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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 sidesThere 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 polygonDetermine 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 problemsDetermine 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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