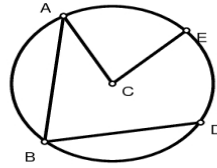


12-3 Study Guide – Inscribed Angles

- ❖ An angle is inscribed if its vertex is on the circle and its sides contain chords of the circle.

\angle _____ is an inscribed angle.

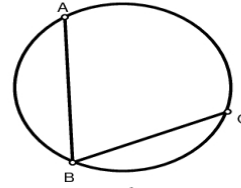


- ❖ If an angle is inscribed in a circle, then the measure of the angle equals one-half the measure of its intercepted arc.

$\angle ABC$ intercepts _____

If $m\widehat{AC} = 100^\circ$ then $m\angle ABC =$ _____.

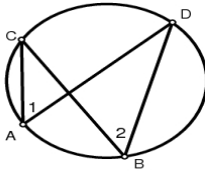
If $m\angle ABC = 70^\circ$, then $m\widehat{AC} =$ _____



- ❖ If two inscribed angles of a circle or congruent circles intercept congruent arcs or the same arc, then the angles are congruent.

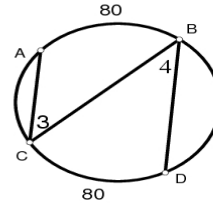
$\angle 1$ intercepts _____

$\angle 2$ intercepts _____ so _____

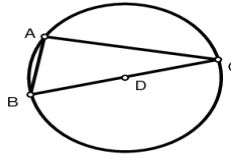


$\angle 3$ intercepts _____; $\angle 4$ intercepts _____

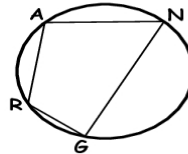
Since $m\widehat{AB} = m\widehat{CD}$, _____



- ❖ If an inscribed angle of a circle intercepts a semicircle, then the angle is a right angle.



- ❖ The opposite angles of a quadrilateral inscribed in a circle are supplementary.



- ❖ The measure of an angle formed by a tangent and a chord is half the measure of the intercepted arc.

$$m\angle C = \frac{1}{2} m\widehat{BDC}$$

