## **Geometry Conjectures**

<u>Perpendicular Bisector Conjecture</u> – If a point is on the perpendicular bisector of a segment, then it is equal distance from the end points.

<u>Converse of the Perpendicular Bisector Conjecture</u> – If a point is equal distance from the endpoints of a segment, then it is on the perpendicular bisector of a segment.

<u>Angle Bisector Conjecture</u> – If a point is on the bisector of an angle, then it is equal distance from the sides of the angle.

<u>Linear Pair Conjecture</u> – If two angles form a linear pair, then the measures of the angles add up to 180°.

<u>Vertical Angles Conjecture</u> – If two angles are vertical angles, then they are congruent and have equal measures.

<u>Corresponding Angles Conjecture</u> – If two parallel lines are cut by a transversal, then corresponding angles are congruent.

<u>Alternate Interior Angles Conjecture</u> – If two parallel lines are cut by a transversal, then alternate interior angles are congruent.

<u>Alternate Exterior Angles Conjecture</u> – If two parallel lines are cut by a transversal. Then alternate exterior angles are congruent.

<u>Parallel Lines Conjecture</u> – If two parallel lines are cut by a transversal, then corresponding angles are congruent, alternate interior angles are congruent, and alternate exterior angles are congruent.

<u>Converse of the Parallel Lines Conjecture</u> – If two lines are cut by a transversal to form pairs of congruent corresponding angles, congruent alternate interior angles, or congruent alternate exterior angles, then the lines are parallel.