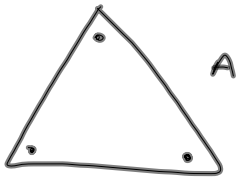
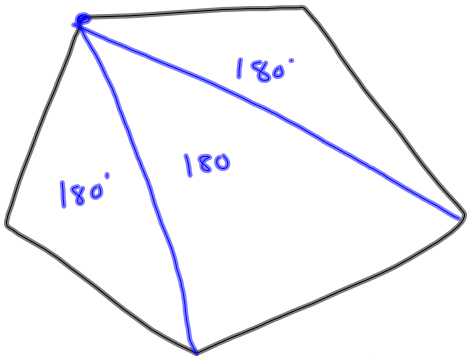
1-14-14

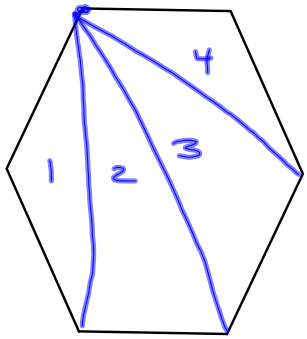
1st Geo



All ∘ add up to 180°



$3 \cdot 180^\circ = 540^\circ$



$4 \cdot 180^\circ$

720°

Sum of all the angles in a polygon $= (n-2) \cdot 180^\circ$

↑ tells you how many triangles are in polygon

How many degrees is in a decagon?

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

$(10-2) \cdot 180^\circ$

$8 \cdot 180^\circ$

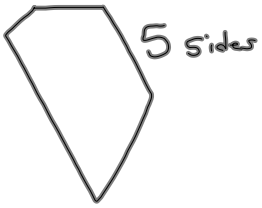
1440°

polygon vs regular polygon

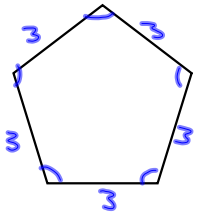
↓

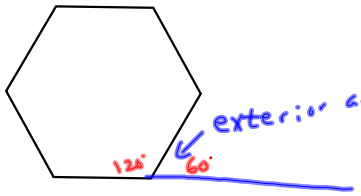
all sides = in length and all angles are =.

pentagon



regular





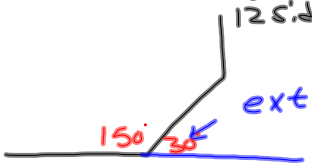
$$\text{exterior angle} = \frac{360}{\text{number of sides}}$$

$$\text{ext}\angle = \frac{360}{6} = 60$$

What is the interior ∠ of a regular dodecagon? 150°

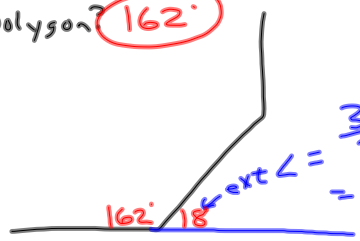
↓

12 sides



$$\text{ext}\angle = \frac{360}{12} = 30^\circ$$

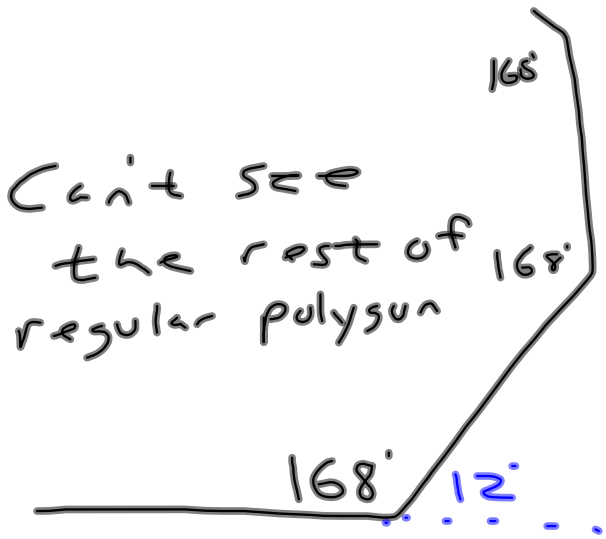
What is the interior angle of a regular 20-sided polygon? 162°



$$\text{ext}\angle = \frac{360}{20} = 18^\circ$$

$$\text{Exterior } \angle = \frac{360}{\#\text{ of sides}}$$

$$\#\text{ of sides} = \frac{360}{\text{ext. } \angle}$$



Can't see the rest of regular polygon

$$\#\text{ sides} = \frac{360}{\text{ext. } \angle}$$

$$\#\text{ sides} = \frac{360}{12}$$

$$\#\text{ sides} = 30$$