

Name:






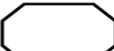


Class:

Date:

### Sum of Interior Angles of Polygons Worksheet

Directions: The sum of interior angles of a triangle is  $180^\circ$ .

- 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 \_\_\_\_\_