Assignment

LESSON 3: Circular Reasoning

Write

Write the area and circumference formulas for circles.

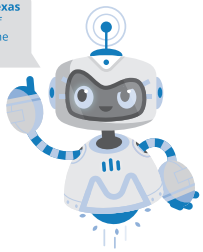
Describe pi in terms of the area and radius of a circle. Describe pi in terms of the circumference and radius of a circle.

Remember

Given a specific length to form a perimeter or circumference, arranging that length into the shape of a circle provides the maximum area.

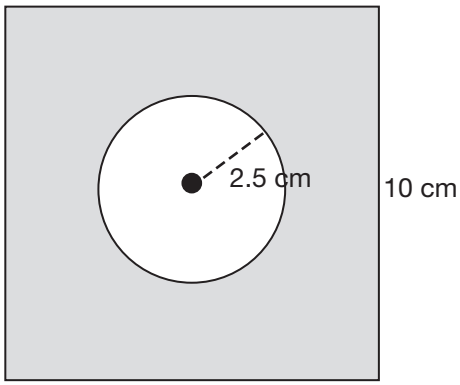
Practice

Visit **livehint.com/texas** or use this QR code if you need a hint on the Practice questions.

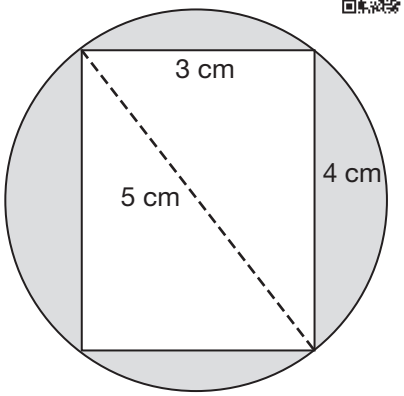


Calculate the area of the shaded region in each figure. Use 3.14 for π and round to the nearest tenth, if necessary.

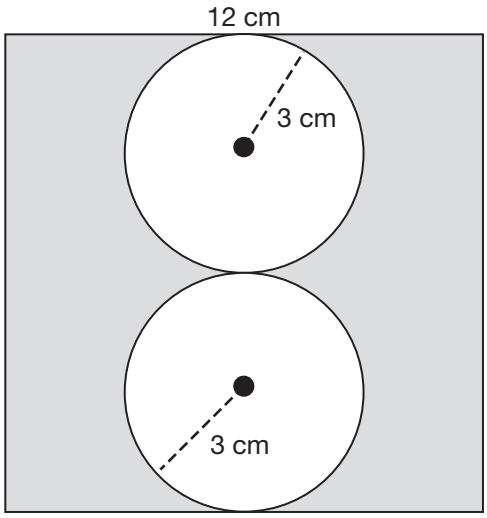
1.



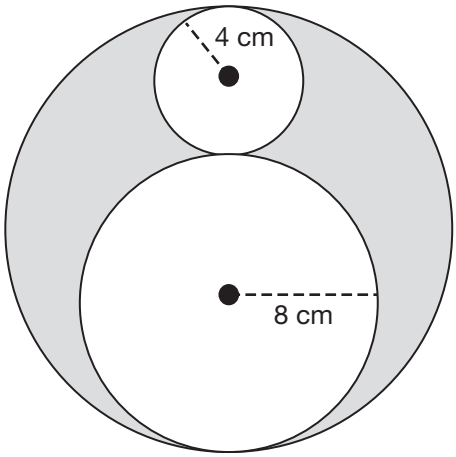
2.



3.

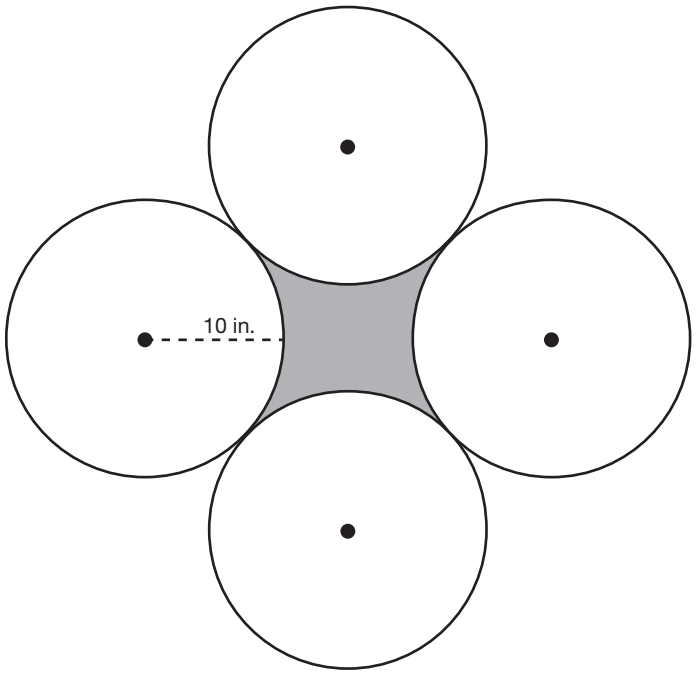


4.



Stretch

1. Determine the area of the shaded region. All circles have the same radius of 10 inches.



Review

Solve each problem. Round your answer to the nearest tenth, if necessary.

1. Jose is adding mulch to an existing round flower bed. The length of the rubber edging around the flower bed is 25.12 feet. What is the area that Jose needs to cover with mulch?
2. Nami is adding a mosaic pattern to the top of a small round table. The distance around the edge of the table top is 4.7 feet. What is the area that Nami needs to cover with the mosaic pattern?

Determine each area.

3. Area of a triangle with a base length of 4 in. and a height of 9 in.
4. Area of a parallelogram with a base length of 2.9 ft and a height of 5.5 ft.
5. Area of a trapezoid with a top base length of 6 cm, a bottom base length of 12 cm, and a height of 5 cm.

Write a unit rate for each ratio.

6. $\frac{28 \text{ cm}}{4 \text{ square feet}}$
7. $\frac{5.15 \text{ yd}}{5 \text{ square feet}}$