

4. Given: $g \parallel h$; $\angle 1 \cong \angle 5$

Prove: $\angle 5 \cong \angle 3$

Statements

Reasons

1) $g \parallel h$, $\angle 1 \cong \angle 5$

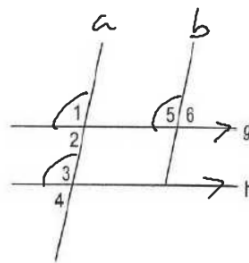
1) Given

2) $\angle 1 \cong \angle 3$

2) Corresponding \angle 's

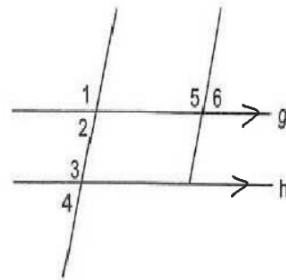
3) $\angle 3 \cong \angle 5$

3) Substitution prop.



5. Given: $g \parallel h$; $\angle 6$ & $\angle 3$ are supplementary

Prove: $\angle 6 \cong \angle 2$



Statements	Reasons
1) $g \parallel h$ $\angle 6$ & $\angle 3$ are Supplementary	1) Given
2) $m\angle 6 + m\angle 3 = 180$	2) Def of Supplementary angles
3) $\angle 2$ & $\angle 3$ are supp	3) Same-side Interior \angle 's
4) $m\angle 2 + m\angle 3 = 180$	4) Def of Supp. \angle 's
5) $m\angle 6 + m\angle 3 = m\angle 2 + m\angle 3$ $\quad \quad \quad -m\angle 3 \quad \quad \quad -m\angle 3$	5) Substitution
6) $\angle 6 \cong \angle 2$	6) Subtraction prop.