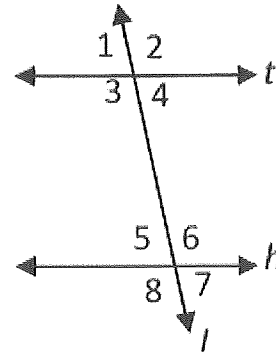


Name: \_\_\_\_\_

# Parallel Proofs A

1. Given:  $t \parallel h$

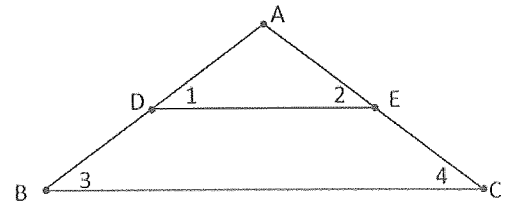
Prove:  $\angle 3$  and  $\angle 7$  are supplementary.



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

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

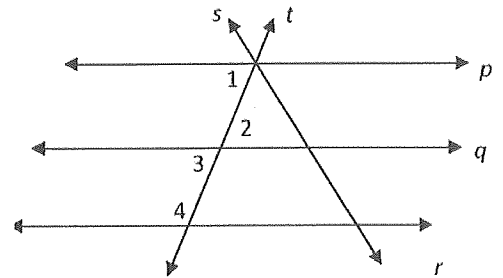
Prove:  $\angle 3 \cong \angle 4$



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

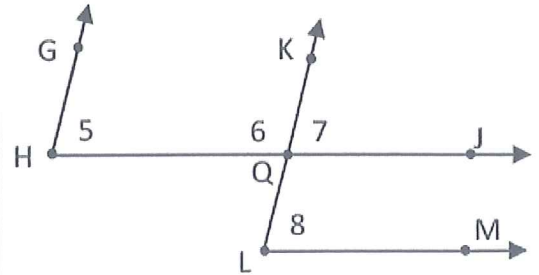


Statements	Reasons
1.	1.
2. $\angle 3 + \angle 4 = 180$	2.
3. $\angle 3 \cong \angle 2$	3.
4. $\angle 2 + \angle 4 = 180$	4.
5.	5.

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

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

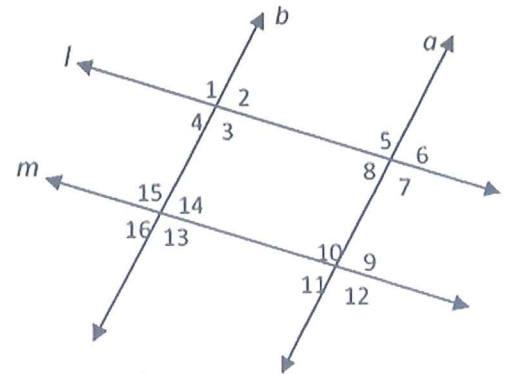
Statements	Reasons
1.	1.
2. $\angle 5 \cong \angle 7$	2.
3. $\angle 7 \cong \angle 8$	3.
4. $\angle 5 \cong \angle 8$	4.



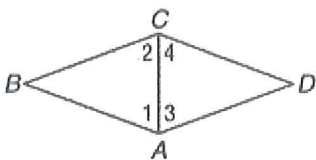
5. Given:  $a \parallel b$ ,  $l \parallel m$

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. Proof Review:



Given:  $\overline{AC}$  bisects  $\angle BAD$ .

$\overline{AC}$  bisects  $\angle BCD$ .

$\angle 1 \cong \angle 2$

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

**Statements**

1.  $\overline{AC}$  bisects  $\angle BAD$ .
2.  $\overline{AC}$  bisects  $\angle BCD$ .
3.  $\angle 1 \cong \angle 2$
4.  $\angle 1 \cong \angle 3$  and  $\angle 2 \cong \angle 4$
5.  $\angle 3 \cong \angle 4$

**Reasons**

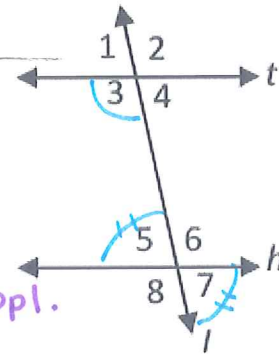
1. Given
2. Given
3. Given
4. \_\_\_\_\_
5. \_\_\_\_\_

Name: \_\_\_\_\_

# Parallel Proofs A

1. Given:  $t \parallel h$

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



1.  $t \parallel h$

2.  $\angle 5 \cong \angle 7$

3.  $\angle 3 + \angle 5 = 180^\circ$

4.  $\angle 3 + \angle 7 = 180^\circ$

5.  $\angle 3$  and  $\angle 7$  are suppl.

1. Given

2. vertical  $\angle$ s are  $\cong$ .

3.  $\parallel$  lines form suppl. con. int  $\angle$ s.

4. Substitution

5. def of suppl.

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

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

1.  $DE \parallel BC$ ,  $\angle 1 \cong \angle 2$

2.  $\angle 1 \cong \angle 3$

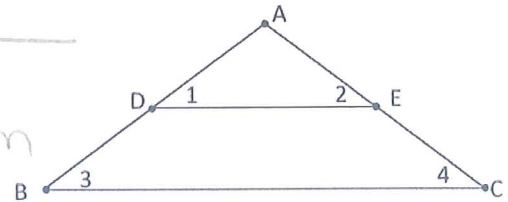
$\angle 2 \cong \angle 4$

$\angle 3 \cong \angle 4$

1. given

2.  $\parallel$  lines form  $\cong$  corr.  $\angle$ s

3. Substitution



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

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

1.  $p \parallel q \parallel r$

2.  $\angle 3 + \angle 4 = 180^\circ$

3.  $\angle 3 \cong \angle 2$

4.  $\angle 2 + \angle 4 = 180^\circ$

5.  $\angle 2$  and  $\angle 4$  are suppl.

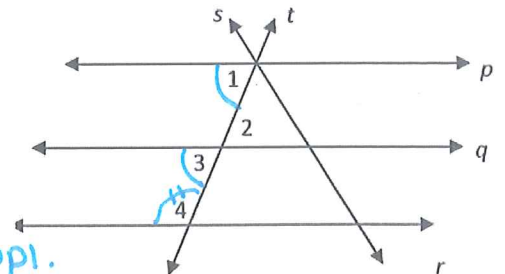
1. given

2.  $\parallel$  lines form suppl. con. int  $\angle$ s.

3. vertical  $\angle$ s are  $\cong$

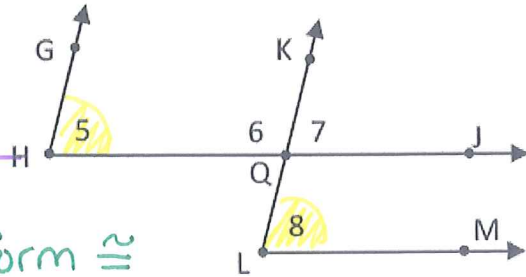
4. Substitution

5. def of suppl.



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

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

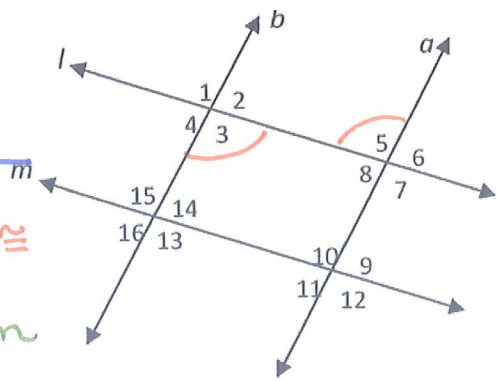


1.  $HJ \parallel LM$ ,  $HG \parallel LK$
2.  $\angle 5 \cong \angle 7$
3.  $\angle 7 \cong \angle 8$
4.  $\angle 5 \cong \angle 8$

1. given
2.  $\parallel$  lines form  $\cong$  corr.  $\angle$ s
3.  $\parallel$  lines form  $\cong$  corr.  $\angle$ s
4. Substitution

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

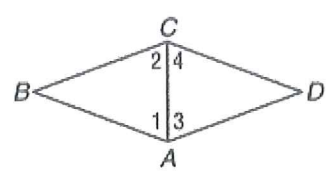
Prove:  $\angle 5 \cong \angle 13$



1.  $a \parallel b$ ,  $l \parallel m$
2.  $\angle 5 \cong \angle 3$
3.  $\angle 3 \cong \angle 13$
4.  $\angle 5 \cong \angle 13$

1. given
2.  $\parallel$  lines form  $\cong$  alt. int  $\angle$ s.
3.  $\parallel$  lines form  $\cong$  corr.  $\angle$ s.
4. Substitution

6. Proof Review:



Given:  $\overline{AC}$  bisects  $\angle BAD$ .  
 $\overline{AC}$  bisects  $\angle BCD$ .  
 $\angle 1 \cong \angle 2$   
 Prove:  $\angle 3 \cong \angle 4$

Statements	Reasons
1. $\overline{AC}$ bisects $\angle BAD$ .	1. Given
2. $\overline{AC}$ bisects $\angle BCD$ .	2. Given
3. $\angle 1 \cong \angle 2$	3. Given
4. $\angle 1 \cong \angle 3$ and $\angle 2 \cong \angle 4$	4. _____
5. $\angle 3 \cong \angle 4$	5. _____