity of the tire.
b. Find the linear velocity of the tire.
7. If $\theta$ is an angle formed by $\mathrm{P}(-3,5)$ a point on the terminal side of the angle, find the value of $\sec \theta$ and $\sin \theta$.
