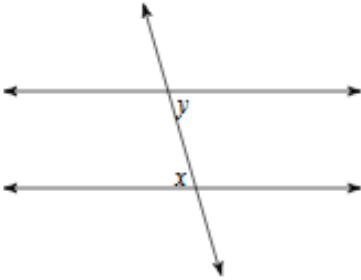


Name: _____ Hour: _____

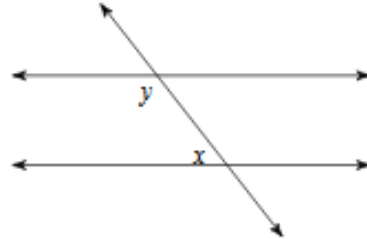
6.4-6.5A Parallel Lines and Transversals Proofs

Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, vertical, or linear pair.

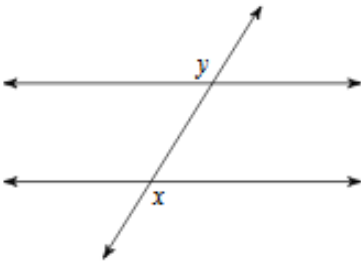
1)



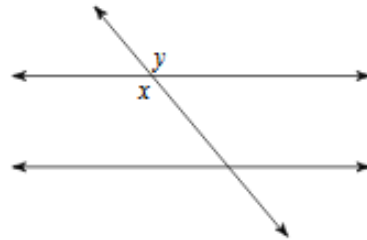
2)



3)

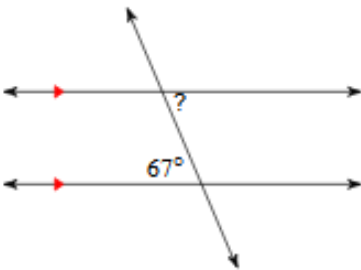


4)

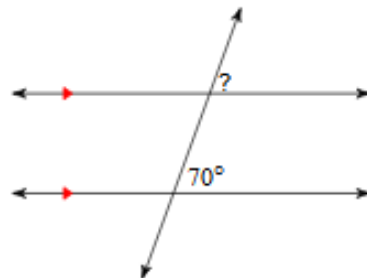


Find the measure of each angle indicated.

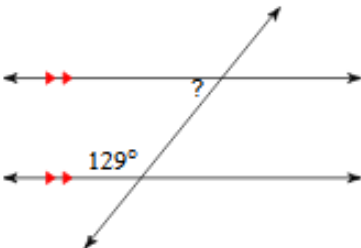
5)



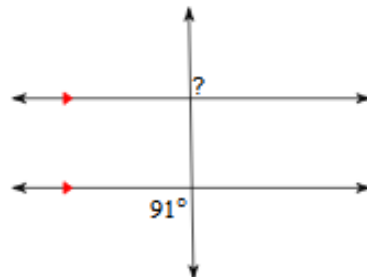
6)



7)



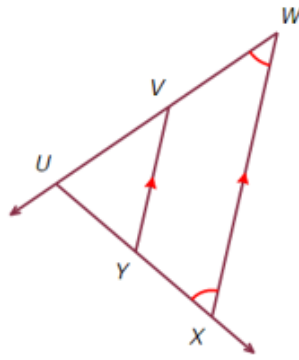
8)



9) Given: $\angle WXY \cong \angle W$

$$\overline{VY} \parallel \overline{WX}$$

Prove: $\angle UYV \cong \angle UVY$

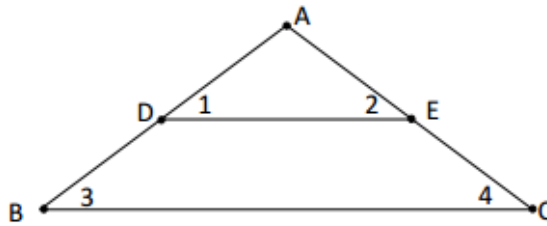


Statement	Reason
1. $\angle WXY \cong \angle W$	1.
2. $\overline{VY} \parallel \overline{WX}$	2.
3. $\angle WXY \cong \angle UYV$	3.
4. $\angle W \cong \angle UVY$	4.
5. $\angle W \cong \angle UYV$	5.
6. $\angle UYV \cong \angle UVY$	6.

10) Given: $m\angle 1 = m\angle 3$

$$m\angle 1 = m\angle 2$$

Prove: $m\angle 3 = m\angle 4$

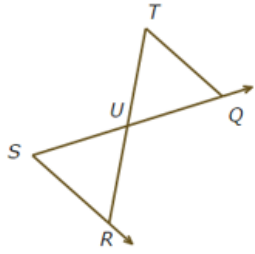


Statement	Reason
1. $m\angle 1 = m\angle 3$	1.
2. $m\angle 1 = m\angle 2$	2.
3. $m\angle 2 = m\angle 3$	3.
4. $m\angle 1 = m\angle 3$ are corresponding angles	4.
5. $DE \parallel BC$	5.
6. $m\angle 2 = m\angle 4$	6.
7. $m\angle 3 = m\angle 4$	7.

11) Given: $\angle TQU \cong \angle T$

$$\overrightarrow{RS} \parallel \overrightarrow{QT}$$

Prove: $\angle S \cong \angle SRU$

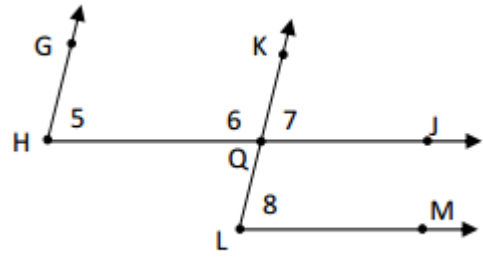


Statement	Reason
1. $\angle TQU \cong \angle T$	1.
2. $\overrightarrow{RS} \parallel \overrightarrow{QT}$	2.
3. $\angle TQU \cong \angle S$	3.
4. $\angle SRU \cong \angle T$	4.
5. $\angle TQU \cong \angle SRU$	5.
6. $\angle S \cong \angle SRU$	6.

12) Given: $\overline{HJ} \parallel \overline{LM}$

$$\overline{HG} \parallel \overline{LK}$$

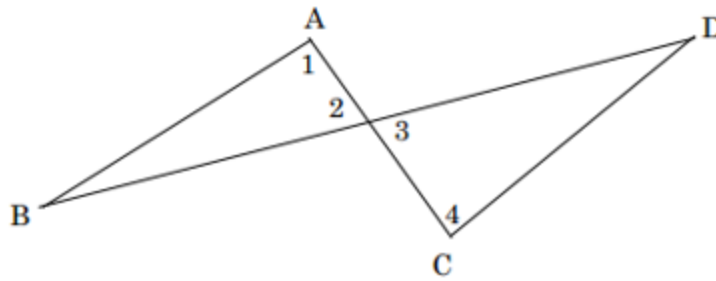
Prove: $m\angle 5 = m\angle 8$



Statement	Reason
1. $\overline{HG} \parallel \overline{LK}$	1.
2. $m\angle 5 = m\angle 7$	2.
3. $\overline{HJ} \parallel \overline{LM}$	3.
4. $m\angle 7 = m\angle 8$	4.
5. $m\angle 5 = m\angle 8$	5.

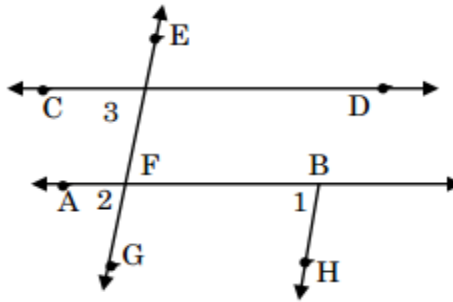
13) Given: $\angle 1 \cong \angle 2$

Prove: $\overline{AB} \parallel \overline{CD}$



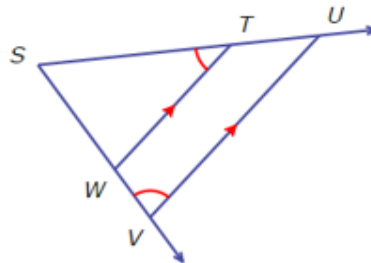
Statement	Reason
1. $\angle 1 \cong \angle 2$	1.
2. $\angle 2 \cong \angle 3$	2.
3. $\angle 1 \cong \angle 3$	3.
4. $\angle 3 \cong \angle 4$	4.
5. $\angle 1 \cong \angle 4$	5.
6. $\overline{AB} \parallel \overline{CD}$	6.

14) Given: $\angle 3 \cong \angle 1, \angle 2 \cong \angle 3$
 Prove: $\overline{EG} \parallel \overline{BH}$



Statement	Reason
1. $\angle 3 \cong \angle 1, \angle 2 \cong \angle 3$	1.
2. $\angle 1 \cong \angle 2$	2.
3. $\angle 1 \cong \angle 2$ are Corresponding Angles	3.
4. $\overline{EG} \parallel \overline{BH}$	4.

15) Given: $\angle STW \cong \angle UVW$
 $\overline{TW} \parallel \overline{UV}$
 Prove: $\angle TUV \cong \angle UVW$



Statement	Reason
1. $\angle STW \cong \angle UVW$	1.
2. $\overline{TW} \parallel \overline{UV}$	2.
3. $\angle TUV \cong \angle STW$	3.
4. $\angle TUV \cong \angle UVW$	4.

