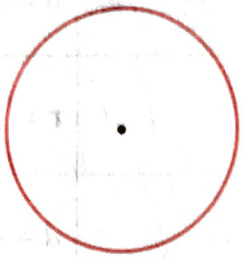
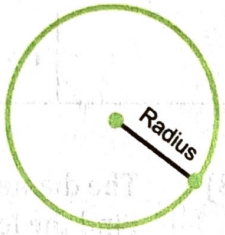
Name: Key

Date: _____

7R

Classwork 11.1

Parts of a Circle

TERM	PICTURE	DEFINITION
CIRCLE		A set of points that are <u>equidistant</u> from another given point, called the <u>center.</u>
RADIUS		The distance from the <u>center</u> to the <u>outside</u> of the circle. **$r = \frac{1}{2} d$** ***The radius is equal to half the diameter.***
DIAMETER		The distance <u>around</u> the circle. It goes through the <u>center</u> of a circle connecting two points on the <u>outside.</u> **$d = 2r$** ***The diameter is equal to double (2x) the radius.***
CIRCUMFERENCE		The distance <u>around</u> the <u>outside</u> of the circle. Formula: $C = 2\pi r$ or $C = \pi d$
π	pi	The <u>ratio</u> of a circle's circumference to its diameter. The symbol for pi is **<u>π</u>** **π** is an <u>irrational</u> number. **π** is approximately <u>3.14</u>

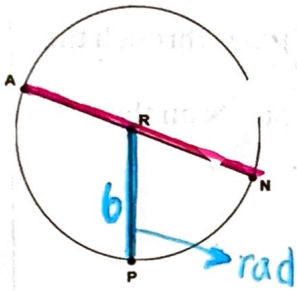
Examples:

1) Calculate the following;

Given...	Find...	Answer
Radius (r) = 10 in ×2	The diameter (d)	**d =** 20 in
Diameter (d) =6.4 in ÷2	The radius (r)	**r =** 3.2 in
Radius (r) = 12.3 in ×2	The diameter (d)	**d =** 24.6 in
Diameter (d) = 1 in ÷2	The radius (r)	**r =** 0.5 in

2) The radius RP is 6 inches.
What is the length of AN?

AN represents the diameter



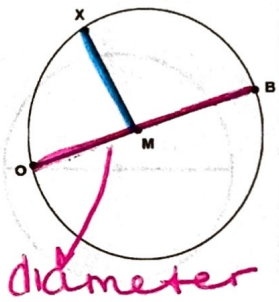
6×2 =

AN = 12 in

3) The diameter of OB is 14 cm.
Find the length of XM.

XM represents the radius

14 ÷2 =



XM = 7 cm

Try It!

1) *Calculate the following:*

a. Given: radius (r) = 8 inches, find the diameter (d) ×2 d = 16 in.

b. Given: diameter (d) = 14.6 inches, find the radius (r) ÷2 r = 7.3 in.

c. Given: radius (r) = 6.5 inches, find the diameter (d) ×2 d = 13 in.

d. Given: diameter (d) = 11 inches, find the radius (r) ÷2 r = 5.5 in.

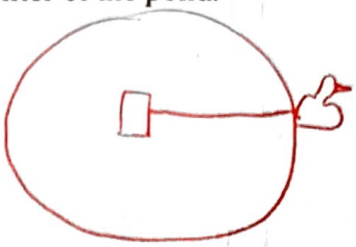
e. Given: radius (r) = 9 inches, find the diameter (d) ×2 d = 18 in.

÷ 2

2) The diameter of Lexa's hula hoop is 36 inches. What is the radius of Lexa's hula hoop?

A 6 in. **B** 9 in. **C** 18 in. **D** 72 in.

3) A duck swims from the edge of a circular pond to a fountain in the center of the pond. What term describes the duck's path? **Draw it out.**



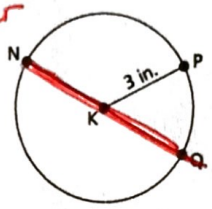
A chord **C** diameter

B radius **D** central angle

4) The radius KP is 3 inches. What is the length of NQ?

diameter

× 2



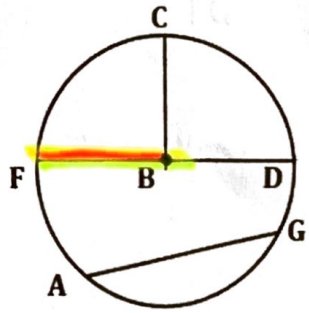
[not drawn to scale]

A 3 inches **B** 4 inches

C 6 inches **D** 9 inches

#5-9 Fill in the questions below using the word bank and Circle B.

DIAMETER	CIRUCMFERENCE	RADIUS	VERTEX	ANGLE



5) The Circumference is the distance around the outer edge of a circle, the perimeter.

6) $\overline{BF}$ is a radius in circle B.

7) $\angle CBD$ is an angle whose vertex is at Point B.

8) The distance across the circle through the center is the diameter

9) $\overline{AG}$ is the diameter in circle B. **True** *or* **False**

* does not go through center *