Name_____ Date_____

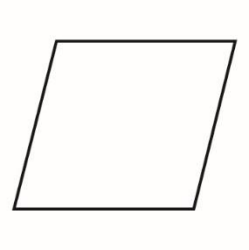
Measurement
Unit 1 Line Master 7a

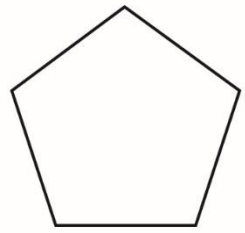
Exploring Angles in Polygons

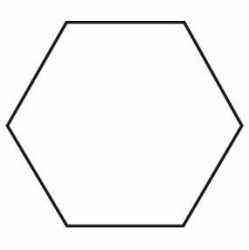
Part A:

- Measure to determine the sum of the interior angles of each of these regular polygons.
- Record your measurements and the sums of the interior angles.

Do you notice any patterns or regularities? Explain.







Name_____ Date_____

Measurement
Unit 1 Line Master 7b

Exploring Angles in Polygons (cont'd)

Part B:

- Decompose each of the shapes into triangles.
- The vertices of the triangles should coincide with the vertices of the polygon (i.e., no vertex of a triangle should be inside the polygon).
- How might you use what you know about the interior angles of a triangle to determine the sum of the interior angles of these polygons?

If *n* represents the number of sides, write a formula you could use to determine the sum of the interior angles of any polygon.