Math 6+: Geometry
Lines, Angles, Polygons, and Coordinate Geometry

Relationships Involving Lines, Angles, and Polygons

Students	Learning Continuum Statements:
Students:	**RIT 191-200:** • Identifies diagonals of polygons
Students:	**RIT 201-210:** • *No Skills Listed*
Students:	**RIT 211-220:** • Applies the formula for the sum of the interior angles of a polygon • Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles
Students:	**RIT 221-230:** • Applies properties of isosceles triangles to determine the measure of an unknown angle • Applies the formula for the sum of the interior angles of a polygon • Applies the Triangle Angle-Sum Theorem to determine the measure of an unknown angle • Calculates unknown angle measures using the properties of a rhombus • Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles • Determines the number of diagonals that can be drawn from one vertex in a polygon • Recognizes that the sum of the interior angles of a triangle is 180 degrees • Solves problems involving parallel lines cut by a transversal
Students:	**RIT 231-240:** • Applies properties of isosceles triangles to determine the measure of an unknown angle • Applies properties of the median of an isosceles triangle • Applies the formula for the sum of the interior angles of a polygon • Applies the Triangle Angle-Sum Theorem to determine the measure of an unknown angle • Calculates unknown angle measures using the properties of a rhombus • Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles • Defines complementary and supplementary angles • Recognizes that the sum of the interior angles of a triangle is 180 degrees • Solves problems by applying multiple properties of angles, including interior and exterior angles of triangles; complementary, supplementary, and vertical angles; and angles created by perpendicular lines or parallel lines cut by a transversal • Solves problems involving parallel lines cut by a transversal

Students:	**RIT 241-250:** • Applies properties of isosceles triangles to determine the measure of an unknown angle • Applies the formula for the sum of the interior angles of a polygon • Applies the Triangle Angle-Sum Theorem to determine the measure of an unknown angle • Applies the Triangle Exterior Angle Theorem to determine the measure of an unknown angle • Applies the Triangle Inequality Theorem • Calculates unknown angle measures using the properties of a rhombus • Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles • Identifies complementary and supplementary angles • Identifies corresponding, alternate interior, and alternate exterior angles • Recognizes that the sum of the interior angles of a triangle is 180 degrees • Solves problems by applying multiple properties of angles, including interior and exterior angles of triangles; complementary, supplementary, and vertical angles; and angles created by perpendicular lines or parallel lines cut by a transversal • Solves problems involving parallel lines cut by a transversal
Students:	**RIT 251-260:** • Applies the formula for the measure of each exterior angle of a regular polygon • Applies the formula for the measure of each interior angle of a regular polygon • Applies the Triangle Inequality Theorem • Calculates unknown angle measures using the properties of complementary, supplementary, and vertical angles • Determines the conditions necessary to show that two lines are parallel • Identifies complementary and supplementary angles • Solves problems by applying multiple properties of angles, including interior and exterior angles of triangles; complementary, supplementary, and vertical angles; and angles created by perpendicular lines or parallel lines cut by a transversal • Solves problems involving parallel lines cut by a transversal
Students:	**RIT 261-270:** • Applies the Triangle Inequality Theorem • Defines the apothem of a regular polygon • Solves problems by applying multiple properties of angles, including interior and exterior angles of triangles; complementary, supplementary, and vertical angles; and angles created by perpendicular lines or parallel lines cut by a transversal
Students:	**RIT 271-280:** • Applies the Triangle Inequality Theorem • Identifies vertical angles