# Glossary

## Unit 4: Geometry

**Alternate Exterior Angles** Exterior angles formed by a transversal that are on opposite sides of the transversal.

**Alternate Interior Angles** Interior angles formed by a transversal that are on opposite sides of the transversal and inside the parallel lines.

**Complementary Angles** A pair of angles that sum to 90°.

**Congruent** Objects are congruent if they have the same size and shape.

**Converse** A statement formed by switching the premise and conclusion of another statement.

**Corresponding Angles** Angles on the same side of a transversal and on the same side of the lines the transversal crosses.

**Cosine Law** If in a triangle $a$, $b$, and $c$ are the side lengths and $A$ is the angle across from side $a$, then the cosine law states $a^2 = b^2 + c^2 - 2bc\cos A$.

**Cosine Ratio** The ratio of the adjacent side length to the hypotenuse length in a right triangle.

**Exterior Angles Formed by a Transversal** Angles formed between a transversal and the lines it crosses, on the outsides of the lines crossed.

**Exterior Angle of a Polygon** An angle formed by one side of a polygon and an extension of an adjacent side. An external angle is on the "outside" of a polygon.

**Interior Angles Formed by a Transversal** Angles formed between a transversal and the lines it crosses, on the insides of the lines crossed.

**Interior Angle of a Polygon** An angle formed by two sides of a polygon that share a vertex. An interior angle is on the "inside" of a polygon.

**Inverse Cosine** Denoted $\cos^{-1}$ and can be used to determine an unknown angle from a cosine ratio.

**Inverse Sine** Denoted $\sin^{-1}$ and can be used to determine an unknown angle from a sine ratio.

**Inverse Tangent** Denoted $\tan^{-1}$ and can be used to determine an unknown angle from a tangent ratio.

**Opposite Angles** Angles opposite each other that are formed when two lines cross.

**Parallel Lines** Lines that do not intersect. Parallel lines are the same distance apart for their entire length.

**Parallelogram** A quadrilateral with two pairs of parallel sides.

**Perpendicular Lines** Lines that meet at a right angle.

**Polygon** An enclosed two dimensional shape made of connected line segments.

**Pythagorean Theorem** $a^2 + b^2 = c^2$ , where $a$ and $b$ are legs and $c$ is the hypotenuse of a right triangle.

**Sine Law** If in a triangle $a$, $b$, and $c$ are the side lengths across from angles $A$, $B$, and $C$, respectively, the sine law states that $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$.

**Sine Ratio** The ratio of the opposite side length to the hypotenuse length in a right triangle.

**Supplementary Angles** A pair of angles that sum to 180°.

**Tangent Ratio** The ratio of the opposite side length to the adjacent side length in a right triangle.

**Transversal** A line that intersects a set of other lines.