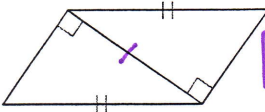
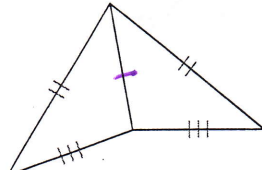
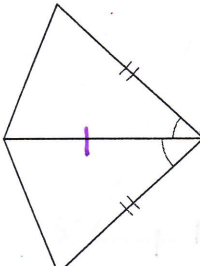


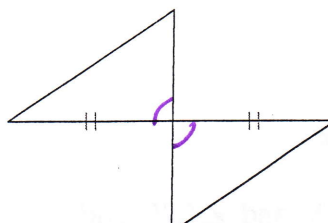
Triangle Congruence--SAS and HL

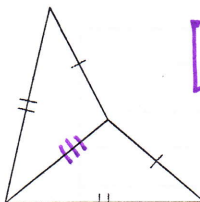
State if the two triangles are congruent. If they are, state how you know.

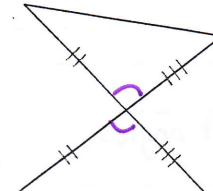
1)  yes, by HL

2)  yes, by SSS

3)  yes, by SAS

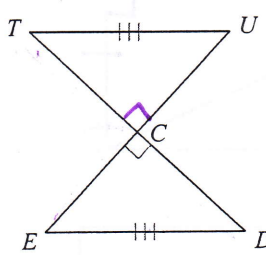
4)  no

5)  yes, by SSS

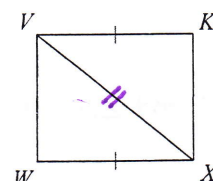
6)  yes, by SAS

State what additional information is required in order to know that the triangles are congruent for the reason given.

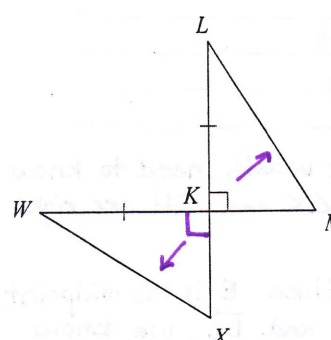
7) HL either:

  $\overline{TC} \cong \overline{EC}$   
or  
 $\overline{TC} \cong \overline{CD}$   
or  
 $\overline{CU} \cong \overline{CD}$   
or  
 $\overline{CU} \cong \overline{CE}$

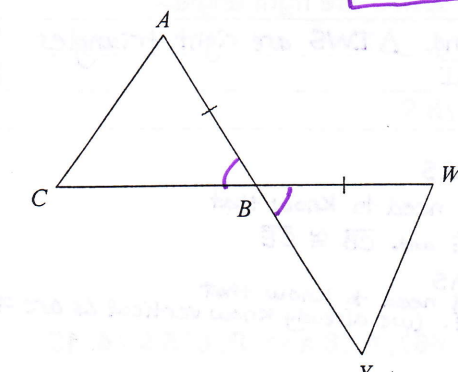
8) SSS  $\overline{VW} \cong \overline{KX}$



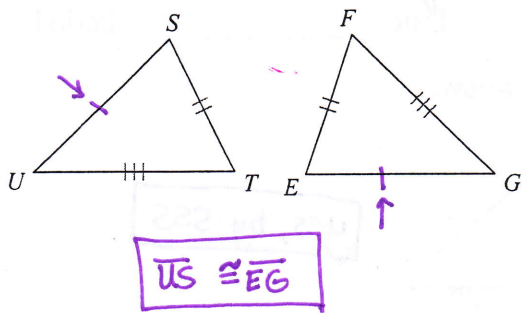
9) HL  $\overline{LM} \cong \overline{WX}$



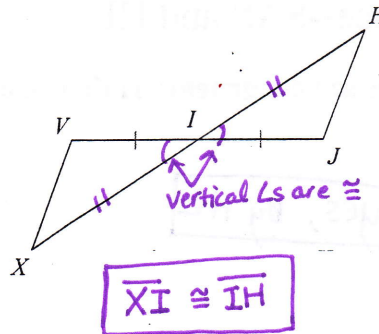
10) SAS  $\overline{CB} \cong \overline{BY}$



11) SSS



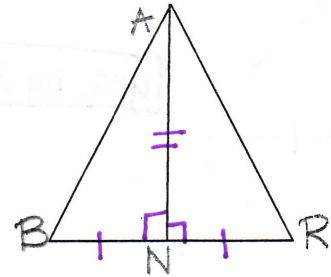
12) SAS



13. Complete the proof

Given:  $\overline{BN} \cong \overline{RN}$  and  $\angle ANR$  and  $\angle ANB$  are right angles

Prove:  $\triangle ABN \cong \triangle ARN$

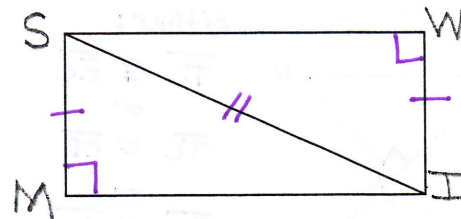


STATEMENTS	REASONS
1. $\overline{BN} \cong \overline{RN}$	1. Given
2. $\angle ANR$ and $\angle ANB$ are right angles	2. Given
3. $\angle ANR \cong \angle ANB$	3. All right $\angle$ s are $\cong$
4. $\overline{AN} \cong \overline{AN}$	4. Reflexive Prop.
5. $\triangle ABN \cong \triangle ARN$	5. SAS

14. Complete the proof

Given:  $\overline{SM} \cong \overline{IW}$ ,  $\angle SMI$  and  $\angle IWS$  are right angles

Prove:  $\triangle SMI \cong \triangle IWS$



STATEMENTS	REASONS
1. $\overline{SM} \cong \overline{IW}$	1. Given
2. $\angle SMI$ and $\angle IWS$ are right angles	2. Given
3. $\triangle SMI$ and $\triangle IWS$ are right triangles	3. Definition of Right Triangles
4. $\overline{SI} \cong \overline{SI}$	4. Reflexive Property
5. $\triangle SMI \cong \triangle IWS$	5. HL

p. 667 #18 a. SSS

we would need to know that  $\overline{AB} \cong \overline{DE}$  and  $\overline{CB} \cong \overline{CE}$

b. SAS

we would need to know that  $\overline{CB} \cong \overline{CE}$ . (we already know vertical  $\angle$ s are  $\cong$ )

Complete P. 667, # 18 and P. 675 # 14, 15

p. 675 (14) No; we would need to know that  $\angle K$  and  $\angle H$  are right  $\angle$ s.

(15) Yes; Since E is the midpoint of  $\overline{AD}$  and  $\overline{BC}$ , we know  $\overline{AE} \cong \overline{ED}$  and  $\overline{BE} \cong \overline{EC}$  and  $\angle A \cong \angle D$   
 (leg) (hypotenuse) (right  $\angle$ s)