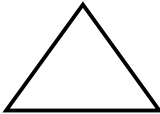
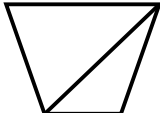


**GRADE 12 ESSENTIAL
GEOMETRY
PROPERTIES OF POLYGONS
ANGLE SUM THEOREM**

Name: _____

Date: _____

1. POLYGON: (Definition) A closed figure formed by three or more line segments
2. Complete the following table. Construct the indicated polygon and complete the table. You will need some scrap paper to construct large polygons, a protractor, and a straight edge.

Nbr of Sides of Polygon (n)	n - 2	Small Diagram or Sketch	Number of Triangles	Sum of interior Angles of the Polygon
3	1		1	180°
4	2		2	
5				
6				
8				

Properties of Polygons – Formula Interior Angle Sum. For any polygon with n sides, the sum of the interior angles is

$$(n-2)*180^\circ$$

Practice. Complete the following table:

Polygon	$n - 2$	Sum of Interior Angles
Rhombus (quadrilateral)		
9 sided polygon		
11 Sided Polygon (a loonie)		
30 sided polygon		
Octagon		
Pentagon		