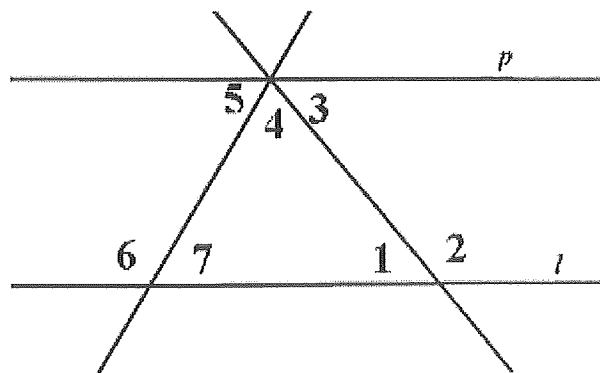


## Parallels Cut by Transversals Proofs HW

1. Given:  $\angle 7 \cong \angle 1$  and  $l \parallel p$

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



1.  $\angle 7 \cong \angle 1$  and  $l \parallel p$

1. Given

2.  $\angle 7 \cong \angle 5$ ,  $\angle 3 \cong \angle 1$

2. \_\_\_\_\_

3. \_\_\_\_\_

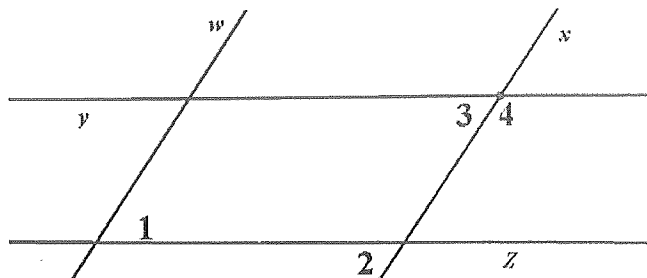
3. Substitution

4.  $\angle 5 \cong \angle 3$

4. \_\_\_\_\_

2. Given:  $w \parallel x$  and  $y \parallel z$

Prove:  $\angle 1$  and  $\angle 4$  are supplementary



1.  $w \parallel x$  and  $y \parallel z$

1. \_\_\_\_\_

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

2. \_\_\_\_\_

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

3. \_\_\_\_\_

4.  $\angle 3 + \angle 4 = 180$

4. \_\_\_\_\_

5.  $\angle 2 + \angle 4 = 180$

5. \_\_\_\_\_

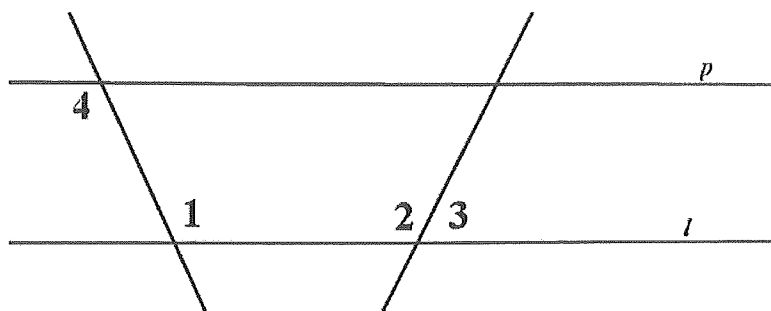
6.  $\angle 1 + \angle 4 = 180$

6. \_\_\_\_\_

7.  $\angle 1$  and  $\angle 4$  are supplementary

7. \_\_\_\_\_

3. Given:  $\angle 1 \cong \angle 2$  and  $l \parallel p$   
 Prove:  $\angle 3 + \angle 4 = 180^\circ$

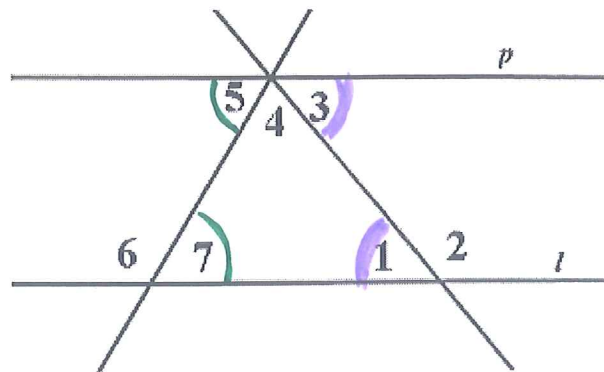


- |  |          |
|--|----------|
| 1. $\angle 1 \cong \angle 2$ and $l \parallel p$ | 1. _____ |
| 2. _____   | 2. _____ |
| 3. _____   | 3. _____ |
| 4. _____   | 4. _____ |
| 5. $\angle 3 + \angle 4 = 180^\circ$             | 5. _____ |

## Parallels Cut by Transversals Proofs HW

1. Given:  $\angle 7 \cong \angle 1$  and  $l \parallel p$

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



1.  $\angle 7 \cong \angle 1$  and  $l \parallel p$

2.  $\angle 7 \cong \angle 5$ ,  $\angle 3 \cong \angle 1$

3.  $\angle 5 \cong \angle 1$

4.  $\angle 5 \cong \angle 3$

1. Given

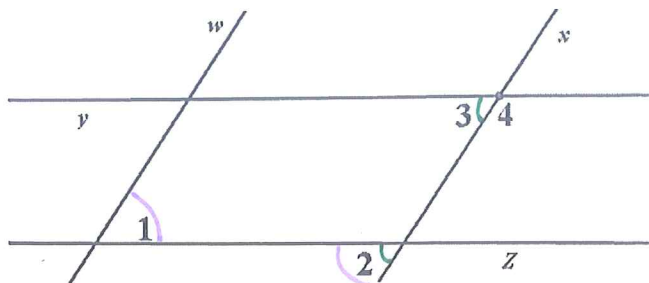
2. // lines form  $\cong$  alt int  $\angle$ s

3. Substitution

4. substitution

2. Given:  $w \parallel x$  and  $y \parallel z$

Prove:  $\angle 1$  and  $\angle 4$  are supplementary



1.  $w \parallel x$  and  $y \parallel z$

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

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

4.  $\angle 3 + \angle 4 = 180$

5.  $\angle 2 + \angle 4 = 180$

6.  $\angle 1 + \angle 4 = 180$

7.  $\angle 1$  and  $\angle 4$  are supplementary

1. given

2. // lines form  $\cong$  alt int  $\angle$ s.

3. // lines form  $\cong$  corr.  $\angle$ s.

4. linear pairs are suppl.

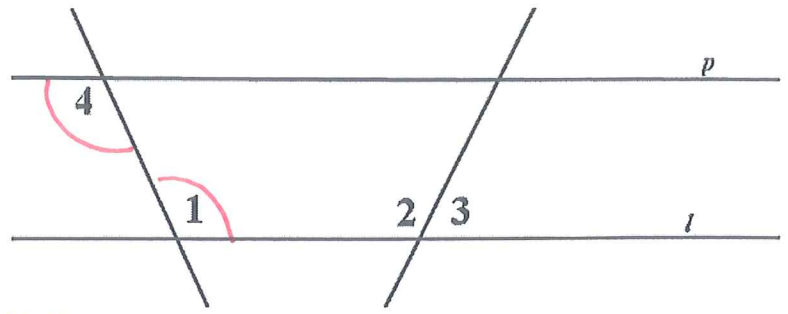
5. substitution

6. substitution

7. def of

3. Given:  $\angle 1 \cong \angle 2$  and  $l \parallel p$

Prove:  $\angle 3 + \angle 4 = 180^\circ$



1.  $\angle 1 \cong \angle 2$  and  $l \parallel p$

2.  $\angle 1 \cong \angle 4$

3.  $\angle 2 + \angle 3 = 180$

4.  $\angle 1 + \angle 3 = 180$

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

1. Given

2. || lines form  $\cong$  alt int  $\angle$ s

3. linear pairs are Suppl.

4. substitution

5. substitution