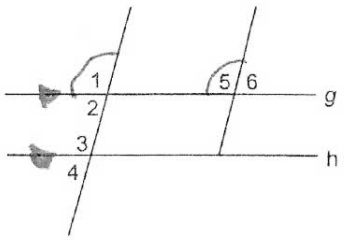
4. Given: $g \parallel h$; $\angle 1 \cong \angle 5$

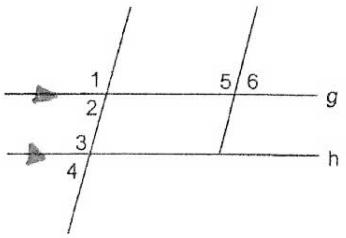
Prove: $\angle 5 \cong \angle 3$



Statements	Reasons
$g \parallel h$, $\angle 1 \cong \angle 5$	Given
$\angle 1 \cong \angle 3$	Corr $\angle$ Post
$\angle 5 \cong \angle 3$	Transitive $\cong$

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

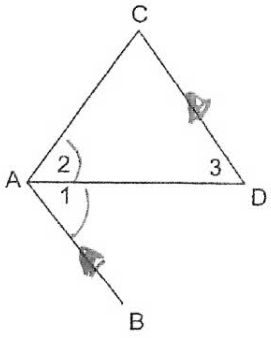
Prove: $\angle 6 \cong \angle 2$



Statements	Reasons
$g \parallel h$; $\angle 6 + \angle 3$ are Supp.	Given
$\angle 2 + \angle 3$ are Supp	Consec Int $\angle$ Thm
$\angle 6 \cong \angle 2$	$\cong$ Supplement Thm

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

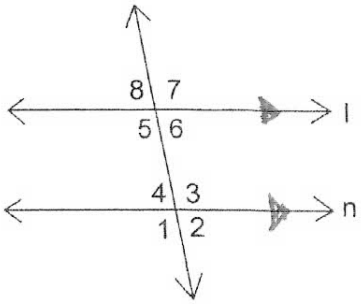
Prove: $\angle 2 \cong \angle 3$



Statements	Reasons
$\overline{CD} \parallel \overline{AB}$; $\angle 2 \cong \angle 1$	Given
$\angle 1 \cong \angle 3$	Alt Int $\angle$ Thm
$\angle 2 \cong \angle 3$	Transitive $\cong$

7. Given: $l \parallel n$

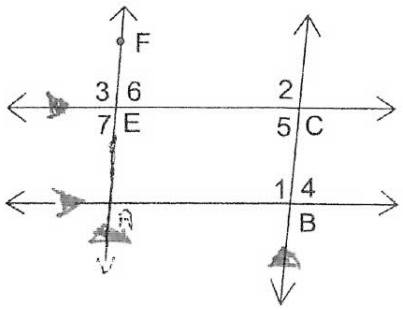
Prove: $m\angle 2 + m\angle 7 = 180°$



Statements	Reasons
$l \parallel n$	Given
$\angle 4$ & $\angle 5$ are supplementary	Consec Int $\angle$ Thm
$m\angle 4 + m\angle 5 = 180$	Def of Supple $\angle$'s
$\angle 5 \cong \angle 7$, $\angle 2 \cong \angle 4$	V ACT
$m\angle 5 = m\angle 7$ $m\angle 2 = m\angle 4$	Def of $\cong$
$m\angle 2 + m\angle 7 = 180$	Substitution

8. Given: $\overline{AB} \parallel \overline{EC}$; $\overline{BC} \parallel \overline{EF}$

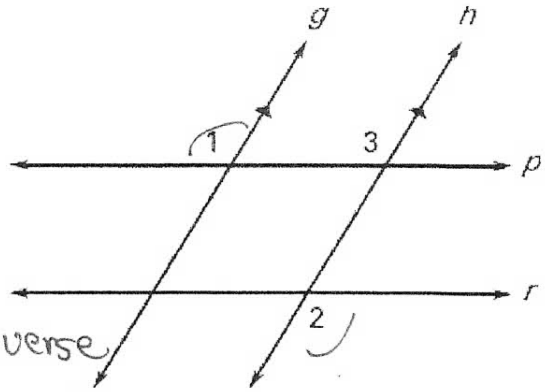
Prove: $\angle 7 \cong \angle 4$



Statements	Reasons
$\overleftrightarrow{AB} \parallel \overleftrightarrow{EC}$; $\overleftrightarrow{BC} \parallel \overleftrightarrow{EF}$	Given
$\angle 4 \cong \angle 5$	Alt int $\angle$ Thm
$\angle 5 \cong \angle 7$	Corr $\angle$ Post
$\angle 7 \cong \angle 4$	Transitive $\cong$

9. **GIVEN:** $g \parallel h$, $\angle 1 \cong \angle 2$

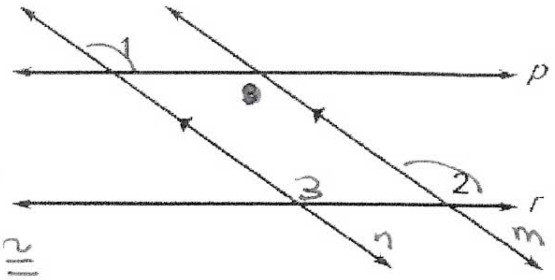
PROVE: $p \parallel r$



Statements	Reasons
$g \parallel h$, $\angle 1 \cong \angle 2$	Given
$\angle 1 \cong \angle 3$	Corr $\angle$ Post
$\angle 2 \cong \angle 3$	Transitive
$p \parallel r$	Alt Ext $\angle$ Converse

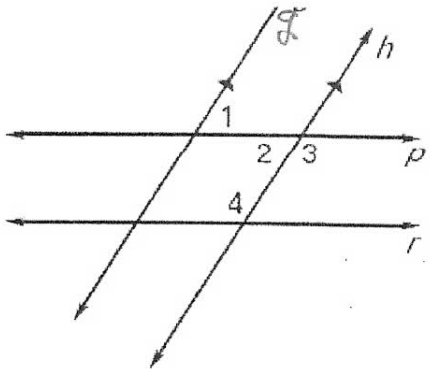
10. **GIVEN:** $n \parallel m$, $\angle 1 \cong \angle 2$

PROVE: $p \parallel r$



Statements	Reasons
$n \parallel m$, $\angle 1 \cong \angle 2$	Given
$\angle 2 \cong \angle 3$	Corr $\angle$ Post
$\angle 1 \cong \angle 3$	Transitive $\cong$
$p \parallel r$	Corr $\angle$ Converse

11. **GIVEN:** $g \parallel h$, $\angle 1$ and $\angle 4$ are supplementary
PROVE: $p \parallel r$



Statements	Reasons
$g \parallel h$, $\angle 1$ and $\angle 4$ are supp	Given
$\angle 1 \cong \angle 2$	Alt Int $\angle$ Thm
$\angle 4$ and $\angle 2$ are supp.	substitution
$p \parallel r$	Consec int $\angle$ converse