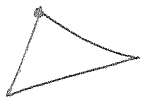
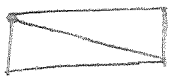
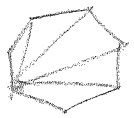
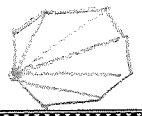
Exploring Regular Polygons
Geometry

6-1 NOTES

Name FERRINGTON
hour _____

Name of Polygon	Number of Sides	Picture	Sum of Exterior ∠s	Number of Diagonals from one vertex	Number of Triangles	Sum of Interior ∠s	Measure of <u>each</u> interior ∠ for a regular polygon	Half the measure of one interior ∠ for a regular polygon
Triangle	3		360	0	1	180	60	30
Quadrilateral	4		360	1	2	360	90	45
Pentagon	5		360	2	3	540	108	54
Hexagon	6		360	3	4	720	120	60
Heptagon	7		360	4	5	900	128.57	64.29
Octagon	8		360	5	6	1080	135	67.5
***n*-gon Rule**	***n***		360	$n-3$	$n-2$	$180(n-2)$	$\frac{180(n-2)}{n}$	$\frac{180(n-2)}{2n}$

Mrs. Karen Gardner

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Using your own words, summarize each of the seven *n*-gon Rules derived on the previous page. The 1st n-gon rule is done for you.

Number of Sides: n represents the number of sides that the regular polygon has. For example, a hexagon is a polygon that has six sides.

Sum of Exterior ∠s:

Number of Diagonals from one vertex:

Number of Triangles:

Sum of Interior ∠s:

Measure of <u>each</u> interior ∠ for a regular polygon:

Half the measure of one interior ∠ for a regular polygon: