

FM Geometry Vocabulary/Properties/Postulates//Theorems for Chapter 2

Conditional Statements	If-Then Statements	Hypothesis
Conclusion	Converse	Counterexample Biconditional
Addition Property of Equality		Subtraction Property of Equality
Multiplication Property of Equality		Division Property of Equality
Distributive Property		Substitution Property of Equality
Reflexive Property of Equality		Reflexive Property of Congruence
Symmetric Property of Equality		Symmetric Property of Congruence
Transitive Property of Equality		Transitive Property of Congruence
Parts of a Proof	Reasons Used in a Proof	Complementary Angles
Supplementary Angles	Vertical Angles	Perpendicular

Angle Bisector Theorem #1: If \overline{BX} is the bisector of $\angle ABC$, then

$$m\angle ABX = \frac{1}{2}m\angle ABC, m\angle XBC = \frac{1}{2}m\angle ABC, \text{ and } m\angle ABX = m\angle XBC.$$

Vertical Angles Theorem: Vertical angles are congruent.

Right Angles Theorem: All right angles are congruent.

Thrm: Two lines are perpendicular if and only if they form congruent adjacent angles.

Thrm: If the exterior sides of two adjacent acute angles are perpendicular, then the angles are complementary.

Congruent Complements Theorem: If two angles are complements of the same or congruent angles, then the two angles are congruent.

Congruent Complements Converse: If two angles are congruent, then they are complementary to the same or congruent angles.

Congruent Supplements Theorem: If two angles are supplements of the same or congruent angles, then the two angles are congruent.

Congruent Supplements Converse: If two angles are congruent, then they are supplementary to the same or congruent angles.