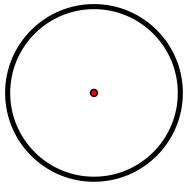
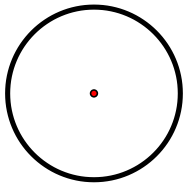
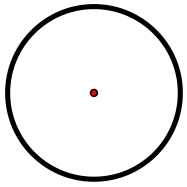
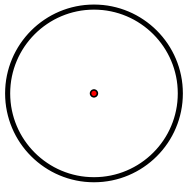
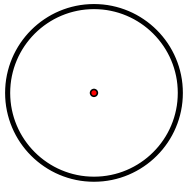
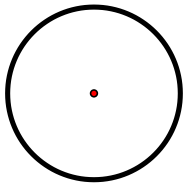
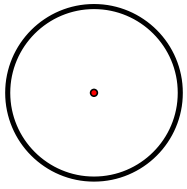
Name _____ Date _____

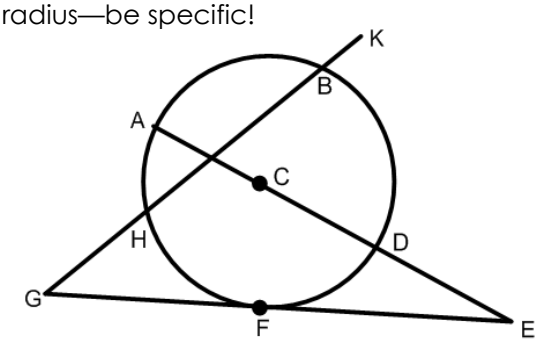
Day 1 – Circle Vocabulary and Central Angles

Circle	set of all points equidistant from a given point called the center of the circle	
Chord	a segment whose endpoints are on the circle	
Diameter	distance across the circle through its _____ (twice the length of the radius)	
Radius	distance from the center to point on circle (half the length of the diameter)	
Secant	a line that intersects the circle at exactly _____ points	
Tangent	a _____ that intersects the circle exactly ONE time	
Point of Tangency	where the tangent line intersects the circle	

Circles have _____ degrees. Semicircles have _____ degrees.

REMEMBER: Vertical Angles are _____ and Linear Pairs are _____

Practice: Tell whether the line or segment is best described as a chord, a secant, a tangent, a diameter, or a radius—be specific!



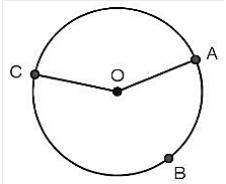
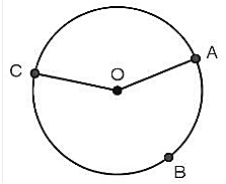
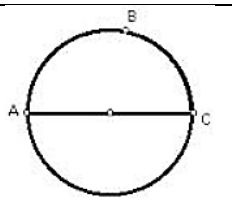
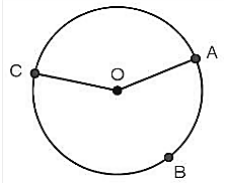
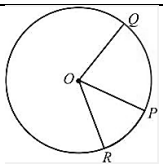
a. $\overline{AD}$ b. $\overline{CD}$

c. $\overline{EG}$ d. $\overline{HB}$

e. $\overline{FB}$ g. $\overline{GK}$

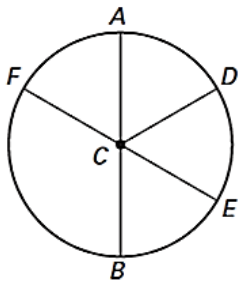
Arcs & Central Angles

An **arc** is an unbroken part of a circle consisting of two points called the endpoints and all the points on the circle between them.

Arc or Angle	Definition	Measure	Picture
Minor Arc	An arc whose points are on or in the interior of a central angle. Minor arcs are less than 180° and only use two letters to name them.	The measure of a minor arc is equal to the measure of the central angle.	
Major Arc	An arc whose endpoints are on or in the exterior of a central angle. Major arcs are between 180° and 360°. Three letters are used to name a major arc.	The measure of a major arc is equal to 360° minus the measure of its central angle or minor arc.	
Semicircle	An arc whose endpoints lie on a diameter. Semicircles are named using three letters.	The measure of a semicircle is 180°.	
Central Angle	An angle whose vertex is the center of the circle.	The measure of a central angle is equal to the measure of its minor arc.	
Name	**Theorem**	**Hypothesis**	**Conclusion**
Arc Addition Postulate	The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs.		

Practice

Example: Identify the following arcs are minor, major, or semicircle.



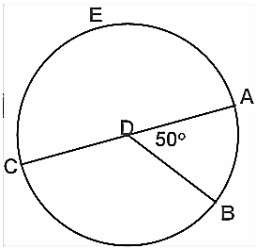
1. AE

2.FDE

3.FA

4.DFB

Example: Find the measure of the following:



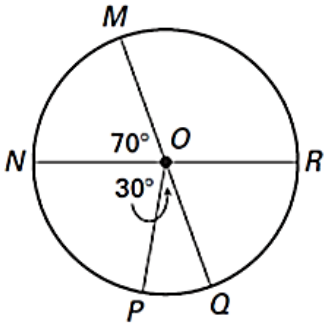
1.mAB

2.mBC

3.mAEC

4.mBCA

Example: Find the measure of the following:



1.mMN

2.mNQ

3.mNQR

4.mMRP

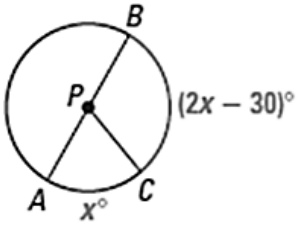
5.mQR

6.mMR

7.mQMR

8.mPQ

9.mPRN

10.mMQN

Example: Find the value of x. Then find the measure of arc BC.