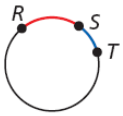
Geometry: 11-2 Notes

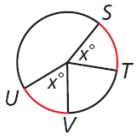
A _____ is an angle whose vertex is the center of a circle.

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

Arc	Measure	Diagram
A _____ is an arc whose points are on or in the interior of a central angle. Must be named by ____ points.	The measure of a minor arc is equal to the measure of its _____ _____.	
A _____ is an arc whose points are on or in the exterior of a central angle. Must be named by ____ points.	The measure of a major arc is equal to _____ minus the measure of its _____.	
If the endpoints of an arc lie on a diameter, the arc is a _____	The measure of a semicircle is equal to _____.	

_____ are arcs of the same circle that intersect at exactly one point. _____ and ____ are adjacent arcs.





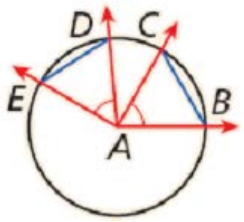
_____ are two arcs that have the same measure. In the figure, _____ ≅ _____

<u>Arc Addition Postulate</u>: The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs.

_____ are two arcs that have the same measure.

Theorem 11-2-2: In a circle, or congruent circles…

1. central angles _____ → chords _____
2. chords _____→ arcs _____
3. arcs _____ → central angles _____



Theorem 11-2-3: In a circle, if a radius (or diameter) is _____ to a chord, then it bisects the chord and its arc.

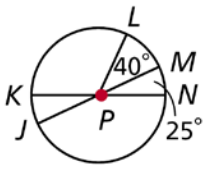
Theorem 11-2-4: In a circle, the _____ or a chord is a radius (or diameter).

Examples:

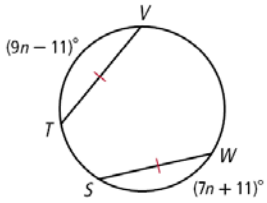
1. Find each measure

   a. Measure of arc JKL

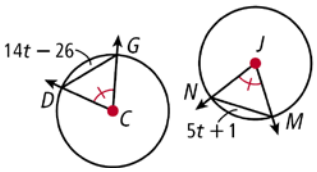
   b. measure of arc LJN



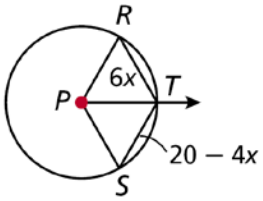
2. $\overline{TV} \cong \overline{WS}$. Find measure of arc WS.



3. Circle C ≅ circle J and m∠GCD ≅ m∠NJM. Find NM.



4. Ray PT bisects ∠RPS. Find RT.



5. Find NP.