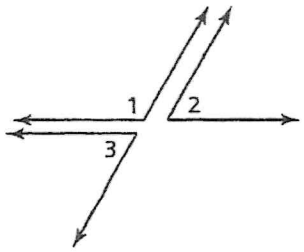
Name _____ Date _____

6.1 Practice A

1. Copy and complete the proof. Then write a paragraph proof.



Given $\angle 1$ and $\angle 2$ are supplementary.
$\angle 2 \cong \angle 3$

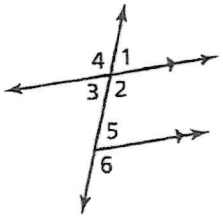
Prove $\angle 1$ and $\angle 3$ are supplementary.

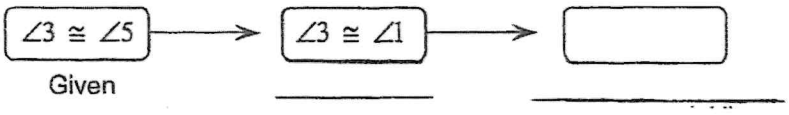
STATEMENTS	REASONS
1. $\angle 1$ and $\angle 2$ are supplementary. $\angle 2 \cong \angle 3$	1. Given
2. $m\angle 1 + m\angle 2 = 180°$	2. _____
3. $m\angle 2 = m\angle 3$	3. Definition of congruent angles
4. _____	4. Substitution Property of Equality
5. $\angle 1$ and $\angle 3$ are supplementary.	5. Definition of supplementary angles

2. Copy and complete the flowchart proof. Then write a two-column proof.

Given $\angle 3 \cong \angle 5$

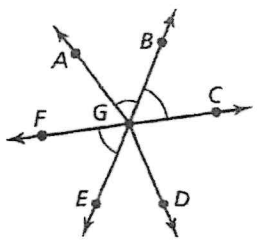
Prove $\angle 1 \cong \angle 5$





Given

3. Your friend says that there is enough information to prove that $\angle AGB \cong \angle EGD$. Is your friend correct? Explain your reasoning.



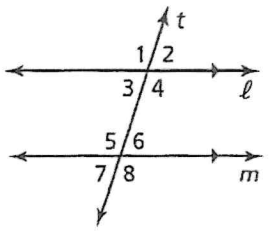
Name_____ Date_____

6.1 Practice B

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

Given $\ell \parallel m$

Prove $\angle 4 \cong \angle 5$



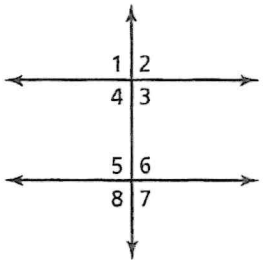
STATEMENTS	REASONS
1. $\ell \parallel m$	1. Given
2. $\angle 4 \cong \angle 8$	2. _____
3. _____	3. Vertical Angles Congruence Theorem
4. $\angle 4 \cong \angle 5$	4. Transitive Property of Congruence

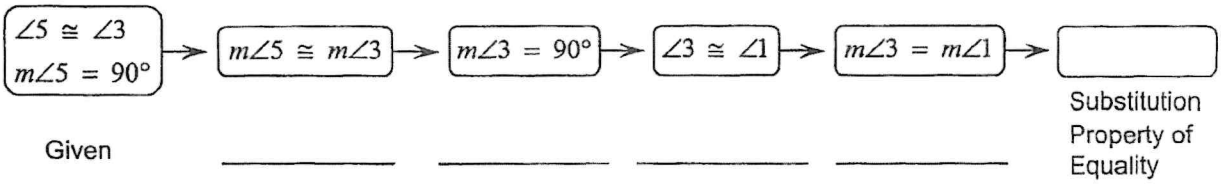
2. Copy and complete the flowchart proof. Then write a paragraph proof.

Given $\angle 5 \cong \angle 3$

$m\angle 5 = 90°$

Prove $m\angle 1 = 90°$





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.