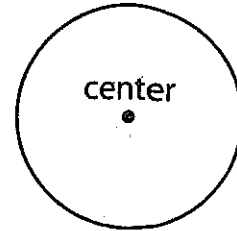


Standard 7.G.4 (L)

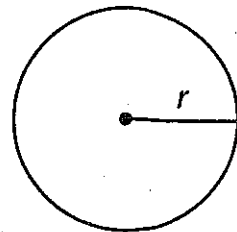
Radius & Diameter

In previous math classes, you learned about circles and their parts (radius, diameter). You also learned how to determine a circle's circumference and area. Let's review some important terms before continuing your study of circles.

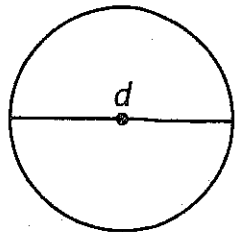
A **circle** is a round plane figure with all of its points **equidistant** (the same distance) from a point called the **center**.



The **radius** is the distance from a circle's center to its edge. In most diagrams, the radius is represented by a line segment beginning at the circle's center and labeled with the variable r .



A circle's **diameter** is the distance through the center of a circle from one side to the other. In most diagrams, the diameter is represented by a line segment passing through the center of the circle and labeled with the variable d .



A circle's diameter is twice the length of its radius, OR a circle's radius is half the length of its diameter. You can express the relationship between a circle's diameter and radius with simple equations: $d = 2r$ OR $r = \frac{d}{2}$.

On Your Own: Complete each item below.

1. A pizza has a diameter of 14 inches. The pizza's radius is _____.
2. A pie has a radius of 4.5 inches. The pie's diameter is _____.

Standard 7.G.4 (M)

The Longest Word

Directions: Solve each problem below. Then, match each answer with a letter from the code chart that follows to answer the riddle on page 67.

1. A circular window has a diameter of 18 inches. What is the radius of the window?

2. The radius of a round tablecloth is 4.25 feet. What is the diameter of the tablecloth?

3. A round pizza has a radius of 9 inches. What is the diameter of the pizza?

4. A frying pan has a diameter of 8.5 inches. What is the radius of the frying pan?

5. The diameter of a doorknob is 2.6 inches. What is the radius of the doorknob?

6. The radius of a watch face is 4 centimeters. What is the diameter of the watch face?

7. A round manhole cover has a diameter of 3.5 feet. What is the radius of the manhole cover? _____
8. A cookie has a radius of 1.25 inches. What is the diameter of the cookie?

9. The diameter of a wheel is 13 inches. What is the radius of the wheel?

10. A donut has a diameter of 9.5 centimeters. What is the radius of the donut?

11. The radius of a quarter is 0.5 inches. What is the diameter of the quarter?

continue to next page

12. The diameter of a round swimming pool is 14 feet. What is the radius of the swimming pool? _____
13. The diameter of a soda can is 1.5 inches. What is the radius of the soda can?

14. A dog's water bowl has a radius of 7.4 inches. What is the diameter of the water bowl?

What is the longest word in the dictionary?

Code Chart

A	B	C	E	H	I	L	M	N	R	S	T	U	W
1.75	18	14.8	1.3	0.75	9	1	8	2.5	4.75	8.5	7	6.5	4.25

2 6 1 11 5 2 3 5 14 7 9 2 5

12 13 5 10 5 1 2 7 6 1 11 5

3 5 12 4 5 5 8 5 7 14 13 2