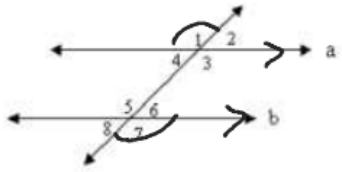
Proving Parallel Lines

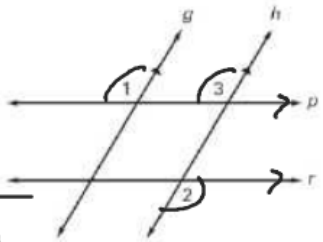
Given: $m\angle 1 = m\angle 7$
Prove: $\angle 3 \cong \angle 5$



Statement	Reason
1) $m\angle 1 = m\angle 7$	1) Given
2) a ∥ b	2) If Alt Ext ∠'s are ≅ Lines are ∥.
3) $\angle 3 \cong \angle 5$	3) Alternate Interior ∠'s

Given: $g \parallel h$, $\angle 1 \cong \angle 2$

Prove: $p \parallel r$



	Statement	Reason
1)	g ∥ h, ∠1 ≅ 2	1) Given
2)	∠1 ≅ ∠3	2) Corresponding ∠'s
3)	∠3 ≅ ∠2	3) Substitution
4)	p ∥ r	4) If Alternate Exterior ∠'s are ≅ then lines are ∥.