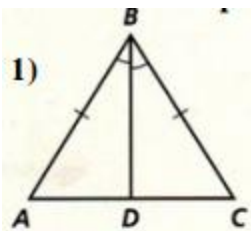


Name: \_\_\_\_\_ Hr: \_\_\_\_\_

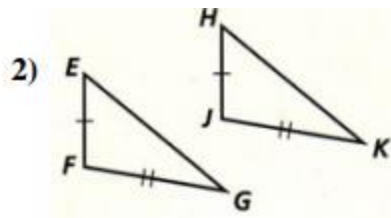
### 8.1A Congruent Triangles

- A) Determine whether the following triangles are congruent.
- B) If they are, name the triangle congruence (Pay attention to proper correspondence when naming the triangles) and then identify the theorem or postulate (SSS, SAS, ASA, AAS, HL) that supports your conclusion.
- C) Be sure to show any additional congruence markings you used in your reasoning.
- D) If the triangles cannot be proven congruent, state "not possible." Then give the reason it is not possible.



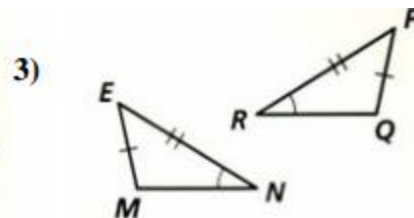
Congruence:  
 $\triangle ABD \cong \triangle$  \_\_\_\_\_

Reason:



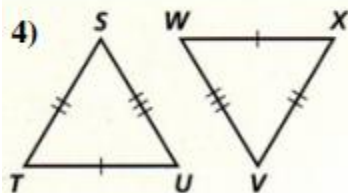
Congruence:  
 $\triangle EFG \cong \triangle$  \_\_\_\_\_

Reason:



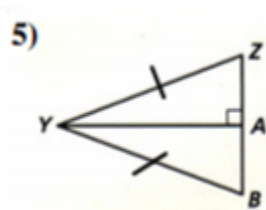
Congruence:  
 $\triangle EMN \cong \triangle$  \_\_\_\_\_

Reason:



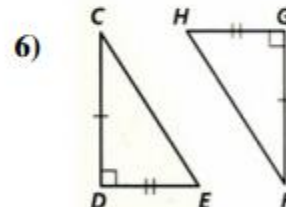
Congruence:  
 $\triangle STU \cong \triangle$  \_\_\_\_\_

Reason:



Congruence:  
 $\triangle YZA \cong \triangle$  \_\_\_\_\_

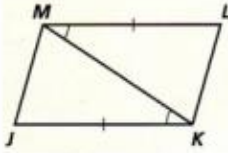
Reason:



Congruence:  
 $\triangle CDE \cong \triangle$  \_\_\_\_\_

Reason:

7)

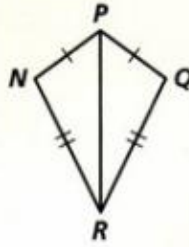


Congruence:

$\triangle KJM \cong \triangle$  \_\_\_\_\_

Reason:

8)

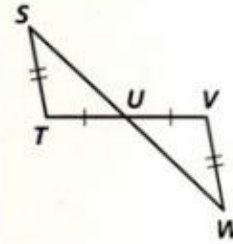


Congruence:

$\triangle NPR \cong \triangle$  \_\_\_\_\_

Reason:

9)

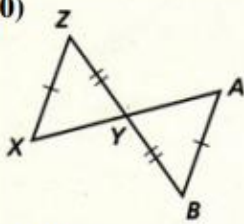


Congruence:

$\triangle STU \cong \triangle$  \_\_\_\_\_

Reason:

10)

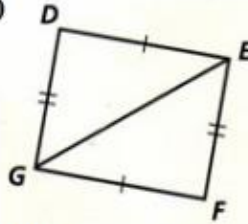


Congruence:

$\triangle XYZ \cong \triangle$  \_\_\_\_\_

Reason:

11)

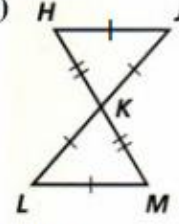


Congruence:

$\triangle DEG \cong \triangle$  \_\_\_\_\_

Reason:

12)

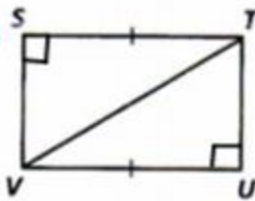


Congruence:

$\triangle HJK \cong \triangle$  \_\_\_\_\_

Reason:

13)

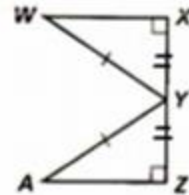


Congruence:

$\triangle STV \cong \triangle$  \_\_\_\_\_

Reason:

14)

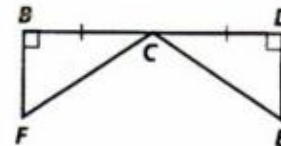


Congruence:

$\triangle WXY \cong \triangle$  \_\_\_\_\_

Reason:

15)

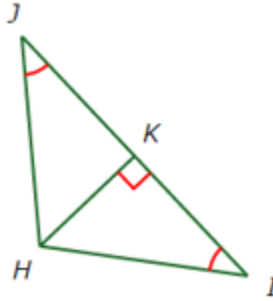


Congruence:

$\triangle BCF \cong \triangle$  \_\_\_\_\_

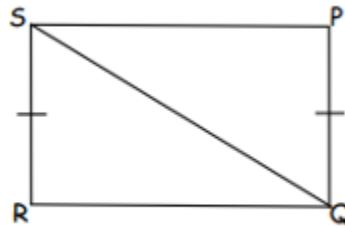
Reason:

16. Given:  $\angle I \cong \angle J$   
 $\overline{HK} \perp \overline{IJ}$   
 Prove:  $\overline{JK} \cong \overline{IK}$



Statement	Reason
1. $\angle I \cong \angle J$	1.
2. $\overline{HK} \perp \overline{IJ}$	2.
3. $\angle HKI$ and $\angle HKJ$ are right angles	3.
4. $\angle HKI \cong \angle HKJ$	4.
5. $\overline{HK} \cong \overline{HK}$	5.
6. $\triangle HKI \cong \triangle HKJ$	6.
7. $\overline{JK} \cong \overline{IK}$	7.

17. Given:  $\overline{RS} \cong \overline{PQ}$   
 $\angle P$  and  $\angle R$  are right angles  
 Prove:  $\triangle PQS \cong \triangle RSQ$



Statement	Reason
1. $\overline{RS} \cong \overline{PQ}$	1.
2. $\angle P$ and $\angle R$ are right angles	2.
3. $\triangle PQS$ and $\triangle RSQ$ are right triangles	3.
4. $\overline{SQ} \cong \overline{SQ}$	4.
5. $\triangle PQS \cong \triangle RSQ$	5.