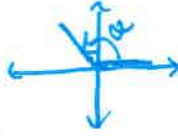


Section 4.2—Radians and Degrees

Important Ideas:

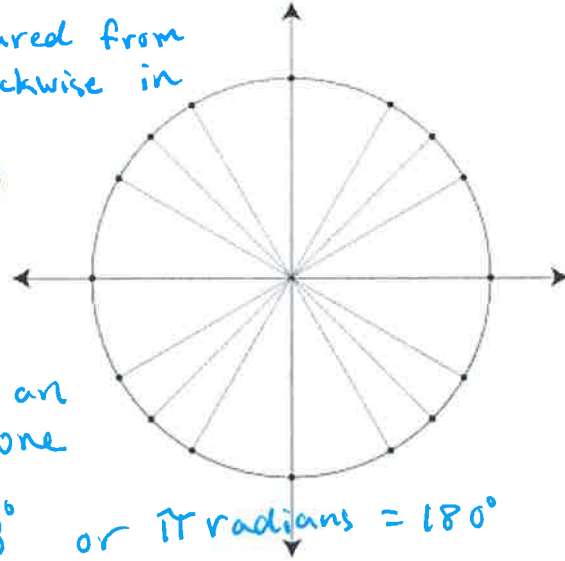
- Angles on a circle are measured from the positive x-axis counterclockwise in degrees or radians.



- Negative angles are measured clockwise.

- A radian is the measure of an angle whose arc length is one radius.

$$1 \text{ radian} \approx 57.3^\circ \quad \text{or} \quad \pi \text{ radians} = 180^\circ$$



Check Your Understanding!

1. Write each angle measure in radians.
 - a. 30°
 - b. 45°
 - c. 225°
 - d. 120°
2. Convert $\pi/7$ radians into degrees.
3. Use your unit circle to answer the questions below:
 - a. What do you notice about the radian measure of all angles that are multiples of 60° ?
 - b. What do you notice about the radian measure of all angles that are multiples of 30° , but NOT multiples of 60° ?
 - c. Which angles are multiples of $\pi/6$ and $\pi/4$?
4. An ant is walking around the perimeter of a circular wreath with a radius of 8 inches. If the ant walked 21 inches, how many radians is the central angle that intercepts her path?