

Name: _____

Date: _____

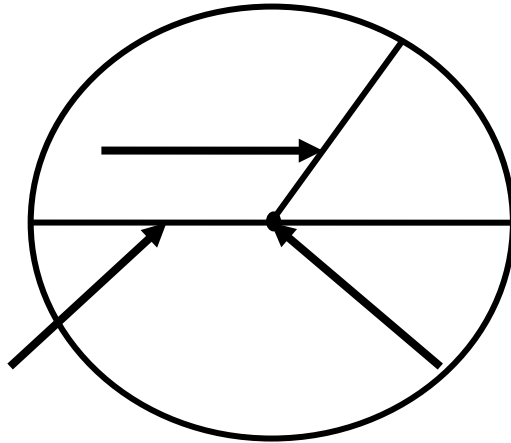
7.G.1: Calculate the radius or diameter, given the circumference or area of a circle

Circle Relationships:

The _____ is the distance around a circle. ($C = \pi d$). The _____ is a segment with endpoints at the center and on the circle.

The _____ is a segment through the center of a circle with endpoints on the circle; ($d = 2r$).

_____ (π) is the ratio of the circumference to the diameter of any circle. ** Be sure to use the pi button on your calculator when expressing this relationship. **



Directions: Calculate each of the following using the circle relationships stated above.

A.) Find the diameter. ($d = 2r$)

1.) $r = 3 \text{ m}$ _____

2.) $r = 10 \text{ cm}$ _____

3.) $r = 9 \text{ ft}$ _____

4.) $r = 12 \text{ yd}$ _____

B.) Find the radius. ($r = \frac{d}{2}$)

1.) $d = 12 \text{ m}$ _____

2.) $d = 24 \text{ cm}$ _____

3.) $d = 30 \text{ ft}$ _____

4.) $d = 50 \text{ yd}$ _____

C.) Ratios of Circle Relationships:

5.) Which is the best estimate for the ratio of the circumference of a circle to its diameter?

A.) 6:1

B.) 3:1

C.) 1:2

D.) 1:3

6.) Which is the best estimate of the ratio of the circumference of a circle to its radius?

A.) 6:1

B.) 2:1

C.) 1:2

D.) 1:6

D.) Fill in the blanks of the table. You must show your work in order to receive full credit.

RADIUS	DIAMETER	CIRCUMFERENCE
$(r = \frac{d}{2})$	$(d = 2r)$	$(C = \pi d)$
		C = 50.24 m
r = 13 in		
		C = 440 ft
	d = 80 mm	
		C = 286 ft
	d = 250.8 mi	
		C = 62.8 m
r = 13.7 cm		

E.) In terms of Pi (π)

1.) What is the radius of a circle with a circumference of 8π inches?

2.) What is the radius of a circle with a circumference of 175π meters?
