

Unit 3: Measuring Circles

ADVANCED • SET 2

Name: _____ Date: _____

Use $\pi \approx 3.14$ (or $22/7$ where a problem says so). Show your work, then give the exact short answer for each problem.

1. A circle has a diameter of 26 cm. Using $\pi = 3.14$, find its circumference in cm.

Answer: _____

2. A circular garden has a radius of 14 m. Using $\pi = 22/7$, find its area in square meters.

Answer: _____

3. A circle has a circumference of 62.8 in. Using $\pi = 3.14$, find its radius in inches.

Answer: _____

4. A circle has an area of 153.86 cm^2 . Using $\pi = 3.14$, find its diameter in cm.

Answer: _____

5. A pizza has a radius of 9 in. Using $\pi = 3.14$, find the area of one quarter ($1/4$) of the pizza in square inches.

Answer: _____

6. A semicircle (half circle) has a diameter of 20 cm. Using $\pi = 3.14$, find its total perimeter (curved part plus the straight edge) in cm.

Answer: _____

7. A circular track has an outer radius of 15 m and an inner radius of 10 m. Using $\pi = 3.14$, find the area of the ring between them in square meters.

Answer: _____

8. A bicycle wheel has a diameter of 0.7 m. Using $\pi = 22/7$, how many complete revolutions does it make to travel 66 m? (round down to a whole number)

Answer: _____

9. A circle has a radius of 5 cm. What is the ratio of its circumference to its diameter, written as a decimal using $\pi = 3.14$?

Answer: _____

10. A circle's area is 200.96 m^2 . Using $\pi = 3.14$, find its circumference in m.

Answer: _____

11. A 90° sector is cut from a circle of radius 12 cm. Using $\pi = 3.14$, find the arc length of that sector in cm.

Answer: _____