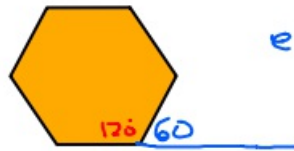


12-10-19 2nd Geo

- ① How many degrees is inside an octagon?

$$\begin{aligned}(n-2) \cdot 180^\circ \\ (8-2) \cdot 180^\circ \\ 1080^\circ\end{aligned}$$

- ② What is the exterior angle to the hexagon below?



$$\begin{aligned}\text{exterior } \angle &= \frac{360}{n} \\ &= \frac{360}{6}\end{aligned}$$

- ③ What is the interior angle of a regular decagon?

$$\begin{aligned}\text{ext } \angle &= \frac{360}{n} \\ &= \frac{360}{10} \\ &= 36\end{aligned}$$

- ④ If the exterior angle is 15° , how many sides does the regular polygon have?

$$\text{exterior } \angle = \frac{360}{n}$$

$$n = \frac{360}{\text{ext. } \angle}$$

$$n = \frac{360}{15}$$

$$n = 24$$

- ⑤ The measure of the interior angle of a regular polygon is 108° . How many sides does the polygon have?

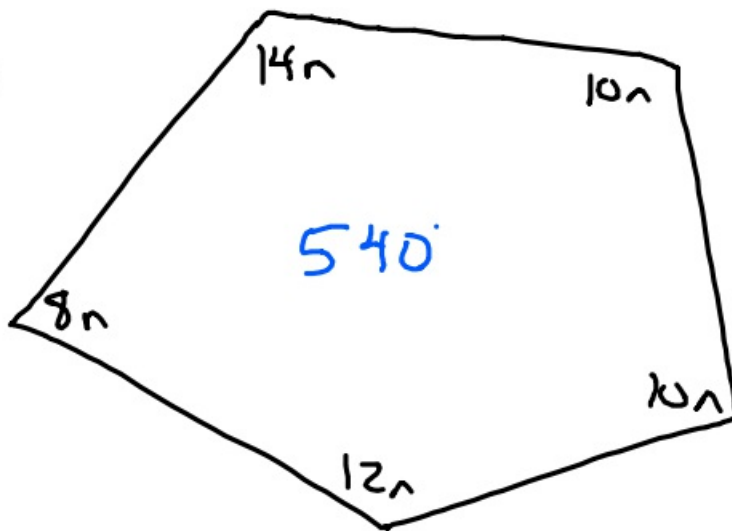


$$n = \frac{360}{\text{ext. } \angle}$$

$$n = \frac{360}{72}$$

$$n = 5$$

⑥



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

Find n .

$$8n + 12n + 10n + 10n + 14n = 540^\circ$$

$$\frac{54n}{54} = \frac{540}{54}$$

$$n = 10$$