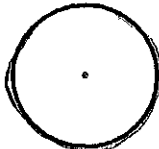
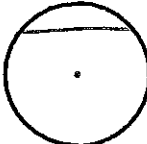
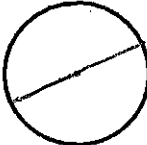
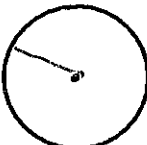
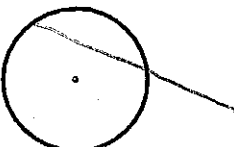

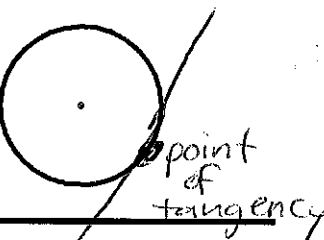


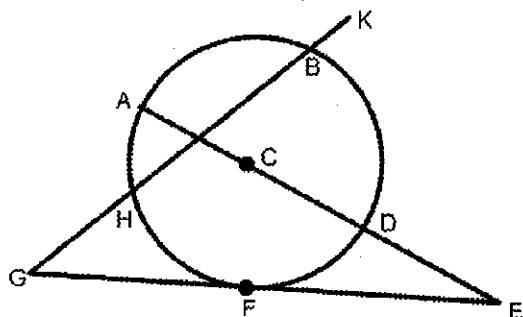
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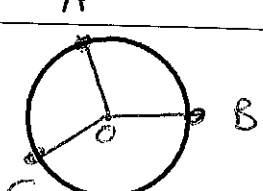
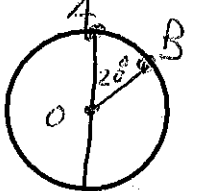
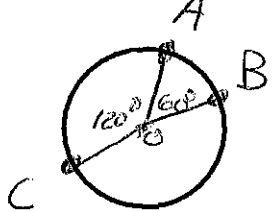
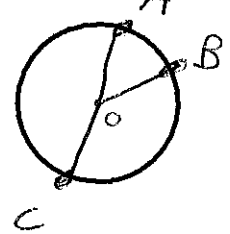
Vocabulary, Central Angles & Inscribed Angles

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 center	
Radius	distance from the center to point on circle	
Secant	a line that intersects the circle at <u>exactly TWO</u> points	
Tangent	a line that intersects the circle exactly ONE time	
Point of Tangency	where the tangent line intersects the circle	

EXAMPLE 1: 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} = chord, diameter
- b. \overline{CD} = radius
- c. \overline{EG} = tangent
- d. \overline{HB} = chord
- e. \overline{FB} = None
- f. \overline{FE} = tangent
- g. \overline{FE} = tangent

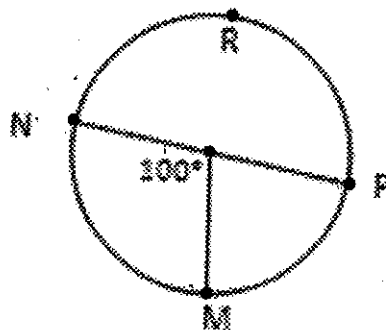
<p>Central Angle: an angle whose vertex is the center of a circle</p>	<p>$\angle AOB$ $\angle AOC$ $\angle BOC$</p>	
<p>Minor Arc: part of a circle that measures less than 180°</p>	<p>$\widehat{AB} = 20^\circ$ because $\angle AOB$ is central \angle</p>	
<p>Major Arc: part of a circle that measures between 180° and 360° use <u>3 letters</u></p>	<p>$\widehat{ABC} = 240^\circ$ $\widehat{ACB} = 300^\circ$</p>	
<p>Semicircle: an arc with endpoints that are the endpoints of a diameter of a circle. The measure of a semicircle is 180° use <u>3 letters</u></p>	<p>$\widehat{ABC} = 180^\circ$</p>	

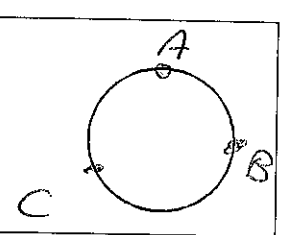
BASIC REVIEW:

- A circle has 360°
- A semicircle has 180°
- Vertical angles are congruent
- Linear pairs are supplementary

EXAMPLE 1: Finding measures of each arc of circle R. (NP is a diameter)

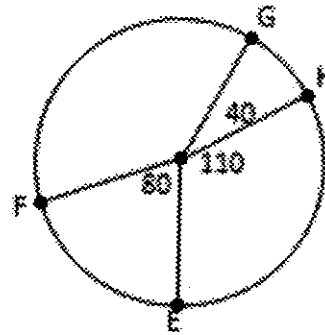
- a. \widehat{MN} 100°
- b. \widehat{MPN} $360^\circ - 100^\circ = 260^\circ$
- c. \widehat{PMN} $180^\circ \leftarrow$ semi circle
- d. \widehat{PM} $180^\circ - 100^\circ = 80^\circ$

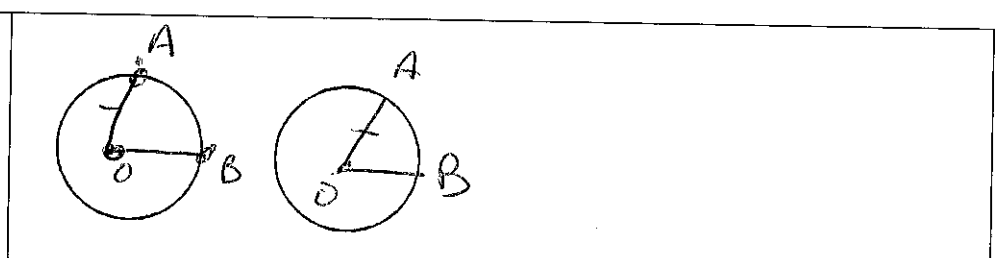
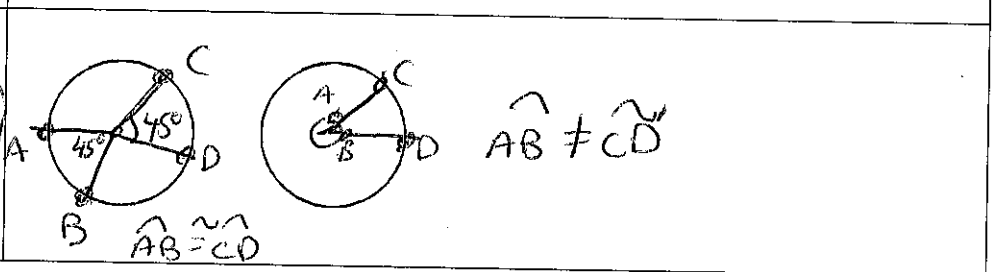


<p>Arc Addition Postulate The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs</p>	$m\widehat{ABC} = m\widehat{AB} + m\widehat{BC}$	
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EXAMPLE 2: Finding the measures of Arcs

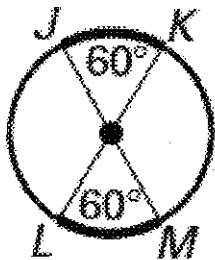
- a. \widehat{GE} ← Why not $> 180^\circ$? 150°
- b. \widehat{GEF} $40^\circ + 110^\circ + 80^\circ = 230^\circ$
- c. \widehat{GF} $360^\circ - 230^\circ = 130^\circ$
- d. \widehat{FHE} $360^\circ - 80^\circ = 280^\circ$



<p>Congruent Circles: Two circles that have the same radius.</p>	
<p>Congruent Arcs: Two arcs that have the same measure. They are part of the same circle or congruent circles</p>	

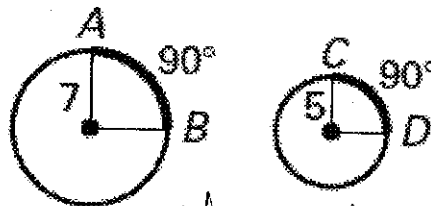
EXAMPLE 3: Tell whether the highlighted arcs are congruent. Explain why or why not.

a.



Yes, Same circle

b.



No, not same or congruent circles