Geometric Properties   
and Relationships

**Geometry**

**Unit 1 Line Master 7**

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| **Angles with Parallel and Intersecting Lines**   * Corresponding angles are congruent. * Alternate angles are congruent. * Opposite angles are congruent. * A diagram of a diagram of opposite and opposite    Description automatically generatedCo-interior angles are supplementary. | **Sum of Interior Angles in a Polygon**  A polygon of *n* sides can be divided into  (*n* – 2) triangles.  A triangle with points and lines  Description automatically generatedSo, the sum of the interior angles is  (*n* – 2) × 180°. |
| **Sum of Exterior Angles in a Polygon**  The sum of the exterior angles of a polygon is 360°.  A diagram of a triangle and a triangle  Description automatically generated with medium confidence | **Side Lengths of a Triangle**  The sum of any two sides of a triangle is always greater than the length of the third side.  A triangle with letters and numbers  Description automatically generated |
| **Angles and Side Lengths in a Triangle**  The relative lengths of the sides are the same as the relative measures of the angles to which they are opposite.  A triangle with a point and numbers  Description automatically generated | **Perpendicular Bisector in a Right Triangle**  A perpendicular bisector of a leg in a right triangle bisects the hypotenuse.  A line with numbers and points  Description automatically generated with medium confidence |
| **Angle Bisector in a Triangle**  **A triangle with a line drawn on it  Description automatically generated** | **Median of a Triangle**  **A triangle with lines and points  Description automatically generated** |