

Sum of interior angles of a polygon:

Find the sum of the interior angles of a plane polygon.

- 1. Find the sum of the interior angles of a pentagon**
- 2. Find the sum of the interior angles of a hexagon (6 sides)**
- 3. Find the sum of the interior angles of an octagon (8 sides)**

(Hints): Form triangles in the interior of the polygons by choosing ONE vertex and drawing diagonals to the other vertices. Notice the triangles formed. What is the sum of the angles of a TRIANGLE? How many triangles are formed?

- 4. Using the patterns you should have noticed in probs. 1-3 , form a simple formula for the sum of the interior angles where N is the number of sides of the polygon.**