

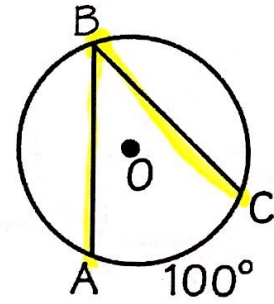
**Geometry**  
**Inscribed Angles**

Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**More Arc Measures**

An inscribed angle is an angle with its vertex "on" the circle, formed by two intersecting chords.

angle name:  $\angle ABC$



The measure of an inscribed angle is equal to

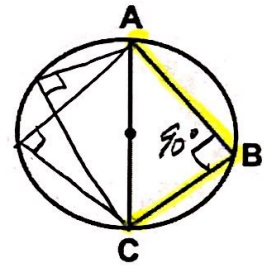
half the measure of the corresponding intercepted arc.

Formula:  $\frac{1}{2} m \text{ Arc}$   
 $m\angle ABC = \frac{1}{2} (100^\circ) = 50^\circ$

**Special Situation #1**

An angle inscribed in a semicircle is a right angle.

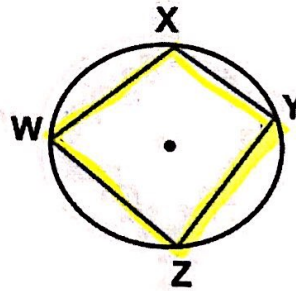
$m\angle ABC = \underline{90^\circ}$



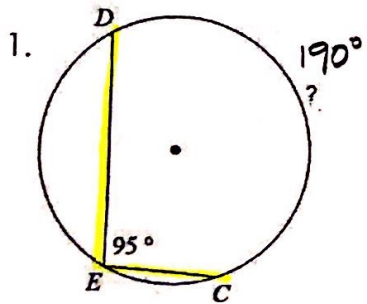
**Special Situation #2**

If a quadrilateral is inscribed in a circle, then its opposite angles are Supplementary.

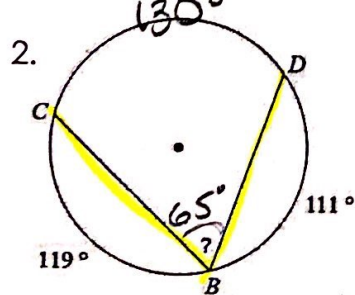
$m\angle X + m\angle Z = \underline{180^\circ}$   
 $m\angle W + m\angle Y = \underline{180^\circ}$



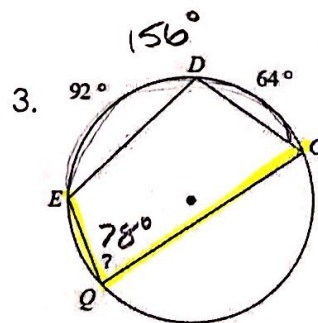
**Quick Problems: Find the missing value.**



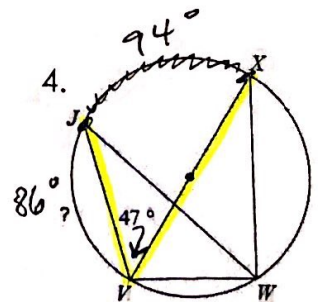
$2(95^\circ) = 190^\circ$



$360 - (119^\circ + 111^\circ)$   
 $360 - 230$   
 $130^\circ$   
 $\frac{130^\circ}{2} = 65^\circ$



$92^\circ + 64^\circ = 156^\circ$   
 $\frac{156^\circ}{2} = 78^\circ$



$47^\circ \cdot 2 = 94^\circ$   
 $180 - 94^\circ = 86^\circ$