

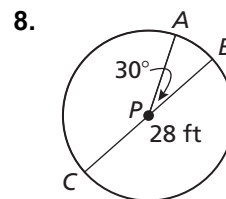
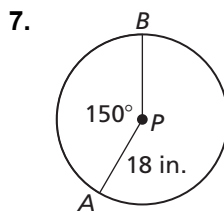
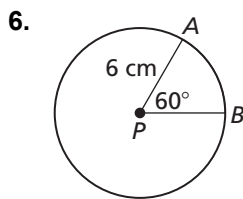
# 11.1

## Practice A

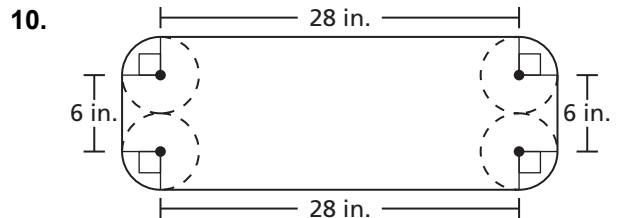
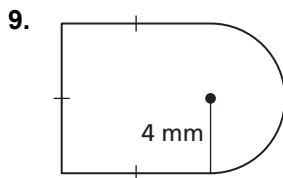
In Exercises 1–4, find the indicated measure.

- radius of a circle with a circumference of  $42\pi$  meters
- circumference of a circle with a radius of 27 feet
- circumference of a circle with a diameter of 15 inches
- diameter of a circle with circumference 39 centimeters
- Maple trees suitable for tapping for syrup should be at least 1.5 feet in diameter. You wrap a rope around a tree trunk, then measure the length of the rope needed to wrap one time around the trunk. This length is 4 feet 2 inches. Explain how you can use this length to determine whether the tree is suitable for tapping.

In Exercises 6–8, find the arc length of  $\widehat{AB}$ .

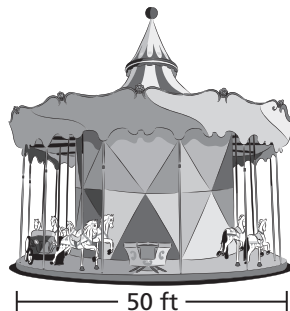


In Exercises 9 and 10, find the perimeter of the region.



In Exercises 11 and 12, convert the angle measure.

- Convert  $60^\circ$  to radians.
- Convert  $\frac{5\pi}{4}$  radians to degrees.
- A carousel has a diameter of 50 feet. To the nearest foot, how far does a child seated near the outer edge travel when the carousel makes 8 revolutions?

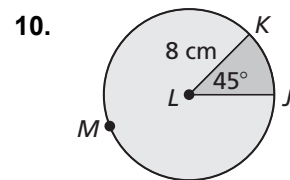
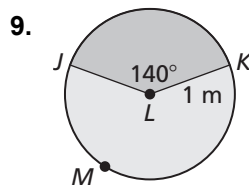
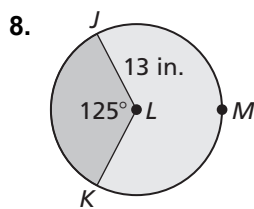
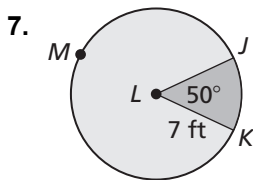


# 11.2 Practice A

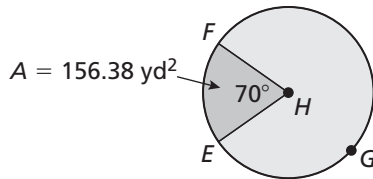
In Exercises 1–4, find the indicated measure.

- area of a circle with a radius of 6.8 feet
- area of a circle with a diameter of 19.2 centimeters
- radius of a circle with an area of 1017.9 square meters
- diameter of a circle with an area of 707 square inches
- About 1.2 million people live in a region with a 6-mile radius. Find the population density in people per square mile.
- A region with a 15-mile diameter has a population density of about 5000 people per square mile. Find the number of people who live in the region.

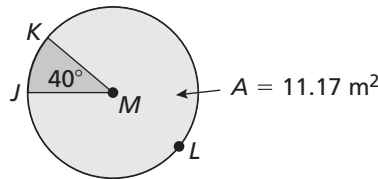
In Exercises 7–10, find the areas of the sectors formed by  $\angle JLK$ .



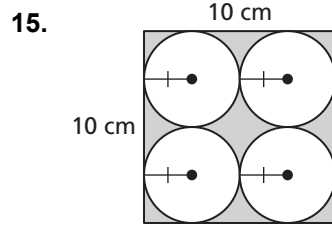
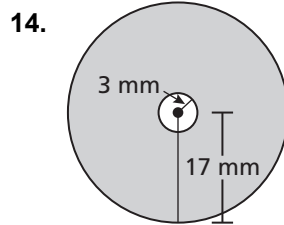
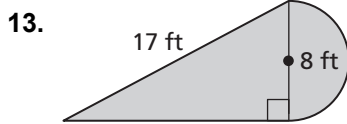
11. Find the area of  $\odot H$ .



12. Find the area of  $\odot M$ .



In Exercises 13–15, find the area of the shaded region.



16. The diagram shows the coverage of a security camera outside a building. A new security camera is installed in the same position that doubles the radius of the coverage area. How does this affect the coverage area? Explain.

