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

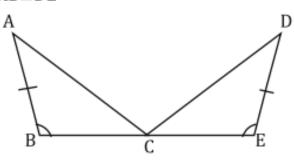
Name: _____

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.

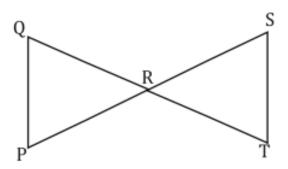
 Given: C is the midpoint of BE, ∠B≅∠E, and AB≅DE



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

| Statements | Reasons |
|--------------|---|
| 1.∠B≅∠E | 1. |
| 2. AB≅DE | 2. |
| 3. | 3. Given |
| | 4. A midpoint divides a segment into $2 \cong$ segments |
| 5. ∆ABC≅∆DEC | 5. SAS \cong SAS |

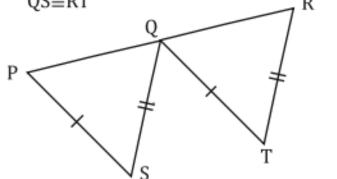
2. Given: \overline{QT} bisects \overline{SP} , \overline{SP} bisects \overline{QT}



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

| Statements | Reasons |
|------------------|--------------------------|
| 1. QT bisects SP | 1. Given |
| 2. | 2. Given |
| 3. QR≅TR | 3. |
| 4. PR≅SR | 4. |
| 5. | 5. Vertical Angles are ≅ |
| 6. △QRP≅△SRT | 6. |

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

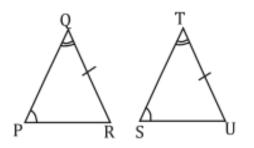


Prove: $\triangle PQS \cong \triangle RQT$

| Statements | Reasons |
|--------------|---|
| 1. | 1. Given |
| 2. | 2. Given |
| 3. QS≅RT | 3. |
| 4. | 4. A midpoint divides a segment into $2 \cong$ segments |
| 5. ∆ABC≅∆DBC | 5. |

Now try filling in a proof completely on your own!

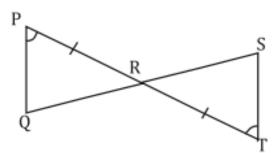
4. Given: $\angle P \cong \angle S$, $\angle Q \cong \angle T$, and $\overline{QR} \cong \overline{TU}$



Prove: △PQR≅△STU

| Statement | Reason |
|-----------|--------|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |

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



Prove: $\triangle ABC \cong \triangle DBC$

| Statement | Reason |
|-----------|--------|
| 1. | 1. |
| 2. | 2. |
| 3. | 3. |
| 4. | 4. |