Same-Side Interior Angles Converse

Examples & Non-Examples

Example	Example	Non-Example
120° \(\lambda \)	120° m	
Since these are same-side interior angles, and they are supplementary, then lines I and m must be parallel.	Since these are same-side interior angles, and they are supplementary, then lines I and m must be parallel.	Since lines I and m are parallel, then angles 1 and 2 are supplementary because they are same-side interior angles.

Definition

The Same-Side Interior Angles Converse states:

"If two lines are cut by a transversal and the same-side interior angles are supplementary, then the two lines are parallel."

In other words:

- If the two angles on the same side of the transversal and between the two lines add up to 180°,
- Then you can conclude that the two lines are parallel.

Also known as:

• The Consecutive Angles Converse

Why it matters:

This converse is used to **prove that two lines are parallel** by checking if the same-side interior angles are **supplementary**.

