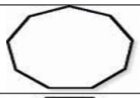
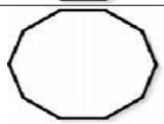
Name: Class: Date:

Sum of Interior Angles of Polygons Worksheet

Directions: The sum of interior angles of a triangle is 180º.

- Fix one vertex and make triangles by connecting to vertices of the polygon.
- Generate a rule to find the sum of interior angles of any polygon

Name of polygon	Figure	Number of sides	Number of triangles	Sum of interior angles
A Triangle		3		180
A Quadrilateral				
A Pentagon				
A Hexagon				
A Heptagon				
A Octagon				
A Nonagon				
A Decagon				
n-sided	xxxxxx			

Write a rule to find the sum of interior angles for any polygon:_____

Exercise: Using the rule above, find the sum of interior angles of the given polygon

1. A quadrilateral _____
2. A pentagon _____
3. An octagon _____
4. A polygon with 11 sides _____
5. A polygon with 15 sides _____