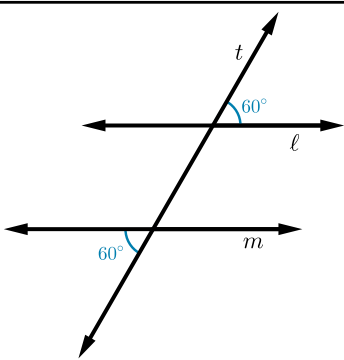
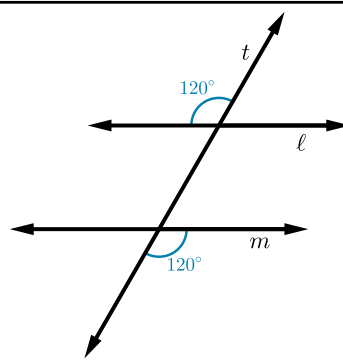
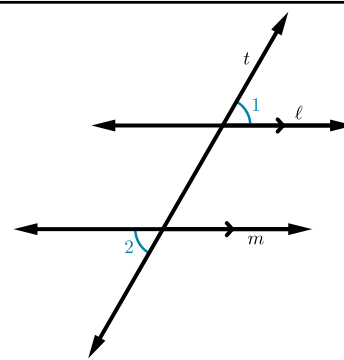


Alternate Exterior Angles Converse

Examples & Non-Examples

Example	Example	Non-Example
 Since these are alternate exterior angles, and they are congruent, then lines l and m must be parallel.	 Since these are alternate exterior angles, and they are congruent, then lines l and m must be parallel.	 Since lines l and m are parallel, then angles 1 and 2 are congruent because they are alternate exterior angles.

Definition

The **Alternate Exterior Angles Converse** is a **converse of the Alternate Exterior Angles Theorem**. It states:

“If two lines are cut by a transversal and the alternate exterior angles are congruent, then the lines are parallel.”

In other words:

- If you are given that two alternate exterior angles are **equal in measure**,
- Then you can **conclude that the two lines are parallel**.

Why it matters:

This converse is often used in proofs to show that lines **must be parallel** based on angle relationships.

