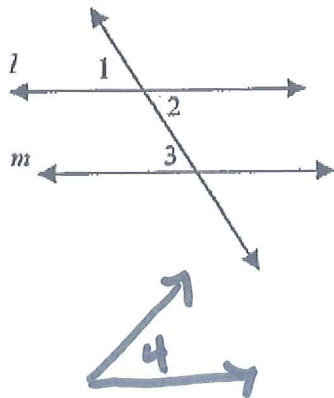


Write a two-column proof for each of the following.

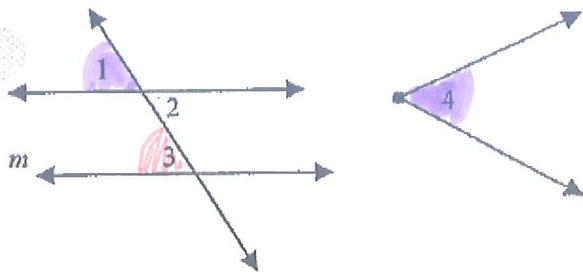
1. Given: $l \parallel m$; $\angle 2 \cong \angle 4$
Prove: $\angle 4 \cong \angle 3$



1. $l \parallel m$
 $\angle 2 \cong \angle 4$
2.) $\angle 2 \cong \angle 3$
3.) $\angle 4 \cong \angle 3$

1. given
2.) \parallel lines form
 \cong alt. int. \angle s
3.) substitution

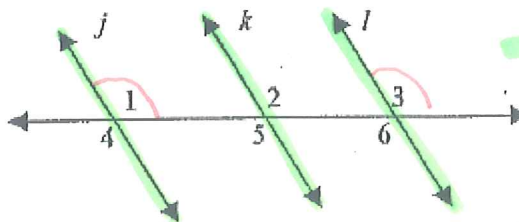
2. Given: $l \parallel m$; $\angle 1 \cong \angle 4$
Prove: $\angle 3 \cong \angle 4$



1. $l \parallel m$
 $\angle 1 \cong \angle 4$
2.) $\angle 1 \cong \angle 3$
3.) $\angle 3 \cong \angle 4$

1. given
2.) \parallel lines form
 \cong corr. \angle s.
3. substitution

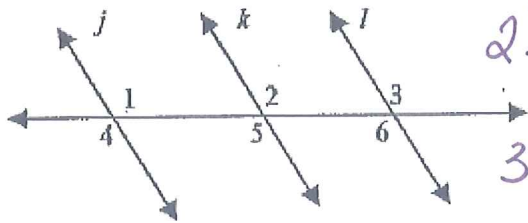
3. Given: $j \parallel k$, $k \parallel l$
Prove: $\angle 1 \cong \angle 3$



1. $j \parallel k$
 $k \parallel l$
2.) $j \parallel l$
3.) $\angle 1 \cong \angle 3$

1. given
2.) substi.
3.) \parallel lines
form \cong
corr. \angle s.

4. Given: $j \parallel k, k \parallel l$
 Prove: $\angle 1 \cong \angle 6$



1.) $j \parallel k$
 $k \parallel l$

2.) $j \parallel l$

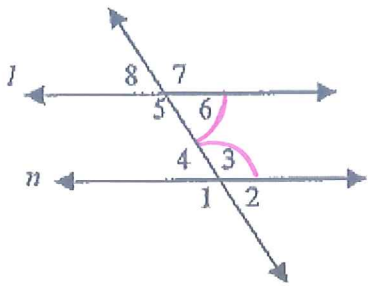
3.) $\angle 1 \cong \angle 6$

1.) given

2.) subs.

3.) \parallel lines form
 \cong alt. int. \angle s.

6. Given: $l \parallel n$
 Prove: $m\angle 3 + m\angle 6 = 180^\circ$



1. $l \parallel n$

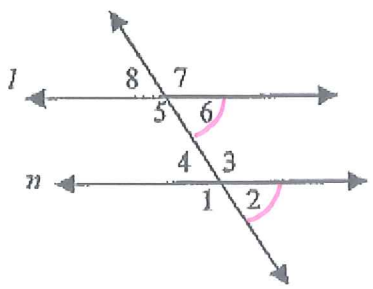
2. $\angle 3 + \angle 6 = 180^\circ$

1. given

2. \parallel lines form
 suppl. consecutive
 int. \angle 's

many ways to prove this.

7. Given: $l \parallel n$
 Prove: $m\angle 2 + m\angle 7 = 180^\circ$



1. $l \parallel n$

2. $\angle 2 \cong \angle 6$

3. $\angle 6 + \angle 7 = 180^\circ$

4. $\angle 2 + \angle 7 = 180^\circ$

1. given

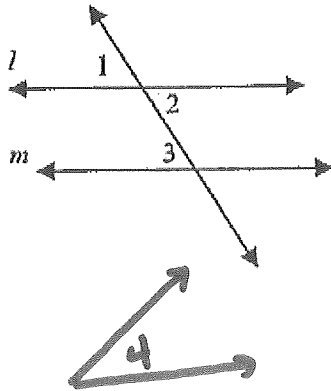
2. \parallel lines form \cong
 Corr. \angle s.

3. linear pairs are
 Suppl.

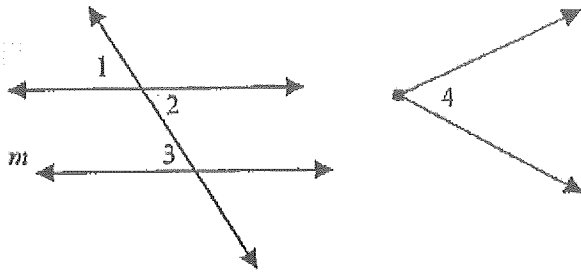
4. substitution.

Write a two-column proof for each of the following.

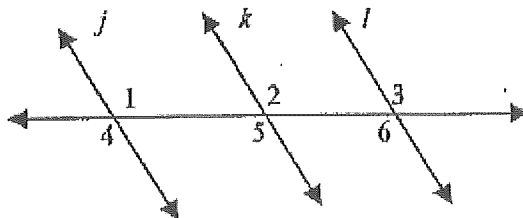
1. Given: $l \parallel m$; $\angle 2 \cong \angle 4$
Prove: $\angle 4 \cong \angle 3$



2. Given: $l \parallel m$; $\angle 1 \cong \angle 4$
Prove: $\angle 3 \cong \angle 4$

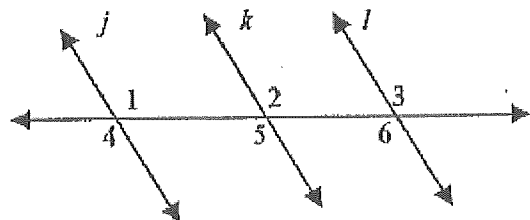


3. Given: $j \parallel k$, $k \parallel l$
Prove: $\angle 1 \cong \angle 3$



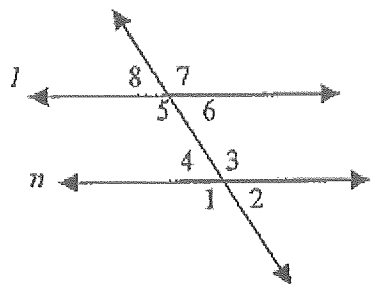
4. Given: $j \parallel k, k \parallel l$

Prove: $\angle 1 \cong \angle 6$



6. Given: $l \parallel n$

Prove: $m\angle 3 + m\angle 6 = 180^\circ$



7. Given: $l \parallel n$

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

