Directions: Draw each polygon (either on Geometers Sketch Pad or on paper). Complete the chart below as you work through each shape and determine the sum of the interior angles in each polygon.				
Name of	Number of sides	Number of	Number of	Sum of the
Polygon	(n)	triangles in the	degrees in one	interior angles
		polygon	triangle	
Triangle				
Quadrilateral				
Pentagon				
Hexagon				
Heptagon				
Octagon				

Objective: Discover the relationship between the number of sides in a polygon and its angle sum

Name:

Discover a relationship

using geometers sketch pad.

swei	the following questions:
1.	Did you notice any patterns as you were completing your table? What patterns did you notice?
2.	Describe the relationship between the number of triangles that can be formed in each polygon and the number of sides that polygon has.
3.	Use this relationship you discovered to decide the sum of the interior angles for the following polygons:
a.	8 sided polygon
b.	10 sided polygon
c.	20 sided polygon

When you and your partner have finished filling in your table, compare with another group and