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| **Solving Problems Involving Angle Properties** | | | |
| Uses angle properties to determine the sum of the interior angles of polygons  I can decompose a polygon into triangles, then multiply the number of triangles by 180° to determine the sum of the interior angles. | Identifies the relationship between the number of triangles that compose a polygon and the number of sides  There is a pattern: sum of the interior angles increases by 180° for each additional side. The sum of the interior angles of *n*-sided polygons equals (*n* – 2) × 180°. | Uses the sum of the interior angles formula to determine the sum of the angles in a polygon  Determine the sum of the interior angles of a heptagon.  Use the formula with *n* = 7.  Sum of interior angles  = (7 – 2) × 180°  = 900° | Uses the sum of the interior angles of *n*-sided polygons to solve problems  Determine the measure of the interior angle of a regular nonagon (9-sided polygon).  Sum of interior angles  = (9 – 2) × 180°  = 1260°  1260° ÷ 9 = 140° |
| **Observations/Documentation** | | | |
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