

Unit 7: Circles

CONCEPT

Name: _____ Date: _____

Show your work and give each answer as a short exact value. Use π for π and degrees where needed.

1. A central angle in a circle measures 65° . What is the measure (in degrees) of the arc it intercepts?

Answer: _____

3. An inscribed angle measures 28° . What is the measure (in degrees) of the arc it intercepts?

Answer: _____

5. A circle has a radius of 7. What is the length of its diameter?

Answer: _____

7. A minor arc of a circle measures 145° . What is the measure (in degrees) of the major arc that makes up the rest of the circle?

Answer: _____

9. A circle has radius 10. Find the length of an arc cut off by a central angle of 36° . Give an exact answer using π .

Answer: _____

11. Two tangent segments are drawn to a circle from the same external point. One segment has length 11. What is the length of the other segment?

Answer: _____

2. An inscribed angle intercepts an arc measuring 100° . What is the measure of the inscribed angle, in degrees?

Answer: _____

4. An angle is inscribed in a semicircle (its intercepted arc is a semicircle). What is the measure of the angle, in degrees?

Answer: _____

6. Two adjacent arcs on a circle measure 40° and 85° . What is the measure (in degrees) of the single arc formed by combining them?

Answer: _____

8. A line is tangent to a circle at a point. What is the measure (in degrees) of the angle between the tangent line and the radius drawn to that point?

Answer: _____

10. A circle has radius 4. Find the length of an arc cut off by a central angle of 180° . Give an exact answer using π .

Answer: _____

12. An arc of a circle measures 72° . What fraction of the whole circle is this arc? Give your answer as a fraction in lowest terms.

Answer: _____