

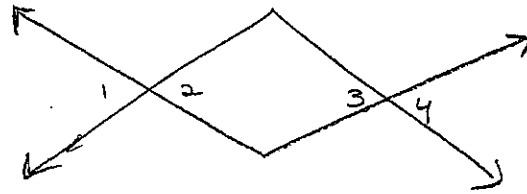
**Geometry Honors  
Proof Template**

Name \_\_\_\_\_

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Diagram:

Given:  $\angle 2 \cong \angle 3$



Prove:  $\angle 1 \cong \angle 4$

| Statement  | Reason                    |
|--|---------------------------|
| 1. $\angle 1 \cong \angle 2 ; \angle 3 \cong \angle 4$ | 1. Vert. $\angle^s \cong$ |
| 2. $\angle 2 \cong \angle 3$                           | 2. Given                  |
| 3. $\angle 1 \cong \angle 4$                           | 3. Transitive (twice)     |
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**Geometry Honors  
Proof Template**

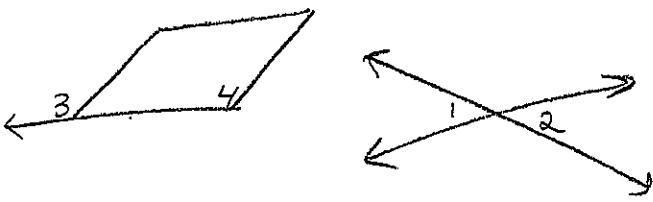
Name \_\_\_\_\_

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Diagram:

Given:  $\angle 3$  supp. to  $\angle 1$   
 $\angle 4$  supp. to  $\angle 2$

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



| Statement                         | Reason   |
|-----------------------------------|--|
| 1. $\angle 3$ supp. to $\angle 1$ | 1. Given   |
| $\angle 4$ supp. to $\angle 2$    |  |
| 2. $\angle 1 \cong \angle 2$      | 2. Vert. $\angle^s \cong$                          |
| 3. $\angle 3 \cong \angle 4$      | 3. 2 $\angle^s$ supp. $\cong \angle^s$ are $\cong$ |
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**Geometry Honors  
Proof Template**

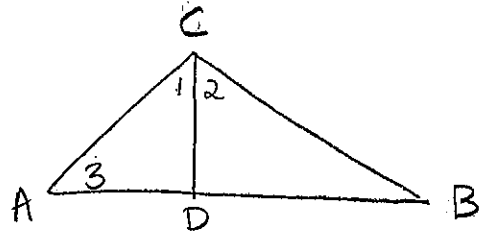
Name \_\_\_\_\_

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Diagram:

Given:  $\overline{AC} \perp \overline{BC}$   
 $\angle 3$  comp. to  $\angle 1$

Prove:  $\angle 3 \cong \angle 2$



| Statement                              | Reason   |
|--|--|
| 1. $\overline{AC} \perp \overline{BC}$ | 1. Given   |
| 2. $\angle 2$ comp. to $\angle 1$      | 2. Ext. sides & adj. acute $\angle^s \perp \rightarrow \angle^s$ are comp. |
| 3. $\angle 3$ comp. to $\angle 1$      | 3. Given   |
| 4. $\angle 3 \cong \angle 2$           | 4. 2 $\angle^s$ comp. of same $\angle \rightarrow \angle^s \cong$          |
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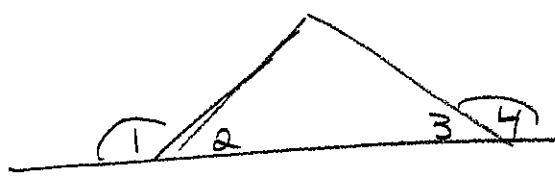
**Geometry Honors  
Proof Template**

Name \_\_\_\_\_

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Diagram:

Given:  $m\angle 1 = m\angle 4$



Prove:  $m\angle 2 = m\angle 3$

| Statement  | Reason                  |
|--|-------------------------|
| 1. $m\angle 1 = m\angle 4$                         | 1. Given                |
| 2. $m\angle 1 + m\angle 2 = 180$                   | 2. $\angle$ Add'n Post. |
| $m\angle 3 + m\angle 4 = 180$                      |                         |
| 3. $m\angle 1 + m\angle 2 = m\angle 3 + m\angle 4$ | 3. Subst.               |
| 4. $m\angle 2 = m\angle 3$                         | 4. Subtraction prop.    |
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