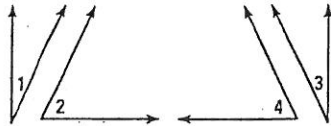


Intro to Proofs #3

Your Initials: \_\_\_\_\_

Complete each proof.

1. GIVEN:  $\angle 1$  and  $\angle 2$  are complements,  
 $\angle 3$  and  $\angle 4$  are complements,  
 $\angle 2 \cong \angle 4$   
 PROVE:  $\angle 1 \cong \angle 3$

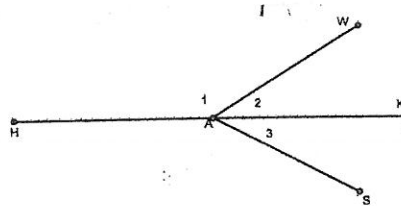


Statements	Reasons
1. $\angle 1$ and $\angle 2$ are complements, $\angle 3$ and $\angle 4$ are complements, $\angle 2 \cong \angle 4$	1. ?
2. ?	2. Def. of complementary angles
3. $m\angle 3 + m\angle 4 = 90^\circ$	3
4.	4. Transitive property of equality
5.	5.
6.	6.

2.

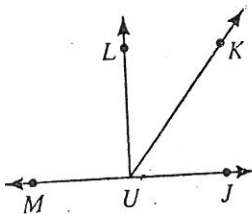
- Given: ray AK bisects  $\angle WAS$   
 $m\angle 3 = 60^\circ$

Prove:  $m\angle 1 = 120^\circ$



Statement	Reason
<b>1</b>	<b>1</b>
<b>2</b>	<b>2</b>
<b>3</b>	<b>3</b>
<b>4</b>	<b>4</b>
<b>5</b>	<b>5</b>
<b>6</b>	<b>6</b>
<b>7</b>	<b>7</b>

3. Given:  $\vec{UL} \perp \vec{MJ}$   
 $m\angle JUK = 37$   
 Prove:  $m\angle LUK = 53$



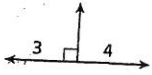
Statements	Reasons
a.	a.
b.	b.
c.	c.
d.	d.
e.	e.
f.	f.

4. Given:  $\angle A$  &  $\angle B$  are supplementary  
 $\angle B$  &  $\angle C$  are supplementary

Prove:  $\angle A = \angle C$

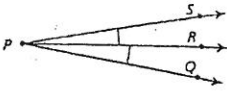
Statements	Reasons
a.	a.
b.	b.
c.	c.
d.	d.
e.	e.
f.	f.

5. Given:  $\angle 3$  is a right angle.  
 Prove:  $\angle 4$  is a right angle.



Statements	Reasons
a.	a.
b.	b.
c.	c.
d.	d.
e.	e.
f.	f.

6. Given:  $\overrightarrow{PR}$  bisects  $\angle SPQ$   
 Prove:  $2(\angle RPQ) = \angle SPQ$



Statements	Reasons
a.	a.
b.	b.
c.	c.
d.	d.
e.	e.

7. Use the given flowchart proof to write a two-column proof.

Given:  $\angle 3$  is a right angle.  
 Prove:  $\angle 4$  is a right angle.

