

10-1 Study Guide and Intervention *(continued)*

Circles and Circumference

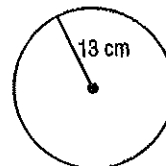
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Circumference The circumference of a circle is the distance around the circle.

Circumference	For a circumference of C units and a diameter of d units or a radius of r units, $C = \pi d$ or $C = 2\pi r$.
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Example Find the circumference of the circle to the nearest hundredth.

$$\begin{aligned}
 C &= 2\pi r && \text{Circumference formula} \\
 &= 2\pi(13) && r = 13 \\
 &\approx 81.68 && \text{Use a calculator.}
 \end{aligned}$$



The circumference is about 81.68 centimeters.

Exercises

Find the circumference of a circle with the given radius or diameter. Round to the nearest hundredth.

1. $r = 8$ cm

2. $r = 3\sqrt{2}$ ft

3. $r = 4.1$ cm

4. $d = 10$ in.

5. $d = \frac{1}{3}$ m

6. $d = 18$ yd

The radius, diameter, or circumference of a circle is given. Find the missing measures to the nearest hundredth.

7. $r = 4$ cm

8. $d = 6$ ft

$d = \underline{\hspace{2cm}}$, $C = \underline{\hspace{2cm}}$

$r = \underline{\hspace{2cm}}$, $C = \underline{\hspace{2cm}}$

9. $r = 12$ cm

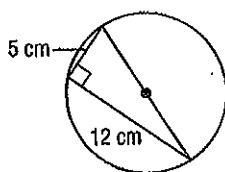
10. $d = 15$ in.

$d = \underline{\hspace{2cm}}$, $C = \underline{\hspace{2cm}}$

$r = \underline{\hspace{2cm}}$, $C = \underline{\hspace{2cm}}$

Find the exact circumference of each circle.

11.



12.

