

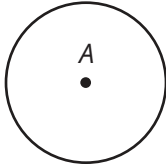
Skills Practice

Name _____ Date _____

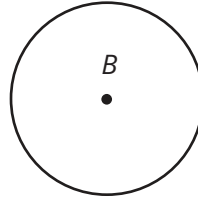
I. Exploring the Ratio of Circle Circumference to Diameter

A. Use a string and a centimeter ruler to measure the radius and circumference of each circle. Calculate the ratio of the circumference of the circle to its diameter.

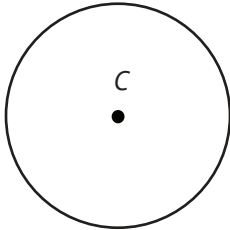
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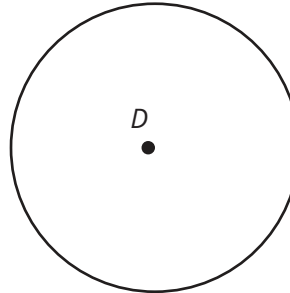
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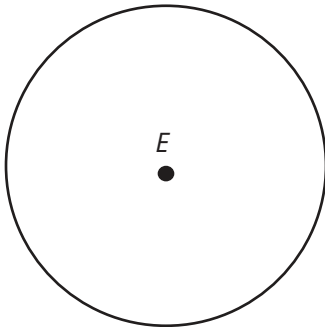
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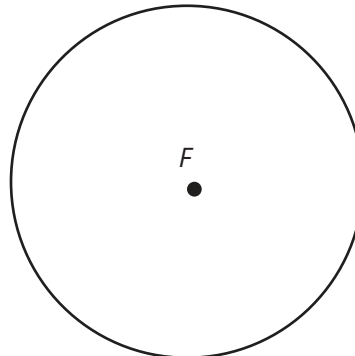
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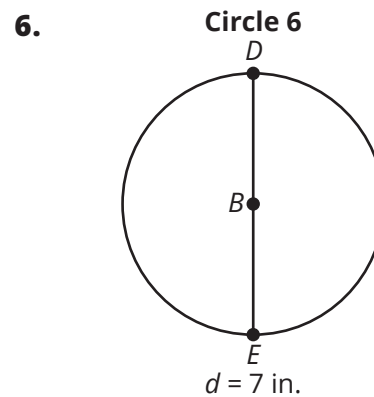
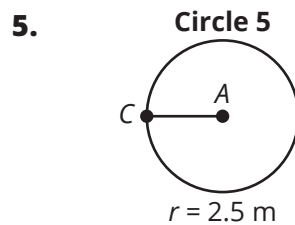
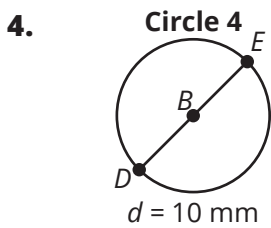
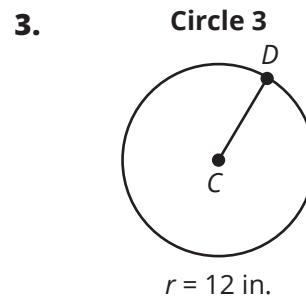
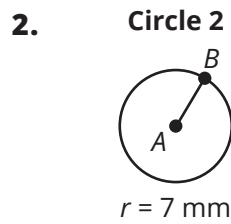
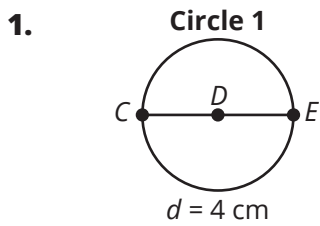
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B. Use the given information to complete the table. Use 3.14 for π . Then verify that π is the ratio of the circumference to the diameter for each circle.



Circle	Circumference	Radius	Diameter	$\pi = \frac{\text{Circumference}}{\text{Diameter}}$
1. Circle 1				
2. Circle 2				
3. Circle 3				
4. Circle 4				
5. Circle 5				
6. Circle 6				

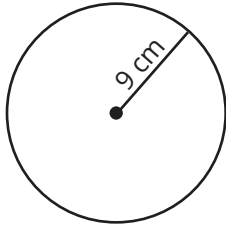
C. Determine the circumference for each problem situation. Use 3.14 for π and round to the nearest hundredth, if necessary.

- 1.** Andrea bought a new circular dining room table with a radius of 2 feet. She wants to decorate the outer edge of the table with wooden beads. What is the distance around the outer edge of the table?
- 2.** Tiffany buys a circular mirror. She wants to decorate the mirror by gluing ribbon along the outer edge of the mirror. How long is the ribbon if the mirror has a 15 inch radius?
- 3.** Marco runs laps at the local high school. It is a circular track with a diameter of 45 feet. How far does he run after completing one lap?
- 4.** Santos is designing a platform for a local theater company. He plans to paint a red circle in the center of the platform, and he plans to outline the circle with black paint. If the circle has a diameter of 8 meters, how long is the black outline?
- 5.** A circus sets up a miniature train for children to ride. The circular track has a radius of 6 feet. How far will the train travel after one rotation on the track?
- 6.** Isabelle has a leash for her dog in the backyard. The leash is attached to a post which allows the dog to travel in a circle around the post. The leash is 3 feet long. Isabelle wants to add a rubber border around the area for her dog. What length of rubber border will she need?

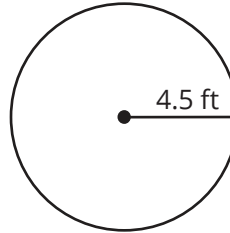
II. Area of Circles

- A. Calculate the area of each circle. Use 3.14 for π and round to the nearest hundredth, if necessary.

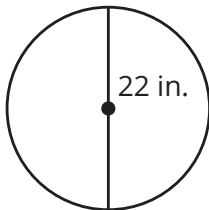
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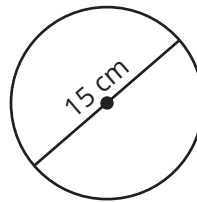
2.



3.



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5. A circle has a radius of 150 millimeters. 6. A circle has a diameter of 65 feet.

B. Determine the circumference or area for each problem situation. Use 3.14 for π and round your answer to the nearest hundredth, if necessary.

- 1.** Jaleesa is buying a round backyard pool. The distance around the edge of the pool is 38 feet. Find the area that the pool will cover.
- 2.** Belinda is digging a round flower garden in her backyard. She has 19 feet of rubber edging to place around the garden. What is the area of the new garden?
- 3.** Carlos is spreading mulch in a circle on top of an area where he has planted some seeds. He has enough mulch to cover an area that is 12.5 square feet. How much rubber edging does Carlos need to encircle the mulch that will cover the seeds?
- 4.** 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?
- 5.** Eva is decorating for a birthday party. She would like to add a paper streamer around the edge of a round table. The table covers an area of 19.5 square feet. What is the minimum length of the paper streamer Eva needs?
- 6.** 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?

C. Fiesta's Restaurant offers the following sizes of quesadillas.

	Kids	Small	Medium	Large
Diameter	6 in.	8 in.	10 in.	12 in.
Pieces	4	6	8	10
Cost	\$2.99	\$4.59	\$6.29	\$7.49

Martina is trying to determine which size offers the best buy. Determine the unit rate for each size of quesadillas. Use 3.14 for π and round to the nearest hundredth, if necessary.

- Kids
- Small
- Medium
- Large
- Which size quesadillas is the best buy? Explain your reasoning.
- What is the difference in cost between the unit rate of the most expensive size and the least expensive size?

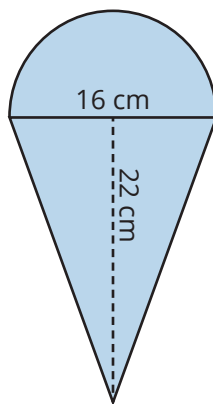
III. Solving Area and Circumference Problems

A. Solve each problem. Let $\pi = 3.14$. Round your answer to the nearest hundredth, if necessary.

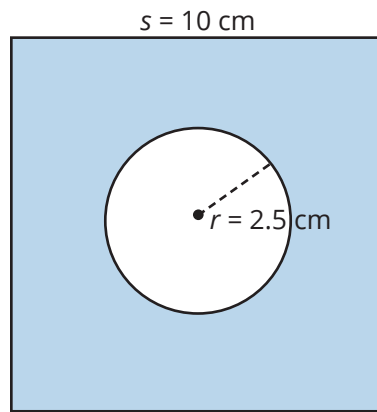
- 1.** You need to replace the cover for a light in your bathroom. The light cover is a circle. The circumference of the light cover is 43.96 inches. What are the radius and diameter of the light cover? What is the area of the light cover?
- 2.** You order a pizza for dinner. The circumference of the pizza is 31.4 inches. What are the radius and diameter of the pizza? What is the area of the pizza?
- 3.** You are responsible for setting the table for dinner. Each place setting has a circular dinner plate. The circumference of the dinner plate is 37.68 inches. What are the radius and diameter of the dinner plate? What is the area of the dinner plate?
- 4.** You collect coins. One of your favorite coins is a silver-colored coin showing a man's portrait. The radius of the coin is 12 millimeters. What is the diameter of the coin? What is the circumference of the coin? What is the area of the coin?
- 5.** You buy a new wheel for your bicycle. The diameter of the bicycle wheel is 22 inches. What is the radius of the bicycle wheel? What is the circumference of the bicycle wheel? What is the area of the bicycle wheel?
- 6.** Your friend orders a new cover for his round swimming pool. The area of the pool cover is 200.96 square feet. What are the radius and diameter of the pool cover? What is the circumference of the pool cover?

B. Determine the area of each shaded region. Let $\pi = 3.14$. Round your answer to the nearest hundredth, if necessary.

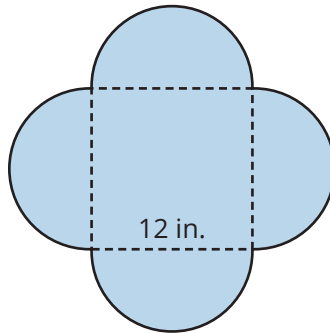
1. A figure is composed of a triangle and a semicircle.



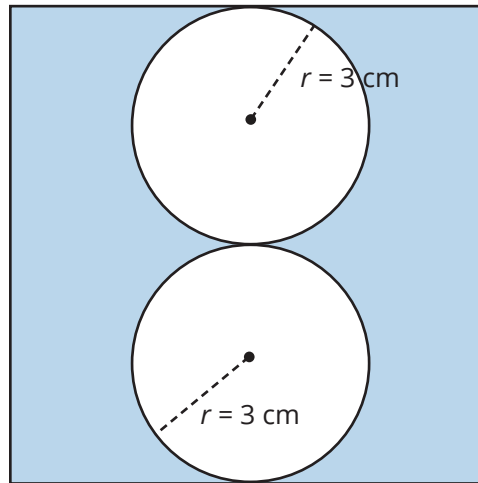
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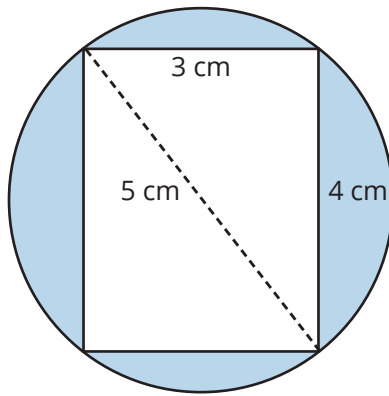
3. A figure is composed of a square and four semicircles.



4.



5.



6.

