

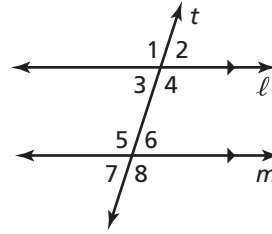
# 6.1

## Practice B

1. Copy and complete the proof of the Alternate Interior Angles Theorem.

**Given**  $l \parallel m$

**Prove**  $\angle 4 \cong \angle 5$



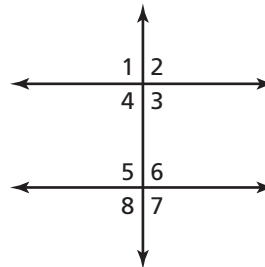
STATEMENTS	REASONS
1. $l \parallel m$	1. Given
2. $\angle 4 \cong \angle 8$	2. _____
3. _____	3. Vertical Angles Congruence Theorem
4. $\angle 4 \cong \angle 5$	4. Transitive Property of Congruence

2. Copy and complete the flowchart proof. Then write a paragraph proof.

**Given**  $\angle 5 \cong \angle 3$

$$m\angle 5 = 90^\circ$$

**Prove**  $m\angle 1 = 90^\circ$



$\angle 5 \cong \angle 3$ $m\angle 5 = 90^\circ$	$m\angle 5 \cong m\angle 3$	$m\angle 3 = 90^\circ$	$\angle 3 \cong \angle 1$	$m\angle 3 = m\angle 1$	_____
Given	_____	_____	_____	_____	Substitution Property of Equality

3. Your friend says that there is not enough information to prove that  $\angle ABD \cong \angle CBD$ . Is your friend correct? Explain your reasoning.

