Name _____ Date _____ Pd _____

CYU 2.5 Geometric Reasoning DAY ONE

☑ *Use when you get it right all by yourself*

S *Use when you did it all by yourself, but made a silly mistake*

H *Use when you could do it alone with a little help from teacher or peer*

G *Use when you completed the problem in a group*

X *Use when a question was attempted but wrong (get help)*

N *Use when a question was not even attempted*

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Addition/Subtraction POE/POC	1		7
Multiplication/Division POE/POC			7
Substitution POE	4		7
Distributive Property			
Reflexive POE/POC	3		
Symmetric POE/POC	3		
Transitive POE/POC	1, 3, 6	5, 6	6, 7
Def. of Complementary/Supplementary Angles	4	2	
Def. of Complement/Supplement		2	
Def. of Congruent Angles/Segments	4		7
Def. of Linear Angles	4		
Def. of Segment Bisector		5	

1. Complete the proof.

Given $PQ = RS$

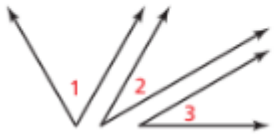
Prove $PR = QS$

STATEMENTS	REASONS
1. $PQ = RS$	1. _____
2. $PQ + QR = RS + QR$	2. _____
3. _____	3. Segment Addition Postulate (Post. 1.2)
4. $RS + QR = QS$	4. Segment Addition Postulate (Post. 1.2)
5. $PR = QS$	5. _____

2. Complete the proof.

Given $\angle 1$ is a complement of $\angle 2$. $\angle 2 \cong \angle 3$

Prove $\angle 1$ is a complement of $\angle 3$.



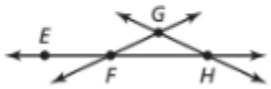
STATEMENTS	REASONS
1. $\angle 1$ is a complement of $\angle 2$.	1. Given
2. $\angle 2 \cong \angle 3$	2. _____
3. $m\angle 1 + m\angle 2 = 90°$	3. _____
4. $m\angle 2 = m\angle 3$	4. Definition of congruent angles
5. _____	5. Substitution Property of Equality
6. $\angle 1$ is a complement of $\angle 3$.	6. _____

3. Name the property that the statement illustrates.
   a. $If\ \overline{PQ} \cong \overline{ST}\ and\ \overline{ST} \cong \overline{UV}, then\ \overline{PQ} \cong \overline{UV}$. _____
   b. $\angle F \cong \angle F$ _____
   c. $If\ \overline{XY} \cong \overline{UV}, then\ \overline{UV} \cong \overline{XY}$. _____

4. Write a two-column proof on your own paper: T, statements, reasons, & numbers.

Given $\angle GFH \cong \angle GHF$

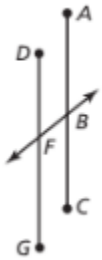
Prove $\angle EFG$ and $\angle GHF$ are supplementary.



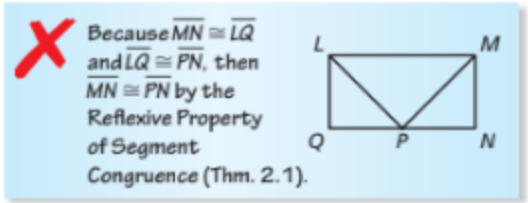
5. Write a two-column proof on your own paper: T, statements, reasons, & numbers.

Given $\overline{AB} \cong \overline{FG}$, $\overline{BF}$ bisects $\overline{AC}$ and $\overline{DG}$.

Prove $\overline{BC} \cong \overline{DF}$



6. In the diagram, $\overline{MN} \cong \overline{LQ}\ and\ \overline{LQ} \cong \overline{PN}$. Describe AND correct the error in the reasoning.



7. Write a two-column proof on your own paper: T, statements, reasons, & numbers. Solve for x using the given information and justify each step.

Given $\overline{QR} \cong \overline{PQ}$, $\overline{RS} \cong \overline{PQ}$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.