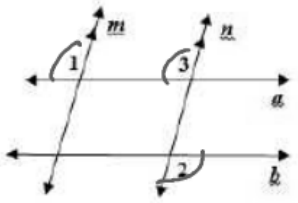
Given: $m \parallel n$, $\angle 1 \cong \angle 2$.

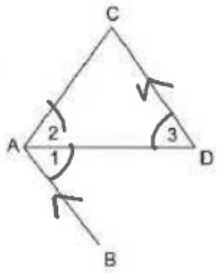
Prove: $a \parallel b$



Statements	Reasons
1. $m \parallel n$	1. Given
2. $\angle 1 \cong \angle 3$	2. Corresponding ∠'s
3. $\angle 1 \cong \angle 2$	3. Given
4. $\angle 3 \cong \angle 2$	4. Substitution
5. $a \parallel b$	5. If Alternate Exterior ∠'s are ≅ then Lines are ∥.

6. Given: $\overline{CD} \parallel \overline{AB}$; $\angle 2 \cong \angle 1$

Prove: $\angle 2 \cong \angle 3$



Statements	Reasons
1) $\overline{CD} \parallel \overline{AB}$, $\angle 2 \cong \angle 1$	1) Given
2) $\angle 1 \cong \angle 3$	2) Alternate Interior ∠'s ≅.
3) $\angle 2 \cong \angle 3$	3) Substitution prop.