

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

QUIZ - CIRCLES & AREA

PERIOD: \_\_\_\_\_

Read each question carefully. For the multiple choice questions, write the CAPITAL letter of your answer on the line.

1. If the diameter of a circle is 10 cm, what is the radius?

- A) 2.5 cm
- B) 5 cm
- C) 20 cm
- D) 25 cm

Answer: \_\_\_\_\_

2. A wheel has a diameter of 28 inches. What is the approximate distance around the wheel?

- A) 44 inches
- B) 88 inches
- C) 176 inches
- D) 616 inches

Answer: \_\_\_\_\_

3. If the radius of a circle is 18 feet, what is its diameter?

- A) 4.5 feet
- B) 9 feet
- C) 13.5 feet
- D) 36 feet

Answer: \_\_\_\_\_

4. A round clock has radius of 5 cm. What is the approximate area of the clock? Use 3.14 for  $\pi$ .

- A) 31.4 cm<sup>2</sup>
- B) 78.5 cm<sup>2</sup>
- C) 314 cm<sup>2</sup>
- D) 785 cm<sup>2</sup>

Answer: \_\_\_\_\_

5. Shannon's bike tire has a radius of 8 inches. Which equation could be used to find the circumference of the tire in inches?

- A)  $C = \pi \cdot 4$
- B)  $C = \pi \cdot 16 \times 2$
- C)  $C = \pi \cdot 16$
- D)  $C = \pi \cdot 8$

Answer: \_\_\_\_\_

6. The diameter of a circle is 22 meters. What is the approximate area?

- A) 35 m<sup>2</sup>
- B) 69 m<sup>2</sup>
- C) 380 m<sup>2</sup>
- D) 1520 m<sup>2</sup>

Answer: \_\_\_\_\_

7. What is the radius of the circle with a circumference of 452.16 feet?

- A) 72 feet
- B) 58 feet
- C) 36 feet
- D) 12 feet

Answer: \_\_\_\_\_

8. A circular quilt is made from 113.04 square feet of fabric. How much trim is needed to go around its edge? Use 3.14 for  $\pi$ .

- A) 6 feet
- B) 12 feet
- C) 18.84 feet
- D) 37.68 feet

Answer: \_\_\_\_\_

9. You unfold chicken wire to make a circular pen with a diameter of 2.9 meters. How many meters of chicken wire do you need? Round your answer to the *nearest hundredth*.

Answer: \_\_\_\_\_

10. A sprinkler can spray water 10 feet out in all directions. How much area can the sprinkler water? Round your answer to the *nearest tenth*.

Answer: \_\_\_\_\_

11. The circular floor in the Pantheon in Rome has an area of about 1473 square meters. What is the diameter of the floor to the *nearest tenth* of a meter?

Answer: \_\_\_\_\_

12. A spotlight can be adjusted to effectively light a circular area of up to 6 meters in diameter. To the *nearest tenth*, what is the maximum area that can be effectively lit by the spotlight?

Answer: \_\_\_\_\_

Read each question carefully. Round your final answer to the *nearest hundredth* if necessary. You must include all work in order to receive full credit. Make sure you label your final answer with the appropriate units.

13. The area of a circular rug is about 28.26 square feet. What is the circumference of this rug? Use 3.14 for  $\pi$ .

Answer: \_\_\_\_\_

14. Ray drew one circle with a radius of 7 centimeters and another circle with a radius of 10 centimeters.
- a) Find the areas of the two circles. **Clearly label your work.**



Area of Circle: \_\_\_\_\_

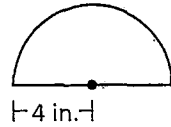
Area of Circle: \_\_\_\_\_

- b) Find the difference between the areas of the circles.

Answer: \_\_\_\_\_

15. Find the perimeter of the semicircular region.

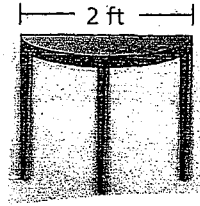
*Show all work below.*



Answer: \_\_\_\_\_

16. Find the perimeter of the semicircular tabletop shown at the right.

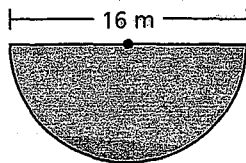
*Show all work below.*



Answer: \_\_\_\_\_

17. Find the area of the semicircle.

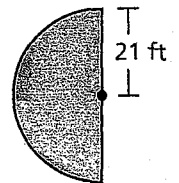
*Show all work below.*



Answer: \_\_\_\_\_

18. Find the area of the semicircle.

*Show all work below.*



Answer: \_\_\_\_\_