

Polygon Sum Conjecture

Name of Polygon	Number of Sides	Number of Triangles $N-2$	Sum of Interior Angles $(N-2) * 180$	Do the Math	Measure of Angles in Regular Polygon
Triangle	3	1	180°	$(3-2) * 180 = 180$	180°
Quadrilateral	4	2	360°	$(4-2) * 180$	360°
Pentagon	5	3	540°	$(5-2) * 180$	540°
Hexagon	6	4	720°	$(6-2) * 180$	720°
Heptagon	7	5	900°	$(7-2) * 180$	900°
Octagon	8	6	1080°	$(8-2) * 180$	1080°
Nonagon	9	7	1260°	$(9-2) * 180$	1260°
Decagon	10	8	1440°	$(10-2) * 180$	1440°
Undecagon	11	9	1620°	$(11-2) * 180$	1620°

of triangles (when you draw all diagonals from 1 vertex) = $N-2$ where $n = \#$ of sides