Definition of congruent angles *Angles w/the same measure are congruent.*	definition of right angle *An angle with a measure of 90° is a right angle.*
Assumed from diagram. *Straight angles, linear pairs, vertical angles*	Right angles are congruent.
Straight angles are congruent.	Angle Addition Postulate
Vertical angles are congruent.	**TRANSITIVE PROPERTY** *If angles (or segments) are congruent to the same (or congruent) angle (or segment), then they are congruent to each other.*
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 complementary angles** *If the sum of two angles is a right angle, then they are complementary.*
Definition of supplementary angles *If the sum of two angles is a straight angle, then they are supplementary.*	LINEAR PAIR POSTULATE *If two angles form a linear pair, then they are supplementary.*
Reflexive	Substitution
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.

Converse of the Alternate Interior Angles Theorem

If two lines and a transversal form alternate interior angles that are congruent, then the two lines are parallel.

Corresponding Angles Postulate

If two parallel lines are cut by a transversal, each pair of corresponding angles are congruent.

Converse of the Corresponding Angles Postulate

If two lines and a transversal form corresponding angles that are congruent, then the two lines are parallel.

Same-Side Interior Angles Theorem

If two parallel lines are cut by a transversal, each pair of same-side interior angles are supplementary.

Converse of the Same-Side Interior Angles Theorem

If two lines and a transversal form same-side interior angles that are supplementary, then the two lines are parallel.

Alternate Exterior Angles Theorem

If two parallel lines are cut by a transversal, each pair of alternate exterior angles are congruent.

CONVERSE OF THE ALTERNATE EXTERIOR ANGLES THEOREM

If two lines and a transversal form alternate exterior angles that are congruent, then the two lines are parallel.

Same-Side Exterior Angles Theorem

If two parallel lines are cut by a transversal, each pair of same-side exterior angles are supplementary.

Converse of the Same-Side Exterior Angles Theorem

If two lines and a transversal form same-side exterior angles that are supplementary, then the two lines are parallel.