

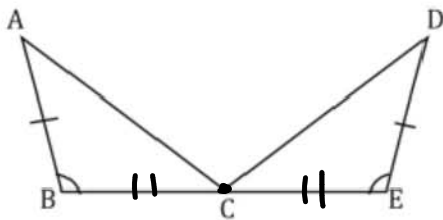
Geometry CC – Mr. Valentino  
 Unit 5 Lesson 5: HOMEWORK!

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_ Period: \_\_\_\_\_

Fill in the Blanks...and an extra CHALLENGE!

Directions: Fill in the blanks for all of the missing statements/reasons in each proof.

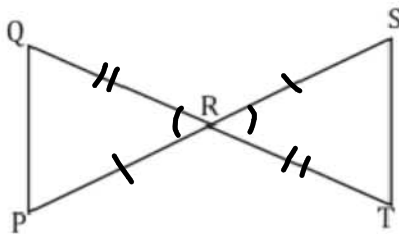
1. Given: C is the midpoint of  $\overline{BE}$ ,  $\angle B \cong \angle E$ , and  $\overline{AB} \cong \overline{DE}$



Prove:  $\triangle ABC \cong \triangle DEC$

Statements	Reasons
1. $\angle B \cong \angle E$	1. Given
2. $\overline{AB} \cong \overline{DE}$	2. Given
3. C is the midpoint of $\overline{BE}$	3. Given
4. $\overline{BC} \cong \overline{EC}$	4. A midpoint divides a segment into 2 $\cong$ segments
5. $\triangle ABC \cong \triangle DEC$	5. SAS $\cong$ SAS

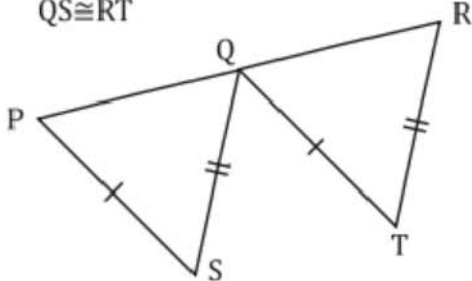
2. Given:  $\overline{QT}$  bisects  $\overline{SP}$ ,  $\overline{SP}$  bisects  $\overline{QT}$



Prove:  $\triangle QRP \cong \triangle SRT$

Statements	Reasons
1. $\overline{QT}$ bisects $\overline{SP}$	1. Given
2. $\overline{SP}$ bisects $\overline{QT}$	2. Given
3. $\overline{QR} \cong \overline{TR}$	3. A segment bisector cuts a segment into 2 $\cong$ segments.
4. $\overline{PR} \cong \overline{SR}$	4.
5. $\angle QRP \cong \angle SRT$	5. Vertical Angles are $\cong$
6. $\triangle QRP \cong \triangle SRT$	6. SAS $\cong$ SAS

3. Given: Q is the midpoint of  $\overline{PR}$ .  $\overline{PS} \cong \overline{QT}$  and  $\overline{QS} \cong \overline{RT}$

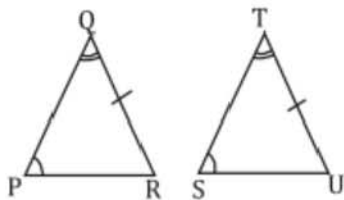


Prove:  $\triangle PQS \cong \triangle RQT$

Statements	Reasons
1.	1. Given
2.	2. Given
3. $\overline{QS} \cong \overline{RT}$	3.
4.	4. A midpoint divides a segment into 2 $\cong$ segments
5. $\triangle ABC \cong \triangle DBC$	5.

Now try filling in a proof completely on your own!

4. Given:  $\angle P \cong \angle S$ ,  $\angle Q \cong \angle T$ , and  $\overline{QR} \cong \overline{TU}$

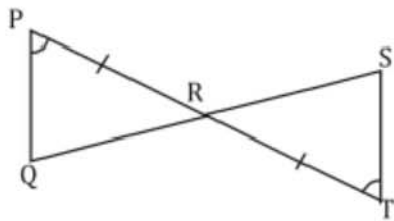


Prove:  $\triangle PQR \cong \triangle STU$

~~AAS~~  
SAA<sup>ok</sup>  
AAS<sup>✓</sup>

	Statement	Reason
1.	$\angle P \cong \angle S$	1. Given
2.	$\angle Q \cong \angle T$	2. Given
3.	$\overline{QR} \cong \overline{TU}$	3. Given
4.	$\triangle PQR \cong \triangle STU$	4. AAS $\cong$ AAS

5. Given:  $\overline{PR} \cong \overline{TR}$ ,  $\angle P \cong \angle T$



Prove:  $\triangle PQR \cong \triangle TSR$

Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.