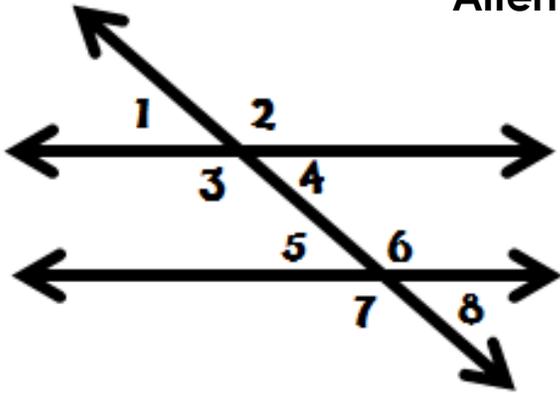


**Alternate Interior
Angles**

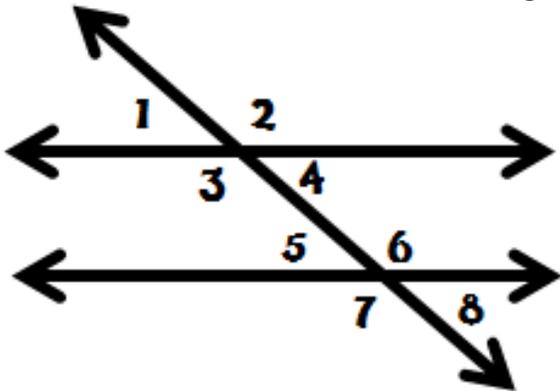
**Alternate Exterior
Angles**

**Corresponding
Angles**

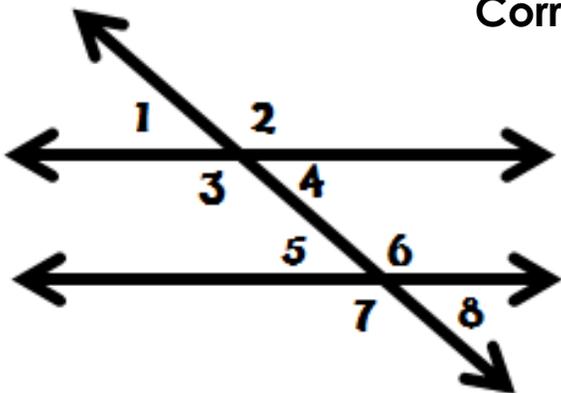
Alternate Interior Angles



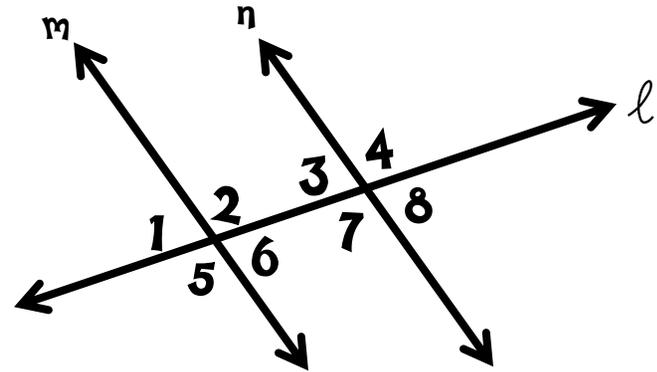
Alternate Exterior Angles



Corresponding Angles



Practice



Use the figure above to answer the following questions.

- Which lines are parallel? _____
- Which line is the transversal? _____
- Name all angles congruent to $\angle 1$ _____
- Name all angles congruent to $\angle 2$ _____
- Name three pairs of supplementary angles

- What relationship exists among $\angle 1$ and $\angle 8$?

- What relationship exists among $\angle 5$ and $\angle 7$?

- What relationship exists among $\angle 2$ and $\angle 7$?

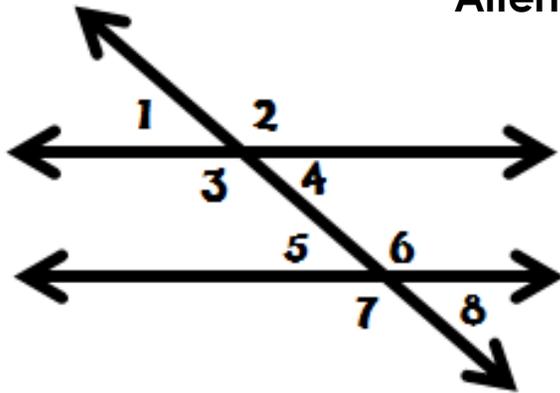
- If $m\angle 1$ is 72° , what is $m\angle 5$? _____
- If $m\angle 2$ is 105° , what is $m\angle 7$? _____
- If $m\angle 4$ is 102° , what is $m\angle 5$? _____
- If $m\angle 8$ is 76° , what is $m\angle 6$? _____
- If $m\angle 6$ is 74° , what is $m\angle 4$? _____

**Alternate Interior
Angles**

**Alternate Exterior
Angles**

**Corresponding
Angles**

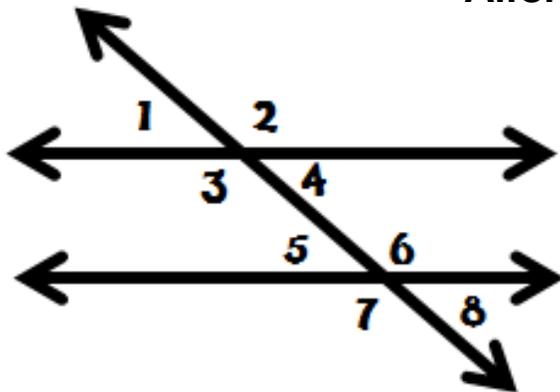
Alternate Interior Angles



$$\angle 3 \cong \angle 6$$

$$\angle 4 \cong \angle 5$$

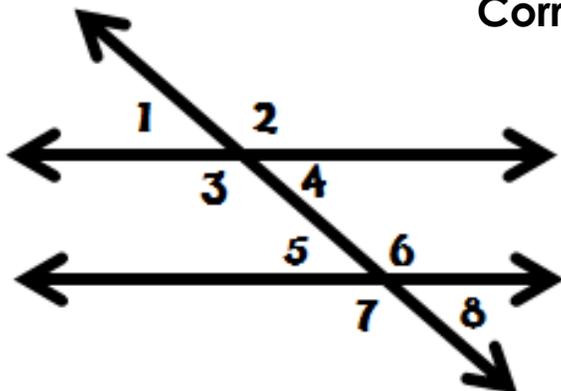
Alternate Exterior Angles



$$\angle 1 \cong \angle 8$$

$$\angle 2 \cong \angle 7$$

Corresponding Angles



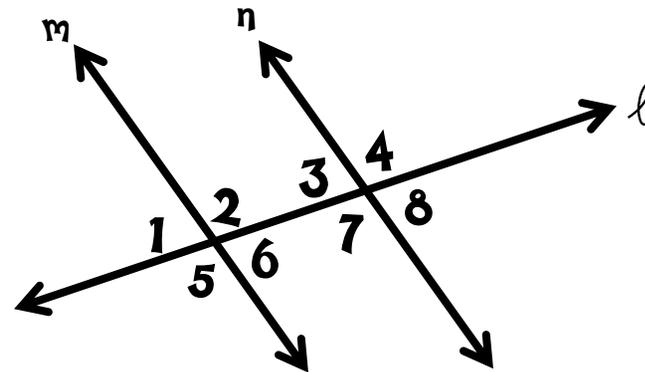
$$\angle 1 \cong \angle 5$$

$$\angle 3 \cong \angle 7$$

$$\angle 2 \cong \angle 6$$

$$\angle 4 \cong \angle 8$$

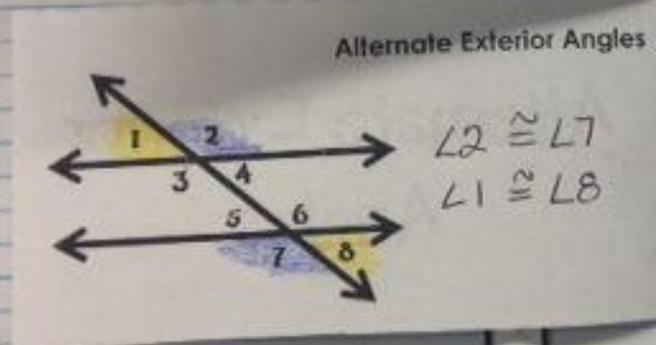
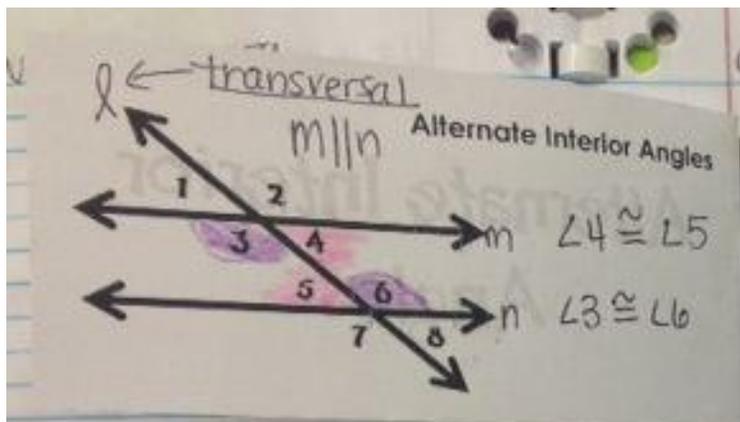
Practice



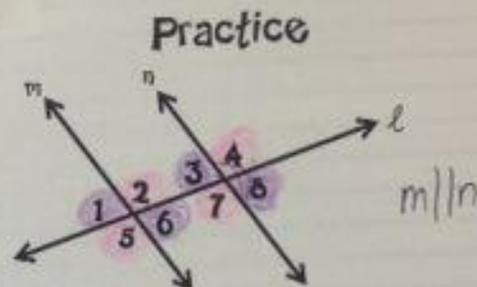
Use the figure above to answer the following questions.

- Which lines are parallel? m is parallel to n
- Which line is the transversal? Line l
- Name all angles congruent to $\angle 1$ $\angle 6, \angle 3, \angle 8$
- Name all angles congruent to $\angle 2$ $\angle 5, \angle 4, \angle 7$
- Name three pairs of supplementary angles
 $\angle 1$ & $\angle 2$ $\angle 2$ & $\angle 6$ $\angle 7$ & $\angle 8$
- What relationship exists among $\angle 1$ and $\angle 8$?
alternate exterior angles
- What relationship exists among $\angle 5$ and $\angle 7$?
corresponding angles
- What relationship exists among $\angle 2$ and $\angle 7$?
alternate interior angles
- If $m\angle 1$ is 72° , what is $m\angle 5$? 108°
- If $m\angle 2$ is 105° , what is $m\angle 7$? 105°
- If $m\angle 4$ is 102° , what is $m\angle 5$? 102°
- If $m\angle 8$ is 76° , what is $m\angle 6$? 76°
- If $\angle 6$ is 74° , what is $m\angle 4$? 106°

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9.2: Parallel Lines cut by a Transversal 2-28



Use the figure above to answer the following questions.

- Which lines are parallel? $m \parallel n$
- Which line is the transversal? l
- Name all angles congruent to $\angle 1$: $\angle 8, \angle 6, \angle 3$
- Name all angles congruent to $\angle 2$: $\angle 7, \angle 5$
- Name three pairs of supplementary angles
 $\angle 1 + \angle 2$ $\angle 3 + \angle 4$ $\angle 7 + 8$
- What relationship exists among $\angle 1$ and $\angle 8$?
 alternate exterior

Corresponding Angles