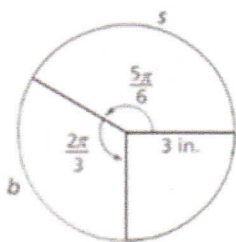


Got It?

1. A central angle of a circle has a measure of 1 radian. If the radius measures 6 cm, what is the measure of the intercepted arc? What does this tell you?

2. What is the degree measure of an angle of $\frac{\pi}{2}$ radians?

3. Use the circle below. What is length b to the nearest tenth?



4. Suppose a weather satellite orbits 3600 km above Earth's surface and completes an orbit every 4 hours. The radius of Earth is 6400 km. How far would the satellite travel in 1 hour?

5. The radius of a circle is 9 cm. A central angle intercepts an arc that is 9 cm. What is the measure of the central angle in radians?

6. A certain baker believes that a perfect slice of pie has a central angle of 1 radian. How many "perfect" slices can he get out of one pie?

7. An angle has a measure of $\frac{2\pi}{7}$ radians. A classmate says that a reasonable estimate for the degree measure of the angle is 103° . Do you agree? Explain.

8. a. Find the radian measure of an angle of 300° .

b. Find the degree measure of an angle of $\frac{4\pi}{3}$ radians.

9. A car on the outer edge of a Ferris wheel rotates through an angle of $\frac{5\pi}{4}$ radians before stopping. If the radius of the Ferris wheel is 50 feet, how far does the car travel? Round to the nearest foot.

10. A tire on a car has a diameter of 30 inches. Through approximately how many radians will a point on the outside of the tire turn after the car has traveled 1 foot?