

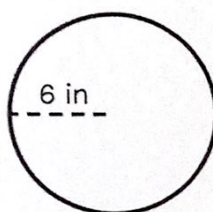
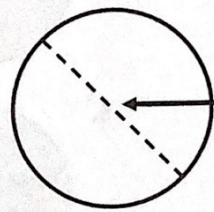
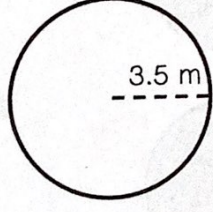
# CIRCUMFERENCE

- The circumference of a circle is the distance around the circle. It can be found using two formulas:

\_\_\_\_\_ or \_\_\_\_\_

- $\pi$  can be approximated to \_\_\_\_\_

Using the diameter and radii given below, find the circumference of the circles.

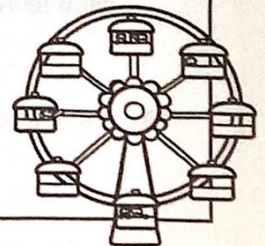
CIRCLE 1	CIRCLE 2	CIRCLE 3
		
Formula: _____	Formula: _____	Formula: _____
Plug in Values: _____	Plug in Values: _____	Plug in Values: _____
In terms of $\pi$ : _____	In terms of $\pi$ : _____	In terms of $\pi$ : _____
Circumference: _____	Circumference: _____	Circumference: _____

Use your knowledge of circumference and circles to answer question 1.

1. A Ferris wheel travels in a circular motion and measures 40 meters from the top car to the bottom car.

- What is the length of the radius of the Ferris wheel?
- What is the length of the diameter of the Ferris wheel?
- A car travels one time around the Ferris wheel. How many meters did the car travel?

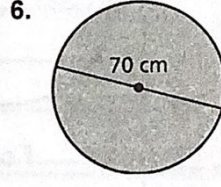
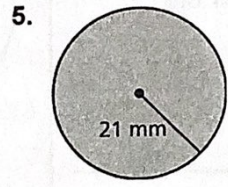
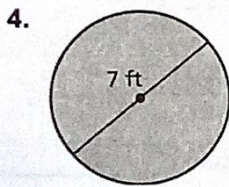
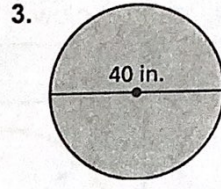
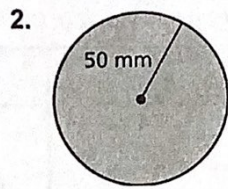
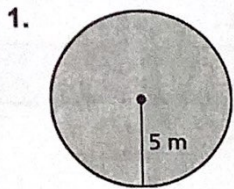
d. On another Ferris wheel, a car will travel 100.48 meters to go once around the wheel. What is the height from the top car to the bottom car?



Summarize today's lesson:

**Lesson 8.4** Extra Practice

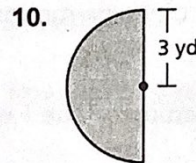
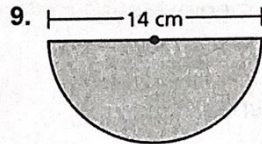
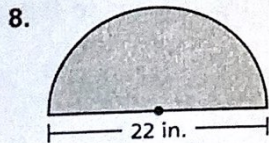
Find the area of the circle.



7. Your friend finds the area of a circle with a diameter of 9 inches. Is your friend correct? Explain.

$$\begin{aligned} \text{Area} &= \pi r^2 \\ &\approx 3.14 \cdot 4.5 \cdot 2 \\ &= 28.26 \text{ square inches} \end{aligned}$$

Find the area of the semicircle.



12. A circular patio has a radius of 4 yards. The patio is expanded so that the radius increases by 2 yards. By how many square yards does the area of the patio increase?

13. Find the area of the circle in square feet.

