

Accuplacer Study Modules

TOPIC: Find the Sum of Interior Angles of a Polygon

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Find the Measure of One Interior Angle of a Regular Polygon

Steps:

- 1) Determine the number of sides of the polygon- this is n .
- 2) Substitute n into the formula $d = 180(n - 2)$, where d is the total number of degrees in the polygon.
- 3) Use order of operations to determine the value of d .

Enrichment: What is you were asked to find the measure of one interior angle of a regular polygon?

- 1) Use your d (solution from step 3) and divide it by n (# of sides of the polygon).

Example: What is the sum of the interior angles of a decagon.


$$d = 180(n - 2)$$

$$d = 180(10 - 2)$$

$$d = (8)180$$

$$d = 1440$$

Practice:

<p>1. Find the sum of the interior angles of the triangle below.</p> 	<p>2. Determine the sum of the interior angles of a pentagon.</p>
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3. What is the measure of one interior angle of a regular hexagon.

4. Determine the measure of one interior angle of a regular octagon.