

Lesson 8.5 • Areas of Circles

Name _____ Period _____ Date _____

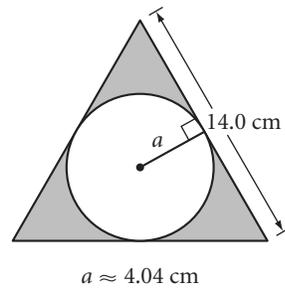
In Exercises 1–4, write your answers in terms of π .

- 1. If $r = 9$ cm, $A =$ _____.
- 2. If $d = 6.4$ cm, $A =$ _____.
- 3. If $A = 529\pi$ cm², $r =$ _____.
- 4. If $C = 36\pi$ cm, $A =$ _____.

In Exercises 5–8, round your answers to the nearest 0.01 unit.

- 5. If $r = 7.8$ cm, $A \approx$ _____.
- 6. If $A = 136.46$, $C \approx$ _____.
- 7. If $d = 3.12$, $A \approx$ _____.
- 8. If $C = 7.85$, $A \approx$ _____.

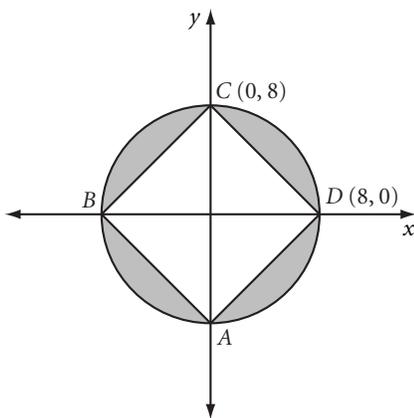
For Exercises 9 and 10, refer to the figure of a circle inscribed in an equilateral triangle. Round your answers to the nearest 0.1 unit.



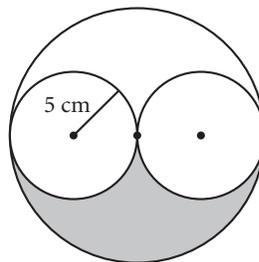
- 9. Find the area of the inscribed circle.
- 10. Find the area of the shaded region.

In Exercises 11 and 12, find the area of the shaded region. Write your answers in terms of π .

- 11. $ABCD$ is a square.



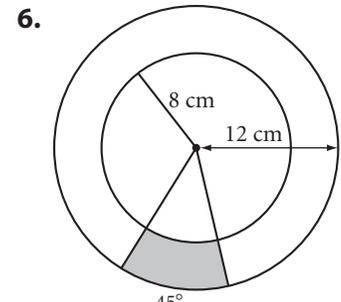
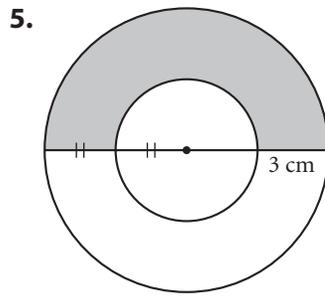
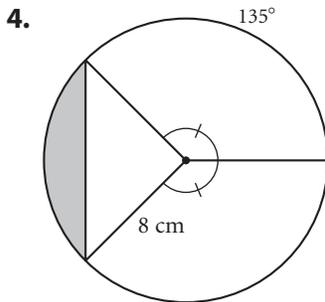
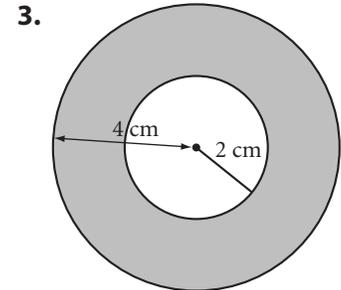
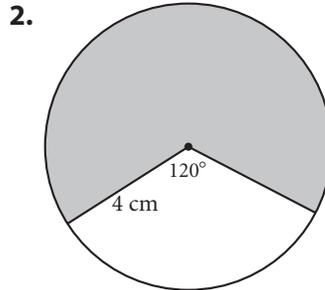
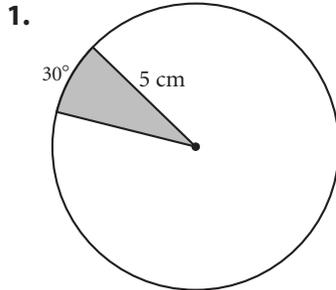
- 12. The three circles are tangent.



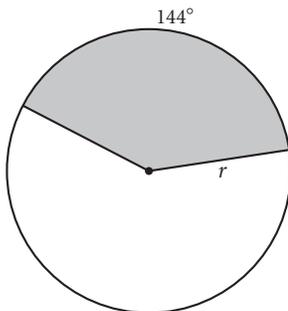
Lesson 8.6 • Any Way You Slice It

Name _____ Period _____ Date _____

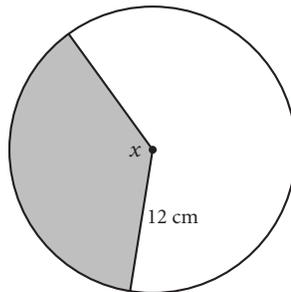
In Exercises 1–6, find the area of the shaded region. Write your answers in terms of π and rounded to the nearest 0.01 cm^2 .



7. Shaded area is $40\pi \text{ cm}^2$.
Find r .



8. Shaded area is $54\pi \text{ cm}^2$.
Find x .



9. Shaded area is $51\pi \text{ cm}^2$.
The diameter of the larger circle is 20 cm. Find r .

