

3.2**Notetaking with Vocabulary**

For use after Lesson 3.2

Theorems**Theorem 3.1 Corresponding Angles Theorem**

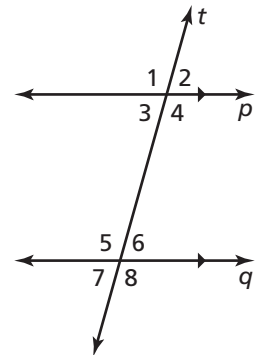
If two parallel lines are cut by a transversal, then the pairs of corresponding angles are congruent.

Examples In the diagram, $\angle 2 \cong \angle 6$ and $\angle 3 \cong \angle 7$.

Theorem 3.2 Alternate Interior Angles Theorem

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

Examples In the diagram, $\angle 3 \cong \angle 6$ and $\angle 4 \cong \angle 5$.

**Theorem 3.3 Alternate Exterior Angles Theorem**

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

Examples In the diagram, $\angle 1 \cong \angle 8$ and $\angle 2 \cong \angle 7$.

Theorem 3.4 Consecutive Interior Angles Theorem

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

Examples In the diagram, $\angle 3$ and $\angle 5$ are supplementary, and $\angle 4$ and $\angle 6$ are supplementary.