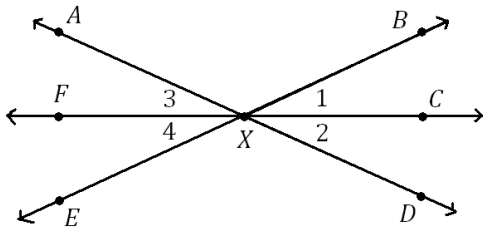


**1**

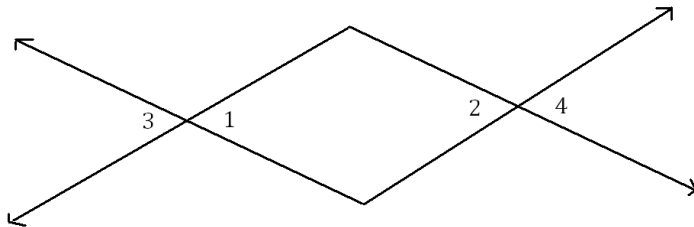


**Given:**  $\angle 1 \cong \angle 2$   
**Prove:**  $\overrightarrow{XF}$  bisects  $\angle AXE$

1.  $\angle 1 \cong \angle 2$
2.  $\angle 1 \cong \angle 4$ ;  
 $\angle 2 \cong \angle 3$
3.  $\angle 3 \cong \angle 4$
4.  $\overrightarrow{XF}$  bisects  $\angle AXE$

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**2**

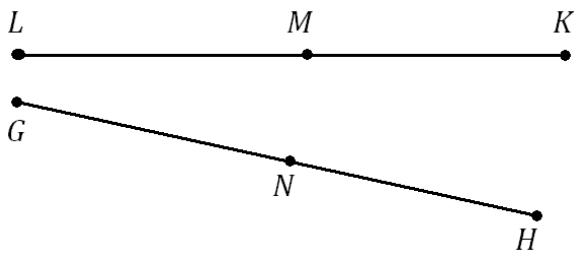


**Given:**  $\angle 1 \cong \angle 2$   
**Prove:**  $\angle 3 \cong \angle 4$

1.  $\angle 1 \cong \angle 2$
2.  $\angle 1 \cong \angle 3$ ;  
 $\angle 2 \cong \angle 4$
3.  $\angle 3 \cong \angle 4$

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**3**



**Given:**  $M$  is the midpoint of  $\overline{LK}$ ;  
 $N$  is the midpoint of  $\overline{GH}$ ;  
 $LK = GH$

**Prove:**  $MK = NH$

1.  $M$  is the midpoint of  $\overline{LK}$

2.  $MK = \frac{1}{2}LK$

3.  $N$  is the midpoint of  $\overline{GH}$

4.  $NH = \frac{1}{2}GH$

5.  $LK = GH$

6.  $\frac{1}{2}LK = \frac{1}{2}GH$

7.  $MK = NH$

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

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

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

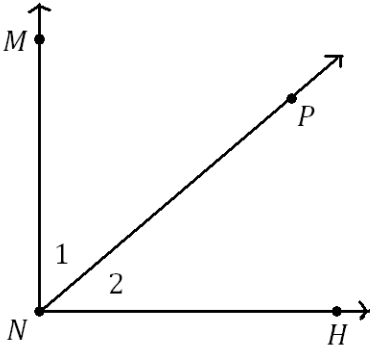
4. \_\_\_\_\_

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

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

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

4



**Given:**  $\overline{MN} \perp \overline{NH}$ ;  
 $\overline{NP}$  bisects  $\angle MNH$

**Prove:**  $m\angle 1 = 45$  and  
 $m\angle 2 = 45$

1.  $\overline{NP}$  bisects  $\angle MNH$
2.  $m\angle 1 = \frac{1}{2}(m\angle MNH)$ ;  
 $m\angle 2 = \frac{1}{2}(m\angle MNH)$
3.  $\overline{MN} \perp \overline{NH}$
4.  $m\angle MNH = 90$
5.  $m\angle 1 = \frac{1}{2}(90)$ ;  
 $m\angle 2 = \frac{1}{2}(90)$
6.  $m\angle 1 = 45$ ;  
 $m\angle 2 = 45$

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \*\*\* MATH \*\*\*