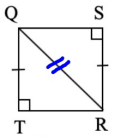
1. Given: $\Delta LMN \cong \Delta UVW$. Complete the statements.

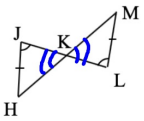
A. $\overline{UW} \cong$ LN B. $\overline{VW} \cong$ MN C. $\overline{LM} \cong$ UV

D. $\angle M \cong \angle$V E. $\angle U \cong \angle$L F. $\angle N \cong \angle$W

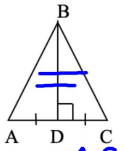
For 2-11, state the postulate or theorem (SSS, SAS, ASA, AAS, or HL) that could be used to prove the triangles congruent. If the triangles cannot be proven congruent, write not possible.

2. 

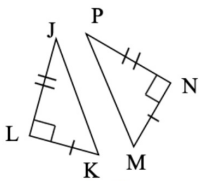
HL

3. 

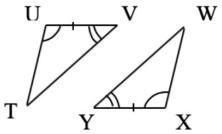
AAS

4. 

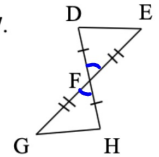
SAS

5. 

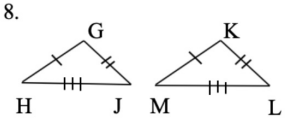
SAS

6. 

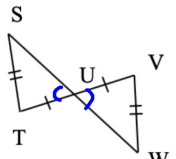
ASA

7. 

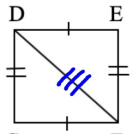
SAS

8. 

SSS

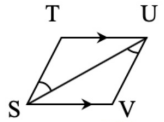
9. 

NP

10. 

SSS

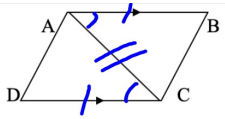
11.



NP

For 12 and 13, complete each proof.

12.

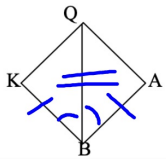


Given: $\overline{AB} \parallel \overline{DC}$, $\overline{AB} \cong \overline{CD}$
Prove: $\Delta ABC \cong \Delta CDA$

Statements	Reasons
1. $\overline{AB} \cong \overline{CD}$	1. Given
2. $\overline{AC} \cong \overline{AC}$	2. Refl. prop
3. $\overline{AB} \parallel \overline{DC}$	3. Given
4. $\angle BAC \cong \angle DCA$	4. Alt int $\angle$s are $\cong$.
5. $\Delta ABC \cong \Delta CDA$	5. SAS

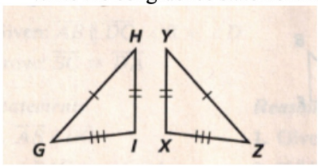
13.

Given: $KB \cong AB$; BQ bisects $\angle KBA$
Prove: $\Delta KBQ \cong \Delta ABQ$

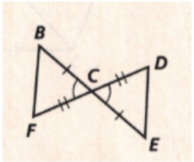


Statements	Reasons
1. KB ≅ AB	1. Given
2. BQ bisects ∠KBA	2. Given
3. ∠KBQ ≅ ∠ABQ	3. Def of ∠ bisector
4. QB ≅ QB	4. Refl. prop.
5. △KBQ ≅ △ABQ	5. SAS

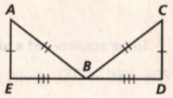
1. Name the congruence postulate that proves the 2 triangles below are congruent: SSS
Write the congruence statement for the triangles: $\Delta HGI \cong \Delta YZX$

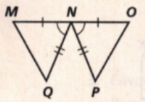


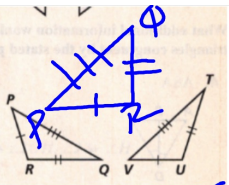
2. Name the congruence postulate that proves the 2 triangles below are congruent: SAS
Write the congruence statement for the triangles: △BCF ≅ △ECD



Name the triangle congruence postulate you can use to prove each pair of triangles congruent. Then state the triangle congruence.

3. 

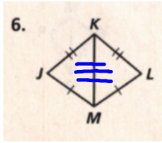
4. 

5. 

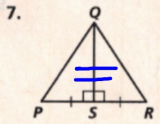
Postulate: SSS
≅ statement: △ABE ≅ △CBD

Postulate: SAS
≅ statement: △MQN ≅ △DPN

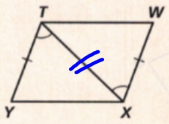
Postulate: SSS
≅ statement: △QRP ≅ △TUV

6. 

Postulate: SSS
≅ statement: △KJM ≅ △KLM

7. 

Postulate: SAS
≅ statement: △QPS ≅ △QRS

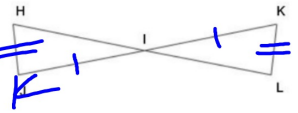
8. 

Postulate: SAS
≅ statement: △TXY ≅ △XTW

9. If $\overline{HL}$ bisects $\overline{JK}$ and $\overline{HJ} \cong \overline{KL}$ what other information do you need to prove the two triangles congruent by each postulate?

a) SSS: HI ≅ IL

b) SAS: ∠J ≅ ∠K

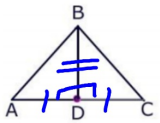


c) Write the congruence statement for the two triangles.
△HIJ ≅ △LIK

10. Complete the proof.

Given: D is the midpoint of $\overline{AC}$ and $\overline{BD} \perp \overline{AC}$

Prove: $\Delta ABD \cong \Delta CBD$



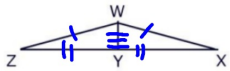
Statements	Justifications
D is the midpoint of $\overline{AC}$	Given Def of midpt
	Given
	Definition of perpendicular lines
	All right angles are congruent
$\overline{BD} \cong \overline{BD}$	Reflexive
$\Delta ABD \cong \Delta CBD$	SAS

11. Complete the proof:

Given: $\overline{WZ} \cong \overline{WX}$

$\overline{WY}$ bisects $\overline{ZX}$

Prove: $\Delta WYZ \cong \Delta WYX$



Statements	Justifications
$WZ \cong WX$	Given
WY bisects ZX	Given
$ZY \cong YX$	Def bisector
$WY \cong WY$	Reflexive
$\Delta WYZ \cong \Delta WYX$	SSS

Classwork:

- Log on to Agile Mind
- Complete Cwk #20: Topic 9 Practice Test
- Submit a paper copy