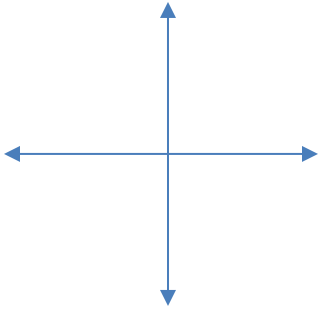
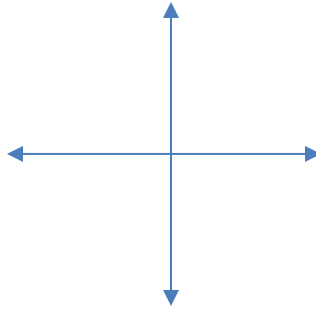


Sketch each angle in standard position.

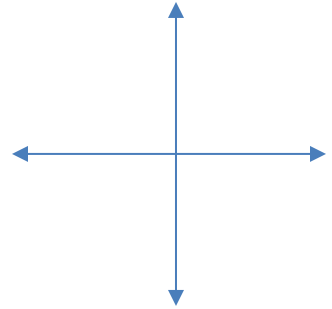
1. 425°



2. $-\frac{19\pi}{4}$



3. -520°



Conversions: Write the equivalent quantity in the form indicated.

4. Write in DMS form

$\theta = 420.3175^\circ$

5. Write as a degree in decimal form

$\theta = 27^\circ 39' 15''$

6. Convert to radians

$\theta = 125^\circ$

7. Convert to Degrees

$\theta = \frac{25\pi}{12}$

Problems.

8. Given a circle with radius 15 cm, find the length of the arc intercepted by a central angle of $\frac{7\pi}{4}$ radians.

9. Given a circle with diameter 10 inches, find the area of the sector created by a central angle of 140° .

10. A Ferris wheel rotates at a rate of 7 revolutions per minute. If the cars on the ride are 40 feet from the center, and calculate each of the following.

(a) The number of degrees rotated by a person during a 5 minute ride.

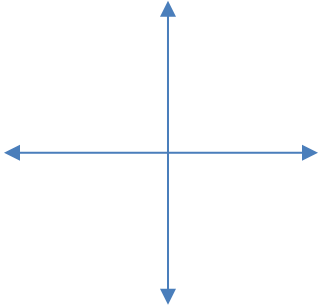
(b) The total distance traveled by a person during a 5 minute ride.

(c) The angular speed of the ride (in degrees per second)?

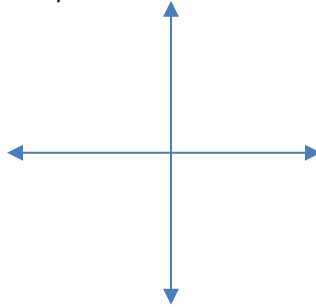
(d) The linear speed of the ride (in feet per second)?

Sketch each angle in standard position.

1. -1217°



2. $\frac{26\pi}{7}$



Conversions: Write the equivalent quantity in the form indicated.

3. Write in DMS form

$$\theta = 84.9823^\circ$$

4. Write as a degree in decimal form

$$\theta = 36^\circ 13' 41''$$

5. Convert to radians

$$\theta = 510^\circ$$

6. Convert to Degrees

$$\theta = \frac{127\pi}{15}$$

7. Given a circle with an area of $256\pi \text{ in}^2$, find the length of the arc intercepted by a central angle of 85° .

8. Given a circle with a circumference of 126 cm, find the area of the sector created by a central angle of $\frac{17\pi}{9}$.

9. The tilt-a-world rotates at rate of 175 revolutions every 5 minutes. If you stand on the edge of the ride which is 68 feet from the center; calculate each of the following.

(a) The angular speed of the ride (in degrees per second)?

(b) The linear speed of the ride (in feet per second)?