

Polygon Interior Angles Theorem:

To find the sum of the interior angles of a polygon, use the formula $(n - 2) \cdot 180$

$n = \# \text{ of sides}$

Find the sum of the interior angles of the following:

1. pentagon

$$\begin{aligned} & \downarrow \\ & (5-2) \cdot 180 \\ & 3 \cdot 180 \\ & \underline{540} \end{aligned}$$

2. hexagon

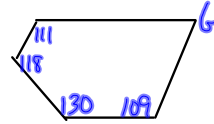
$$\begin{aligned} & (6-2) \cdot 180 \\ & 4 \cdot 180 \\ & \underline{720} \end{aligned}$$

3. octagon

$$\begin{aligned} & (8-2) \cdot 180 \\ & 6 \cdot 180 \\ & \underline{1080} \end{aligned}$$

Mar 15-7:47 AM

918 #1.



$$\begin{aligned} & 540 \\ & - 468 \\ & \hline & 72 \end{aligned}$$

$$\begin{aligned} & (n-2) \cdot 180 \\ & (5-2) \cdot 180 \\ & 3 \cdot 180 \\ & \underline{540} \\ & 111 + 118 + 130 + 109 \\ & \hline & 468 \end{aligned}$$

Mar 15-8:37 AM

To find the measure of each interior angle of a regular polygon, use the formula

$$\frac{(n - 2) \cdot 180}{n}$$

Find the measure of each interior angle of the following:

1. regular octagon

$$\frac{(8-2) \cdot 180}{8} = 135^\circ$$

2. regular decagon

$$\frac{(10-2) \cdot 180}{10} = 144^\circ$$

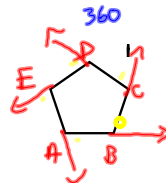
Mar 15-8:03 AM

Polygon Exterior Angle Sum Theorem:

The sum of the exterior angles of a polygon = 360

Find the sum of the measures of the exterior angles of the following polygons:

1. pentagon



2. octagon

360

3. decagon

360

$$\begin{aligned} & 3x + 297 + 36 \\ & 3x = 63 \\ & \underline{x = 21} \end{aligned}$$

p420 Top #8.

$$\begin{aligned} & 70 + 3x + 75 + 65 + 2x = 360 \\ & 5x + 210 = 360 \\ & 5x = 150 \\ & \underline{x = 30} \end{aligned}$$

Mar 15-8:06 AM

* To find the measure of each exterior angle of a regular polygon, use:

$$\frac{360}{n}$$

ex Find the measure of each exterior angle of a hexagon $\rightarrow n=6$

$$\frac{360}{6} = 60^\circ$$

Mar 15-8:08 AM

~~P421-423~~

8-29, 31-34, 39-48

$| -7 | = 7$

$| 5 | = 5$

Mar 15-8:49 AM