Name $\qquad$ Class $\qquad$ Date $\qquad$

## Circumference of a Circle

1. Find the circumference of the circle. Write an exact answer in terms of $\pi$.

2. Find the circumference of the circle. Write an exact answer in terms of $\pi$.

3. Find the circumference of the circle. Use 3.14 for $\pi$. Write an integer or decimal rounded to the nearest hundredth as needed.

4. Find the circumference of the circle. Use 3.14 for $\pi$. Round to the nearest hundredth as needed.

5. Find the diameter of the circle with the circumference $C=27 \mathrm{~cm}$. Use 3.14 for $\pi$. Round to the nearest tenth as needed.
6. The distance around a meteor crater is $9,687 \mathrm{ft}$. Find the diameter of the crater. Use $\frac{22}{7}$ for $\pi$. Write an integer or decimal rounded to the nearest tenth as needed.
7. a) Writing What is the diameter of a circle with a circumference of 29.6 ft ? Use 3.14 for $\pi$. Round to the nearest tenth as needed.
b) How does tripling the circumference of the circle affect the diameter of the circle? Give at least three examples to support your answer.
8. Reasoning Circle I has a radius of 21 meters and Circle II has a radius of 28 meters.
a) Find the circumference of the two circles. Write an exact answer in terms of $\pi$.
b) Is the relationship between the radius of a circle and the distance around the circle the same for all circles? Explain.
9. Error Analysis The diameter of the circle is 18 m . Tim incorrectly says that the circumference of the circle is about 28.26 m .
a) What is the circumference of the circle? Use 3.14 for $\pi$.
b) What mistake did Tim make?

O A. Tim did not multiply by 3.14.
O B. Tim squared the diameter.
C. Tim used 9 instead of 18 for diameter.
D. Tim used 36 instead of 18 for diameter.
10. Fencing How much fencing is required to enclose a circular garden whose radius is 22 m ? Use 3.14 for $\pi$.
11. Mental Math What is the diameter of a circle with a circumference of 132 ft ? Use $\frac{22}{7}$ for $\pi$.
12. Estimation Wheel I has diameter 25.4 in . Wheel II has diameter 22.5 in . Round the diameter of each wheel to the nearest inch. About how much farther will Wheel I travel in one rotation? Use 3.14 for $\pi$.
13. The circumference of the inner circle is 44 ft . The distance between the inner circle and the outer circle is 2 ft . By how many feet is the circumference of the outer circle greater than the circumference for the inner circle? Use $\frac{22}{7}$ for $\pi$.

14. Challenge How many flowers, spaced every 4 in., are needed to surround a circular garden with a 200-ft radius? Use 3.14 for $\pi$.
15. Challenge A bicycle wheel makes five rotations. The bicycle travels 37.94 ft . Find the diameter of the wheel in inches. Use 3.14 for $\pi$.

