7-1 SOL Worksheet **Name:** _____

Important Facts:

1) **Regular polygons have all sides and all angles equal; irregular don't**
2) **An exterior angle and an interior angle always form a linear pair – supplementary (add to 180)**
3) **Sum of interior angles formula:**
   $S = (n - 2) \times 180$; **where n is the number of sides**
4) **Sum of exterior angles always equals 360**
5) **To figure out how many sides a figure has, use formula:**
   n = 360 / (Ext angle)

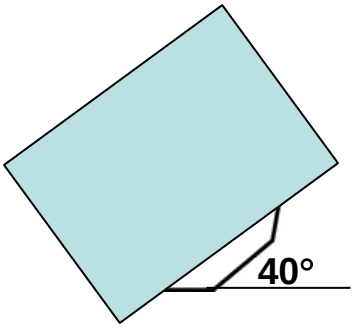
Fill in the following:

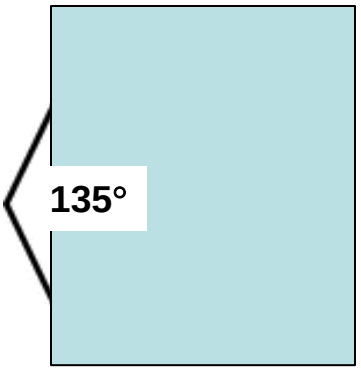
1) **A polygon that has *no* sides and angles equal is called _____.**
2) **Exterior and Interior angles form a _____ _____.**
3) **Sum of interior angles formula: _____**
4) **Formula for Number of sides is equal to _____**

Fill in the following table:

Nr Sides	Name	Sum of Int ∠	Sum of Ext ∠	One Int ∠	One Ext ∠
3		180		60	
4			360	90	
	Pentagon	540			72
6				120	
	Heptagon				51.43
8					45
9				140	
	Decagon			144	
	Dodecagon	1800		150	
			360		24
					20
			360		18

Find the number of *sides* in the covered figure:





Find the *sum of interior angles* for the following polygons:

30-gon

24-gon

Find the measure of *one interior angle* in the figure

15-gon

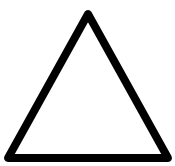
18-gon

Find the measure of *one exterior angle* in the figure

30-gon

24-gon

Find the *sum of exterior angles* for the following polygons:



24-gon