Name: _____ # _____

Geometry: Period _____
Ms. Pierre
Date: _____

Parts of a Circle

Today's Objective

SWBAT identify parts of a circle and as well as classify arcs as minor or major.

Circular arcs are classified by their measure.

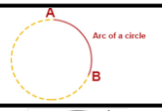
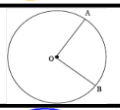
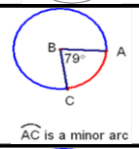
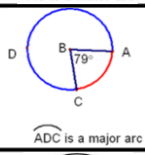
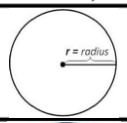
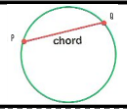
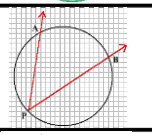
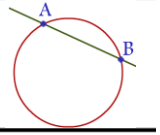
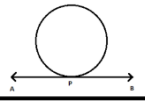
_____ arcs measure less than 180°. They are typically named using _____ points.

_____ arcs measure less than 180°. They are typically named using _____ points.

An arc measuring exactly 180°may be called a

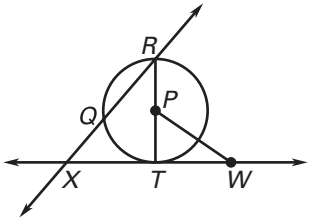
_____- _____.

Explore

Term	Definition	Illustration
Circle	A round plane figure whose boundary (circumference) consists of points equidistant for a fixed point (center)	
Arc	An unbroken part of a circle	
Central Angle	An angle whose vertex is at the center of a circle	
Minor Arc	Given two points on a circle, it is the **shortest** arc linking them. Arc that have a measure **less** than 180˚	
Major Arc	Given two points on a circle, it is the **longest** arc linking them. Arc that have a measure **greater** than 180˚	
Radius	A straight line from the center to the circumference of a circle or sphere	
Diameter	A straight line passing from side to side through the center of a circle or sphere	
Chord	A segment whose endpoints are on a circle	
Inscribed Angle	An angle whose vertex is on the circle and whose sides contain chords of a circle	
Secant	A segment that contains a chord of a circle and has exactly one endpoint outside of the circle	
Tangent	A line in the plane of a circle that intersects a circle at only one point, the point of tangency	

Example 1

Tell whether the line, ray, or segment is best described as a *radius*, *chord*, *diameter*, *secant*, or *tangent* of $\odot P$.



a. $\overline{RT}$

b. $\overleftrightarrow{WT}$

c. $\overline{PT}$

d. $\overleftrightarrow{RQ}$

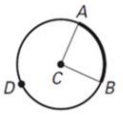
☑ Check for Understanding

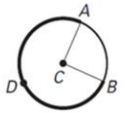
a. What word best describes $\overline{QR}$?

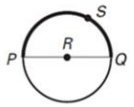
b. What word best describes $\overline{PR}$?

Example 2

Name the arc shown in bold and classify it as a major arc, a minor arc or a semi-circle.

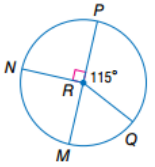
a) 

b) 

c) 

☑ Check for Understanding

$\overline{PM}$ is a diameter for $\odot R$. Classify each arc as a major arc, a minor arc or a semi-circle.



a) $\overset{\frown}{MQ}$

b) $\overset{\frown}{MNP}$

c) $\overset{\frown}{MNQ}$

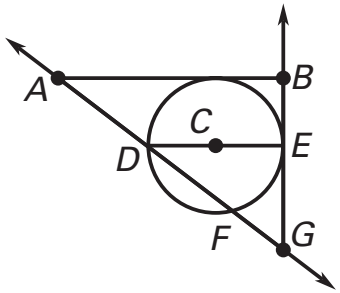
Guided Practice

1) Tell whether the line, ray, or segment is best described as a *radius*, *chord*, *diameter*, *secant*, or *tangent* of $\odot C$.

a. $\overline{DF}$

b. $\overline{AB}$

c. $\overline{CE}$

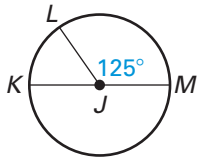


2) $\overline{KM}$ is a diameter for $\odot J$. Classify each arc as a major arc, a minor arc or a semi-circle.

a) $\overline{LM}$

b) $\overline{LMK}$

c) $\overline{KLM}$



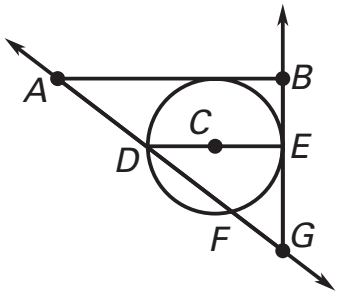
Independent Practice

1) Tell whether the line, ray, or segment is best described as a *radius*, *chord*, *diameter*, *secant*, or *tangent* of $\odot C$.

a. $\overline{DE}$

b. $\overleftrightarrow{AG}$

c. $\overrightarrow{EB}$



2) $\overline{CD}$ is a diameter for $\odot E$. Classify each arc as a major arc, a minor arc or a semi-circle.

a) $\overset{\frown}{AD}$

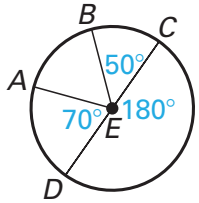
b) $\overset{\frown}{AB}$

c) $\overset{\frown}{CD}$

d) $\overset{\frown}{BDC}$

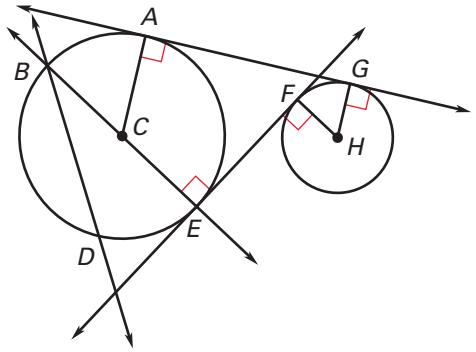
e) $\overset{\frown}{ACD}$

f) $\overset{\frown}{BC}$



Home Work

State the best term for the given figure in the diagram.



1. $\overleftrightarrow{FE}$

2. $\overline{HG}$

3. $\overline{DB}$

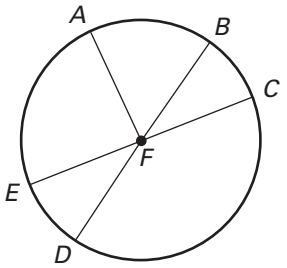
4. C

5. $\overline{BE}$

6. $\overleftrightarrow{DB}$

Home Work

In $\odot F$, determine whether the given arc is a major arc, a min arc or a semi-circle.



7. $\overset{\frown}{AB}$

8. $\overset{\frown}{AE}$

9. $\overset{\frown}{EAC}$

10. $\overset{\frown}{ACD}$

11. $\overset{\frown}{CAD}$

12. $\overset{\frown}{DEB}$

13. $\overset{\frown}{BAE}$

14. $\overset{\frown}{DEC}$