

Grade 8

Topic: Angles of Polygons

Instructions

Use the formula $(n-2) \times 180^{\circ}$ to find the sum of interior angles. Show all steps clearly.

Practice Problems

- 1. Find the sum of the interior angles of a pentagon.
- 2. Find each interior angle of a regular hexagon.
- 3. Calculate the sum of the interior angles of an octagon.
- 4. A regular decagon has 10 sides. Find the measure of each interior angle.
- 5. If each interior angle of a regular polygon is 150°, how many sides does it have?

Word Problems with Shapes

1. A regular 12-sided polygon is drawn below. Find the sum of its interior angles.



2. The sum of the interior angles of a polygon is 1440°. How many sides does it have?



3. A regular polygon has each interior angle equal to 135° . Find the number of sides.



Challenge Question

1. A polygon has twice as many diagonals as sides. Find the number of sides.

Multiple-Choice Questions

- 1. What is the sum of the interior angles of a hexagon?
 - A. 720°
 - B. 540°
 - C. 900°
 - D. 1080°
- 2. How many sides does a polygon have if its interior angle is 120° ?
 - A. 5
 - B. 6
 - C. 8
 - D. 7

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