



- I can find angle measures in polygons.

*In regular polygons....*

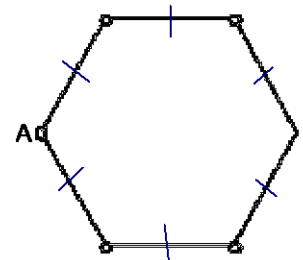
- the measure of each interior angle can be found using the formula  $\frac{(n-2) \cdot 180^\circ}{n}$
- the measure of each exterior angle can be found using the formula  $\frac{360^\circ}{n}$

Ex 1: Find the measure of each interior angle of the regular polygon listed below.

a. pentagon

b. nonagon

c.



Ex 2: You are given the measure of each exterior angle of a regular n-gon. Find the value of n.

a.  $60^\circ$

b.  $45^\circ$

c.  $30^\circ$

Ex 3: You are given the measure of each interior angle of a regular  $n$ -gon. Find the value of  $n$ .

a.  $90^\circ$

b.  $108^\circ$

c.  $144^\circ$

Ex 4: If you were designing a sign for a new building, would it be possible to make a sign that is a regular polygon with each angle having a measure of:

a.  $160^\circ$

b.  $115^\circ$