

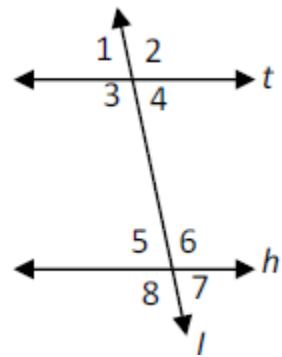
Name: _____

Parallel Proofs HW

1. Given: $t \parallel h$

Prove: $\angle 3$ and $\angle 7$ are supplementary.

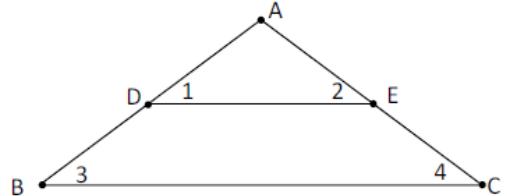
Statements	Reasons
1.	1.
2.	2. Vertical \angle s are \cong
3. $\angle 3 + \angle 5 = 180$	3. // lines form _____
4. $\angle 3 + \angle 7 = 180$	4.
5.	5.



2. Given: $DE \parallel BC$ and $\angle 1 \cong \angle 2$

Prove: $\angle 3 \cong \angle 4$

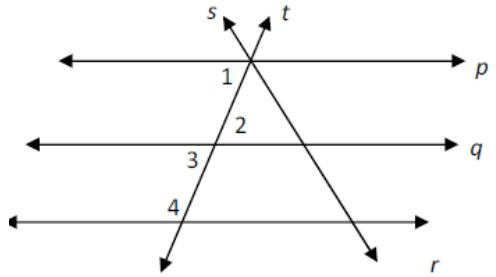
Statements	Reasons
1.	1.
2. $\angle 1 \cong \angle 3$, and $\angle 4 \cong \angle 2$	2.
3.	3.



3. Given: $p \parallel q \parallel r$

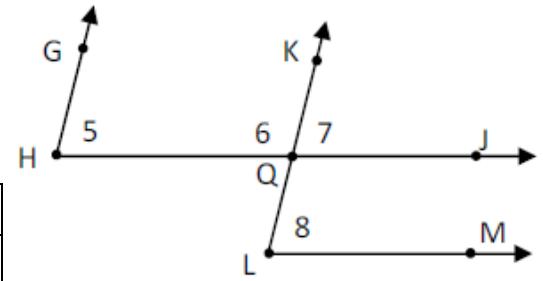
Prove: $\angle 2$ and $\angle 4$ are supplementary

Statements	Reasons
1.	1.
2. $\angle 3 + \angle 4 = 180$	2.
3. $\angle 3 \cong \angle 2$	3.
4. $\angle 2 + \angle 4 = 180$	4.
5.	5.



4. Given: $HJ \parallel LM$, $HG \parallel LK$

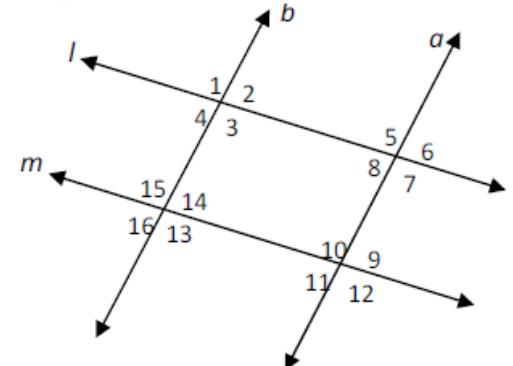
Prove: $\angle 5 \cong \angle 8$



Statements	Reasons
1.	1.
2. $\angle 5 \cong \angle 7$	2.
3. $\angle 7 \cong \angle 8$	3.
4. $\angle 5 \cong \angle 8$	4.

5. Given: $a \parallel b$, $l \parallel m$

Prove: $\angle 5 \cong \angle 13$

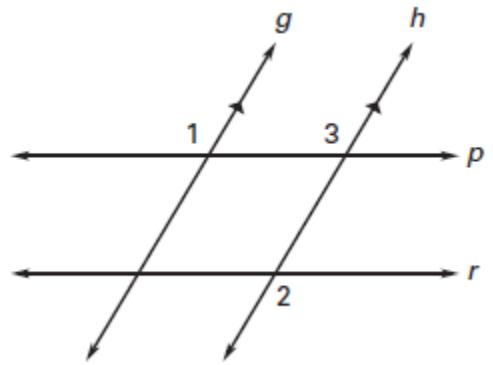


Statements	Reasons
1.	1.
2. $\angle 5 \cong \angle 3$	2.
3. $\angle 3 \cong \angle 13$	3.
4. $\angle 5 \cong \angle 13$	4.

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

Prove: $p \parallel r$

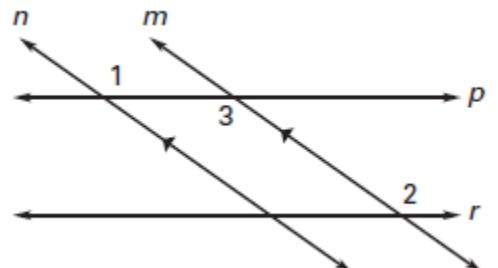
Statements	Reasons
1. $g \parallel h$	1.
2. $\angle 1 \cong \angle 3$	2.
3. $\angle 1 \cong \angle 2$	3.
4. $\angle 3 \cong \angle 2$	4.
5.	5.



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

Prove: $p \parallel r$

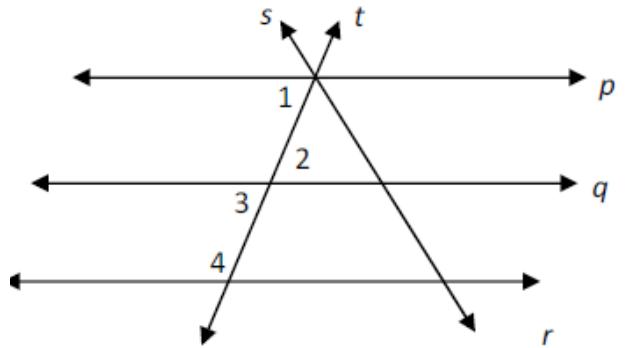
Statements	Reasons
1. $n \parallel m$	1.
2. $\angle 1 \cong \angle 3$	2.
3. $\angle 1 \cong \angle 2$	3.
4. $\angle 3 \cong \angle 2$	4.
5.	5.



8. Given: $q \parallel r$, $\angle 1$ and $\angle 4$ are supplementary

Prove: $p \parallel q$

Statements	Reasons
1.	1.
2. $\angle 1 + \angle 4 = 180^\circ$	2.
3. $\angle 3 + \angle 4 = 180^\circ$	3.
4. $\angle 1 + \angle 4 = \angle 3 + \angle 4$	4.
5. $\angle 1 \cong \angle 3$	5.
6.	6.



9. Given: $\angle 2$ and $\angle 8$ are supplementary

Prove: $m \parallel n$

Statements	Reasons
1.	1.
2. $\angle 2 + \angle 8 = 180$	2.
3. $\angle 2 + \angle 4 = 180$	3.
4. $\angle 2 + \angle 8 = \angle 2 + \angle 4$	4.
5. $\angle 8 \cong \angle 4$	5.
6.	6.

