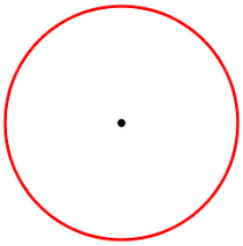
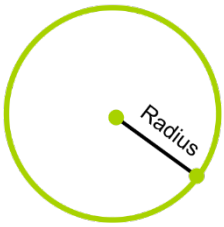
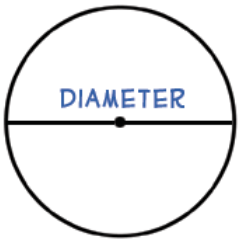
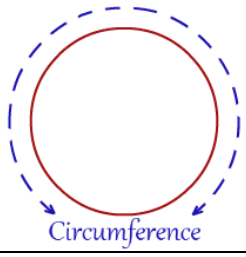
Name _____ Date _____

Math 7 **Classwork 11.1**

Parts of a Circle

TERM	PICTURE	DEFINITION
CIRCLE		A set of points that are an equal distance (equidistant) from another given point, called the **center**.
RADIUS		The **distance** from the **center** to the **circumference** of the circle. **r = ½ d** ***The radius is equal to half the diameter.***
DIAMETER		The **distance across** the circle. It goes through the center of a circle connecting two points on the circumference. **d = 2r** ***The diameter is equal to double (2x) the radius.***
CIRCUMFERENCE		The **distance around** the outside of the circle**.** Formula: C = 2 ***π*** r or C = ***π*** d
π	**pi**	The **ratio** of a circle's circumference to its diameter. The symbol for pi is **π** **π** is an irrational number (It never ends and it never repeats.) **π** is approximately 3.**141592654** (press the Pi button on your calculator).

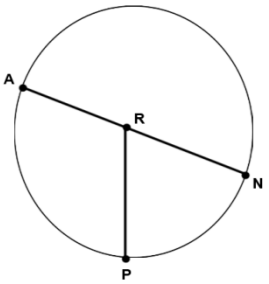
Examples:

1.) Calculate the following;

Given…	**Find…**	**Answer**
Radius (r) = 10 in	The diameter (d)	**d =** _____ in
Diameter (d) =6.4 in	The radius (r)	**r =** _____ in
Radius (r) = 12.3 in	The diameter (d)	**d =** _____ in
Diameter (d) = 1 in	The radius (r)	**r =** _____ in

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

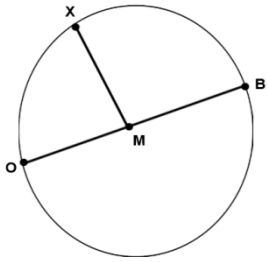
AN represents the _____.



AN = _____

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

XM represents the _____.



XM = _____

Try It!

1.) Calculate the following:

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

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

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

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

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

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**.

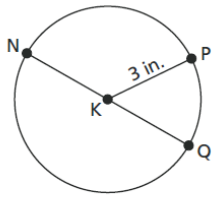
A chord **C** diameter

B radius **D** central angle

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

A 3 inches **B** 4 inches

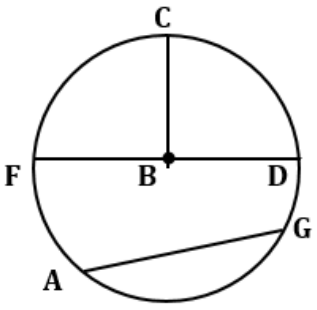
C 6 inches **D** 9 inches



[not drawn to scale]

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

DIAMETER	**CIRCUMFERENCE**	**RADIUS**	**VERTEX**	**ANGLE**



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

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

7.) $\angle CBD$ is an _____ whose _____ is at point B.

8.) The distance across the circle through the center is the _____

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