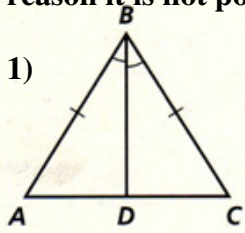


Geometry  
Worksheet – Congruent Triangles

NAME \_\_\_\_\_

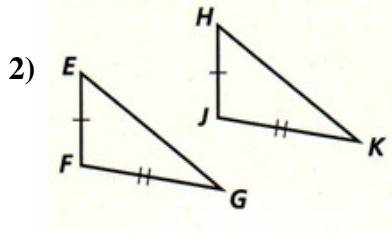
Date \_\_\_\_\_ HR \_\_\_\_\_

- 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 given the reason it is not possible.



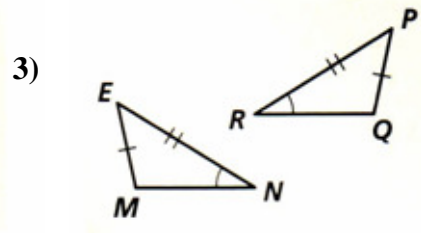
Congruence:  
 $\triangle ABD \cong \triangle$  \_\_\_\_\_

Reason:



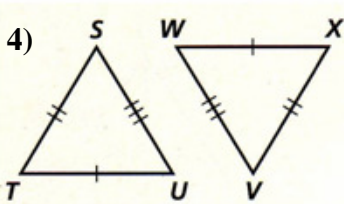
Congruence:  
 $\triangle EFG \cong \triangle$  \_\_\_\_\_

Reason:



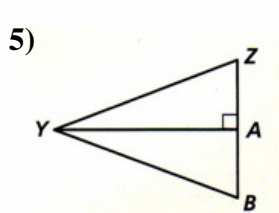
Congruence:  
 $\triangle EMN \cong \triangle$  \_\_\_\_\_

Reason:



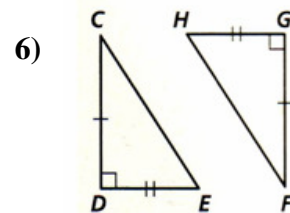
Congruence:  
 $\triangle STU \cong \triangle$  \_\_\_\_\_

Reason:



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

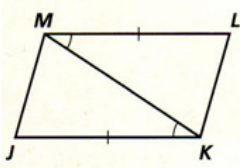
Reason:



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

Reason:

7)

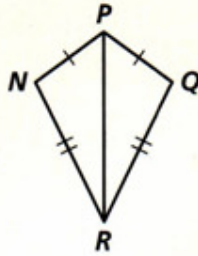


Congruence:

$\Delta KJM \cong \Delta$  \_\_\_\_\_

Reason:

8)

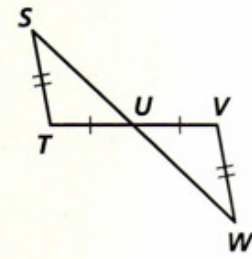


Congruence:

$\Delta NPR \cong \Delta$  \_\_\_\_\_

Reason:

9)

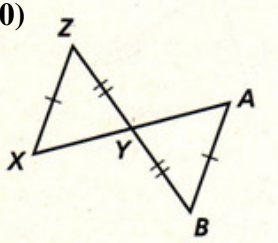


Congruence:

$\Delta STU \cong \Delta$  \_\_\_\_\_

Reason:

10)

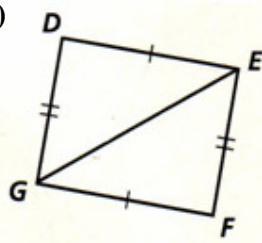


Congruence:

$\Delta XYZ \cong \Delta$  \_\_\_\_\_

Reason:

11)

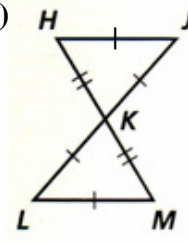


Congruence:

$\Delta DEG \cong \Delta$  \_\_\_\_\_

Reason:

12)

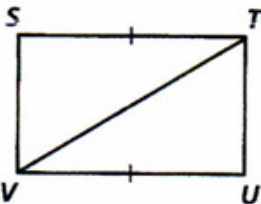


Congruence:

$\Delta HJK \cong \Delta$  \_\_\_\_\_

Reason:

13)

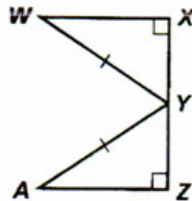


Congruence:

$\Delta STV \cong \Delta$  \_\_\_\_\_

Reason:

14)

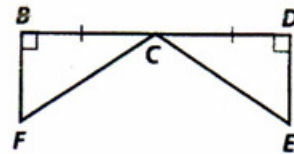


Congruence:

$\Delta WXY \cong \Delta$  \_\_\_\_\_

Reason:

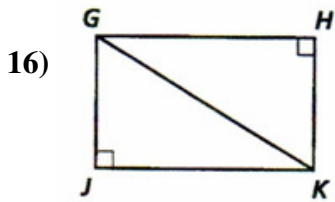
15)



Congruence:

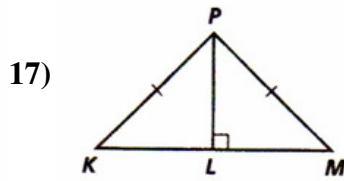
$\Delta BCF \cong \Delta$  \_\_\_\_\_

Reason:



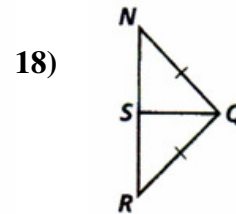
Congruence:  
 $\Delta GJK \cong \Delta$  \_\_\_\_\_

Reason:



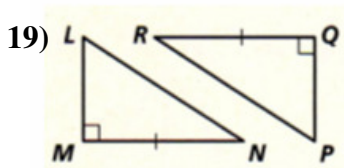
Congruence:  
 $\Delta KLP \cong \Delta$  \_\_\_\_\_

Reason:



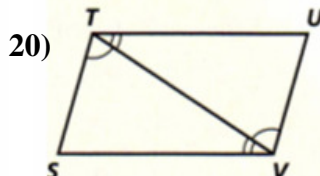
Congruence:  
 $\Delta NSQ \cong \Delta$  \_\_\_\_\_

Reason:



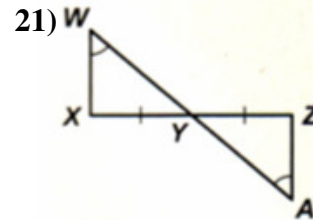
Congruence:  
 $\Delta LMN \cong \Delta$  \_\_\_\_\_

Reason:



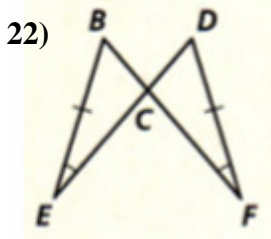
Congruence:  
 $\Delta STV \cong \Delta$  \_\_\_\_\_

Reason:



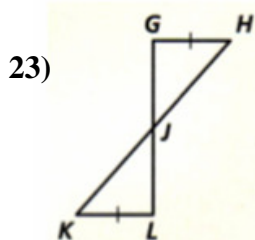
Congruence:  
 $\Delta WXY \cong \Delta$  \_\_\_\_\_

Reason:



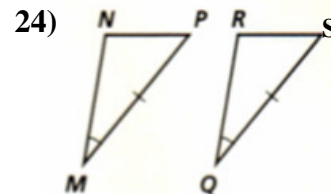
Congruence:  
 $\Delta BCE \cong \Delta$  \_\_\_\_\_

Reason:



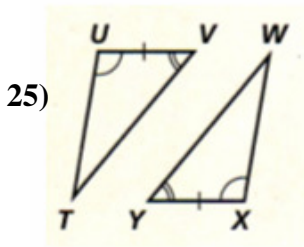
Congruence:  
 $\Delta GHJ \cong \Delta$  \_\_\_\_\_

Reason:



Congruence:  
 $\Delta NPM \cong \Delta$  \_\_\_\_\_

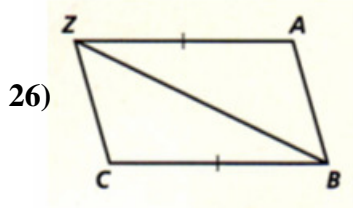
Reason:



Congruence:

$\Delta TUV \cong \Delta$  \_\_\_\_\_

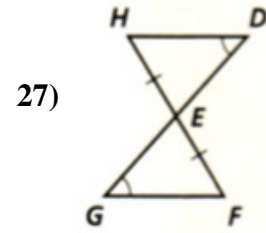
Reason:



Congruence:

$\Delta BCZ \cong \Delta$  \_\_\_\_\_

Reason:

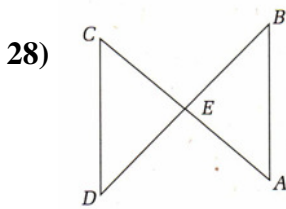


Congruence:

$\Delta EFG \cong \Delta$  \_\_\_\_\_

Reason:

Use the given information to mark the diagram appropriately. 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 would be used to prove the triangles congruent. If the triangles cannot be proven congruent, state “not possible.”

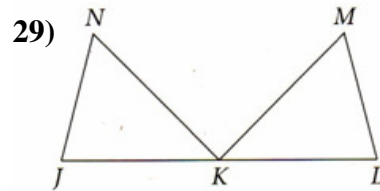


Given:  $\overline{CD} \cong \overline{AB}$ ;  $\angle B \cong \angle D$

Congruence:

$\Delta CDE \cong \Delta$  \_\_\_\_\_

Reason:

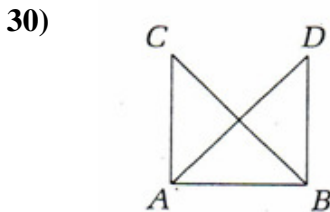


Given:  $\overline{JN} \cong \overline{LM}$ ;  $\overline{NK} \cong \overline{MK}$ ;  
 $\angle N \cong \angle M$

Congruence:

$\Delta JKN \cong \Delta$  \_\_\_\_\_

Reason:

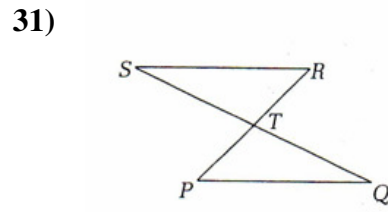


Given:  $\overline{AC} \cong \overline{BD}$ ;  $\overline{AD} \cong \overline{BC}$

Congruence:

$\Delta ABC \cong \Delta$  \_\_\_\_\_

Reason:



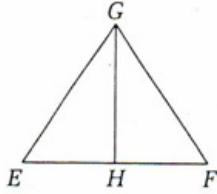
Given:  $\overline{SQ}$  and  $\overline{PR}$  bisect each other

Congruence:

$\Delta RST \cong \Delta$  \_\_\_\_\_

Reason:

32)



Given:  $\overline{GH}$  bisects  $\angle EGF$  ;  
 $\overline{EG} \cong \overline{FG}$

Congruence:  $\triangle EGH \cong \triangle$  \_\_\_\_\_

Reason:

Now choose one of the problems from 28-32 and create a flow chart proof. Then transform your flow chart proof into a 2 column proof. Your “given” will be the “Given” from the problem and your “prove” will be the “Congruence” statement you created.