METHODS OF PROVING TRIANGLES CONGRUENT				
SSS	SAS	ASA	AAS	HL

Assumed from diagram. *Linear Pairs*	**Linear Pair Postulate** *If two angles form a linear pair, then they are supplementary.*
Vertical angles are congruent. *Hint: Look for a "bow tie."*	Right angles are congruent.
Definition of bisects (or trisects) *If a ray bisects an angle, then it divides the angle into two congruent angles.*	**Definition of perpendicular (⊥)** *If two lines are perpendicular, then they intersect and form right angles.*
Definition of midpoint *If a point is a midpoint of a segment, then it divides the segment into two congruent segments.*	Definition of ⊥ bisector *(If you're given this, then you're technically given perpendicular & bisects.)*
Reflexive *Use with common/shared sides and common/shared angles.*	**TRANSITIVE PROPERTY** *If angles (or segments) are congruent to the same (or congruent) angle (or segment), then they are congruent to each other.*
Two points determine a line *Use when drawing in an auxiliary line.*	**SUBSTITUTION** *(Do not use when proving congruence.)*
Congruent Supplements Theorem *If angles are supplementary to the same angle (or congruent angles), then they are congruent.*	Congruent Complements Theorem *If angles are complementary to the same angle (or congruent angles), then they are congruent.*
Segment Addition Property *If a segment (or congruent segments) is added to two congruent segments, the sums are congruent.*	Angle Addition Property *If an angle (or congruent angles) is added to two congruent angles, the sums are congruent.*
Segment Subtraction Property *If a segment (or congruent segments) is subtracted from two congruent segments, the differences are congruent.*	**Angle Subtraction Property** *If an angle (or congruent angles) is subtracted from two congruent angles, the differences are congruent.*

ALTERNATE INTERIOR ANGLES THEOREM *If two parallel lines are cut by a transversal, each pair of alternate interior angles are congruent.*	**SAME-SIDE INTERIOR ANGLES THEOREM** *If two parallel lines are cut by a transversal, each pair of same-side interior angles are supplementary.*
Corresponding Angles Postulate *If two parallel lines are cut by a transversal, each pair of corresponding angles are congruent.*	**Alternate Exterior Angles Theorem** *If two parallel lines are cut by a transversal, each pair of alternate exterior angles are congruent.*
CPCTC *Must prove triangles to be congruent BEFORE using CPCTC.*	**All radii are congruent.** *Use when you're given a circle.*
Definition of median *If a segment is a median of a triangle, then it divides the opposite side into two congruent segments.*	**Definition of altitude** *If a segment is an altitude of a triangle, then it forms right angles with the side to which it is drawn.*
Definition of isosceles triangle *If at least two sides of a triangle are congruent, then the triangle is an isosceles triangle.*	**Definition of right triangle** *If a triangle has a right angle, then it is a right triangle.*
Isosceles Triangle Base Angle Theorem *If two sides of a triangle are congruent, then the angles opposite these sides are congruent.*	**Definition of equilateral triangle** *If all three sides of a triangle are congruent, then the triangle is an equilateral triangle.*
Isosceles Triangle Base Angle Converse Theorem *If two angles of a triangle are congruent, then the sides opposite these angles are congruent.*	**Isosceles Triangle Altitude to Congruent Sides Theorem** *In an isosceles triangle, the altitudes to the congruent sides are congruent.*
Isosceles Triangle Perpendicular Bisector Theorem *The altitude from the vertex angle of an isosceles triangle is the perpendicular bisector of the base.*	**Isosceles Triangle Base Theorem** *The altitude to the base of an isosceles triangle bisects the base.*
Isosceles Triangle Bisector to Congruent Sides Theorem *In an isosceles triangle, the angle bisectors to the congruent sides are congruent.*	**Isosceles Triangle Vertex Angle Theorem** *The altitude to the base of an isosceles triangle bisects the vertex angle.*