

# Arcs

# Questions

title

Feb 9-8:19 AM

Central angle—an angle whose vertex is the center of a circle

Arc—part or a portion of a circle

- Minor arc—measures less than  $180^\circ$
- Major arc—measures between  $180^\circ$  and  $360^\circ$
- Semicircle—measures  $180^\circ$ 
  - ◆ a diameter divides a circle into two semicircles

### Naming Arcs

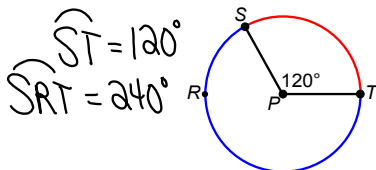
- Minor arcs are named by their endpoints.
- Major arcs and semicircles are named by their endpoints and by a point on the arc.

arcs

naming arcs

**Measuring Arcs**

- The measure of a whole circle is  $360^\circ$ .
- The measure of a minor arc is the measure of its central angle.
- The measure of a semicircle is  $180^\circ$ .
- The measure of a major arc is the difference between  $360^\circ$  and the measure of its associated minor arc.

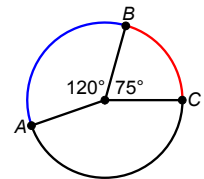


measuring arcs

Adjacent arcs—two arcs of the same circle with a common endpoint

**Arc Addition Postulate**

The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs.

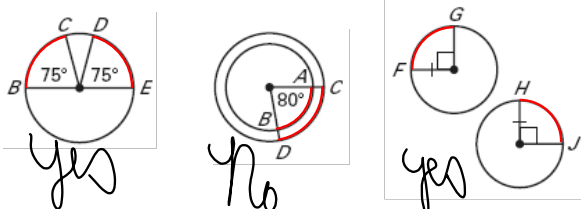


adjacent arcs

Congruent circles—two circles that have the same radius

Congruent arcs—two arcs of a circle or congruent circles that have the same measure

Tell whether the red arcs are congruent.



congruent arcs

**Conclusion**

1. What is an arc? *part of a circle (circumference)*
2. Name the ways to name an arc.  
*minor arc - less 180° AB CD E*  
*major arc - 180 to 360*  
*Semicircle - 180 FH I*
3. What is the Arc Addition Theorem?  
*Add 2 adjacent arcs = whole arc*
4. How do you tell if arcs are congruent?  
*Same radius and same central angle*
5. Questions

**Assignment**

**Arc Wkst**

Feb 8-3:19 PM