Notes:	Geometry	Ch. 3	Parallel	&	Perp	endicul	ar I	lines
	•							

<u>3-1:</u> Identify Pairs of Lines and Angles

parallel lines:

parallel planes:

Angles formed by Transversals: corresponding angles skew lines:

transversal:

alternate interior angles

Name_____

alternate exterior angles

same side interior angles (consecutive interior)

same side exterior

3-2: Use Parallel Lines and Transversals

<u>Postulate 15:</u> Corresponding Angles Postulate

Theorem 3.1: Alternate Interior Angles Theorem

If two parallel lines are cut by a transversal, then the pairs of ______ angles are ______.

Theorem 3.2: Alternate Exterior Angles Theorem

If two parallel lines are cut by a transversal, then the pairs of _________ angles are _______.

Theorem 3.3: Same Side Interior Angles Theorem (Consecutive Interior)

3-3: Prove Lines are Parallel

Postulate 16: Corresponding Angles Converse

If two lines are cut by a transversal so the corresponding angles are ______, then the lines are ______.

Theorem 3.4: Alternate Interior Angles Converse

If two lines are cut by a transversal so the alternate interior angles are ______, then the lines are ______.

Theorem 3.5: Alternate Exterior Angles Converse

If two lines are cut by a transversal so the alternate exterior angels are ______, then the lines are ______.

 Theorem 3.6:
 Same Side Interior Angles Converse (Consecutive Interior)

 If two lines are cut by a transversal so the consecutive interior angles are ______, then the lines are ______.

3-6: Prove Theorems about Perpendicular Lines

Perpendicular Line Theorems:

Theorem 3.8: If two lines intersect to form a linear pair of congruent angles, then the angles are _____.

Theorem 3.9: If two lines are perpendicular, then they intersect to form four ______ angles.

Theorem 3.10: If two sides of two adjacent acute angles are perpendicular, then the angles are

<u>Theorem 3.11:</u> Perpendicular Transversal Theorem

Theorem 3.12: Lines Perpendicular to a Transversal Theorem

In a plane, if two lines are perpendicular to the same line, then they are ______ to each other.