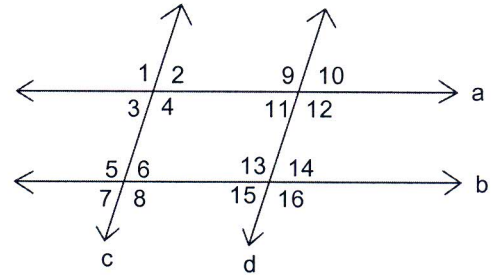


1. Given:  $a \parallel b ; c \parallel d$

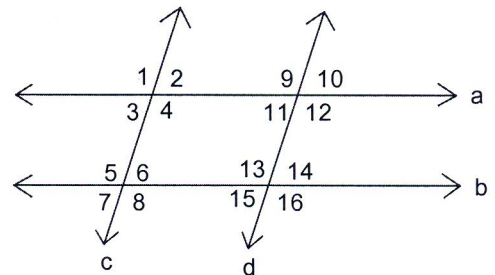
Prove:  $\angle 1 \cong \angle 13$



Statements	Reasons
1. $a \parallel b ; c \parallel d$	1.
2. $\angle 1 \cong \angle 12$	2.
3. $\angle 12 \cong \angle 13$	3.
4. $\angle 1 \cong \angle 13$	4.

2. Given:  $a \parallel b$

Prove:  $m\angle 9 + m\angle 14 = 180^\circ$

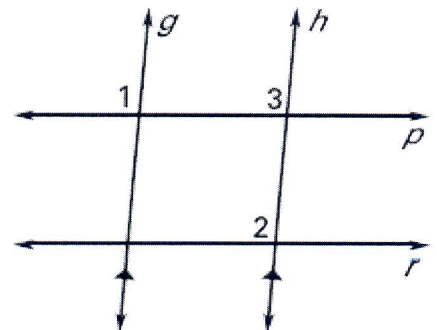


Statements	Reasons
1. $a \parallel b$	1.
2. $m\angle 9 + m\angle 11 = 180^\circ$	2.
3. $m\angle 11 = m\angle 14$	3.
4. $m\angle 9 + m\angle 14 = 180^\circ$	4.

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

PROVE:  $p \parallel r$

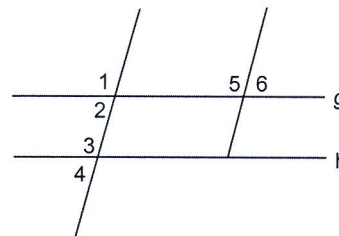
Statements	Reasons
1. $g \parallel h, \angle 1 \cong \angle 2$	1.
2. $\angle 1 \cong \angle 3$	2.
3. $\angle 2 \cong \angle 3$	3.
4. $p \parallel r$	4.



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

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

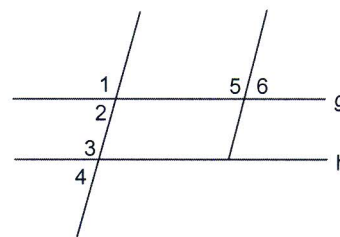
Statements \_\_\_\_\_ Reasons



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

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

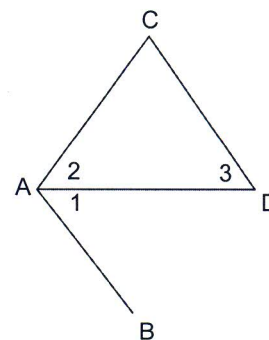
Statements \_\_\_\_\_ Reasons



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

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

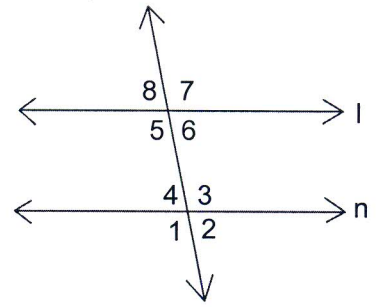
Statements \_\_\_\_\_ Reasons



7. Given:  $l \parallel n$

Prove:  $m\angle 2 + m\angle 7 = 180^\circ$

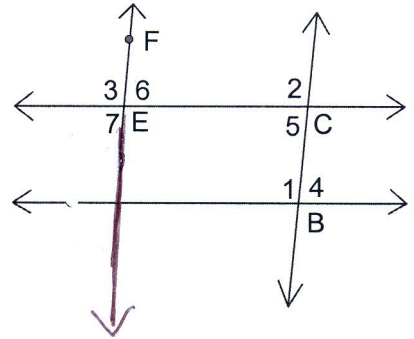
Statements \_\_\_\_\_ Reasons



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

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

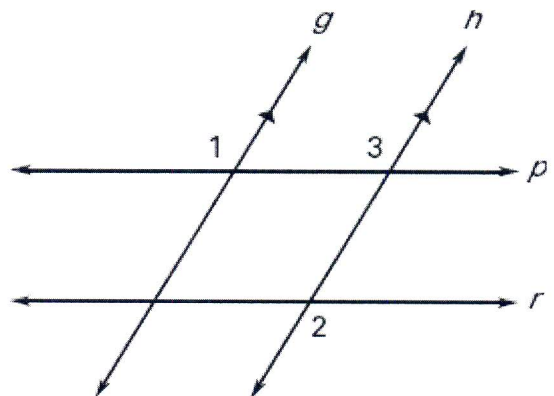
Statements \_\_\_\_\_ Reasons



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

PROVE:  $p \parallel r$

Statements \_\_\_\_\_ Reasons

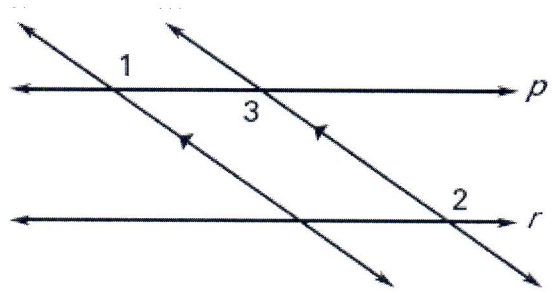


10. **GIVEN:**  $n \parallel m, \angle 1 \cong \angle 2$

**PROVE:**  $p \parallel r$

Statements

Reasons

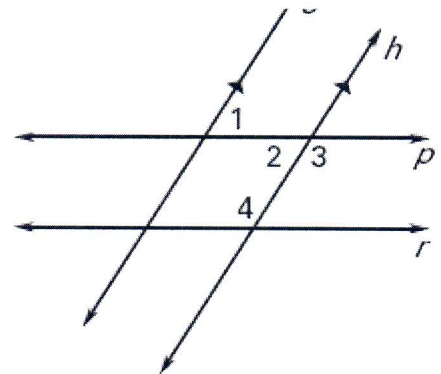


11. **GIVEN:**  $g \parallel h, \angle 1$  and  $\angle 4$  are supplementary

**PROVE:**  $p \parallel r$

Statements

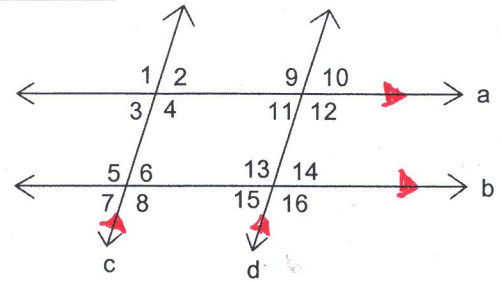
Reasons



Name \_\_\_\_\_ Date \_\_\_\_\_

1. Given:  $a \parallel b$ ;  $c \parallel d$

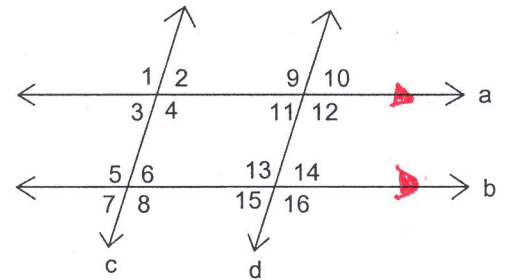
Prove:  $\angle 1 \cong \angle 13$



Statements	Reasons
1. $a \parallel b$ ; $c \parallel d$	1. Given
2. $\angle 1 \cong \angle 12$	2. Alt Ext $\angle$ Thm
3. $\angle 12 \cong \angle 13$	3. Alt Int $\angle$ Thm
4. $\angle 1 \cong \angle 13$	4. Transitive $\cong$

2. Given:  $a \parallel b$

Prove:  $m\angle 9 + m\angle 14 = 180^\circ$

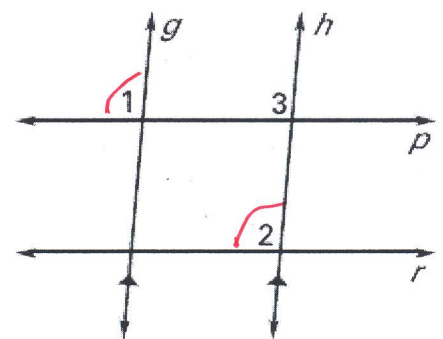


Statements	Reasons
1. $a \parallel b$	1. Given
2. $m\angle 9 + m\angle 11 = 180^\circ$	2. Linear Pair Post
3. $m\angle 11 = m\angle 14$	3. Alt Int $\angle$ Thm
4. $m\angle 9 + m\angle 14 = 180^\circ$	4. Substitution

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

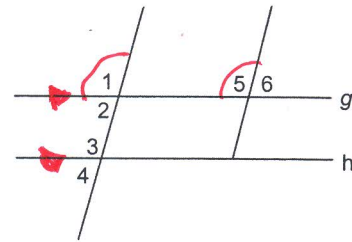
PROVE:  $p \parallel r$

Statements	Reasons
1. $g \parallel h$ , $\angle 1 \cong \angle 2$	1. Given
2. $\angle 1 \cong \angle 3$	2. Corr $\angle$ Post
3. $\angle 2 \cong \angle 3$	3. Transitive $\cong$
4. $p \parallel r$	4. Corr $\angle$ Converse



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

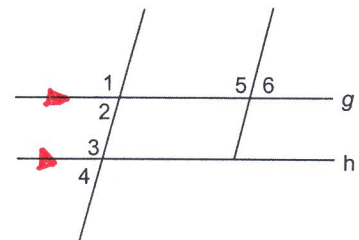
Prove:  $\angle 5 \cong \angle 3$



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

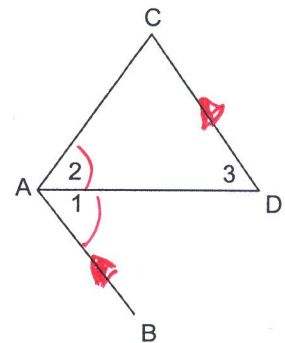
Prove:  $\angle 6 \cong \angle 2$



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

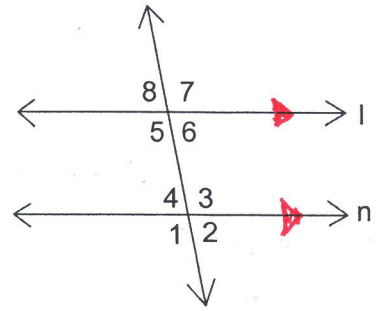
Prove:  $\angle 2 \cong \angle 3$



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:  $m\angle 2 + m\angle 7 = 180^\circ$



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

$\angle 5 \cong \angle 7, \angle 2 \cong \angle 4$

VACT

$m\angle 5 = m\angle 7, m\angle 2 = m\angle 4$

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

$\overline{AB} \parallel \overline{EC}; \overline{BC} \parallel \overline{EF}$

Given

$\angle 4 \cong \angle 5$

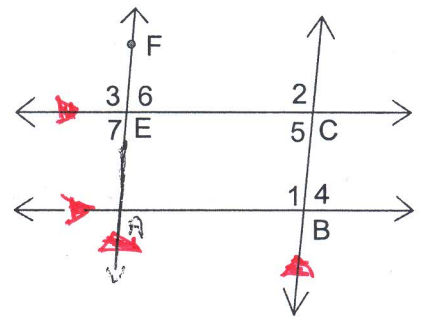
Alt Int  $\angle$  Thm

$\angle 5 \cong \angle 7$

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

$\angle 1 \cong \angle 3$

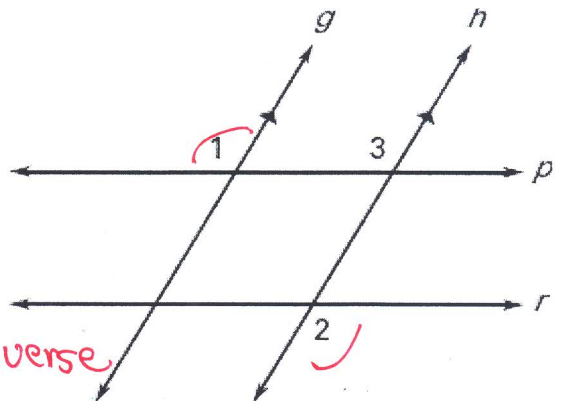
Corr  $\angle$  Post

$\angle 2 \cong \angle 3$

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

$\angle 2 \cong \angle 3$

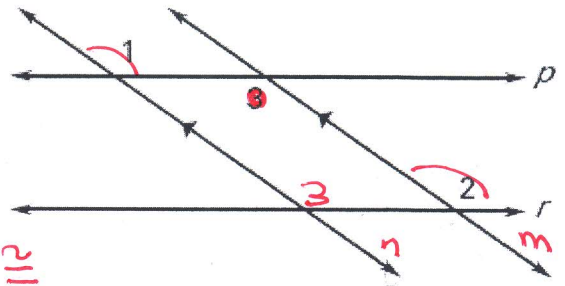
Corr  $\angle$  Post

$\angle 1 \cong \angle 3$

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

