Geometry 2.7
Write proofs involving segment addition
Write proofs involving segment congruence
ruler postulate
segment addition postulate
reflexive property of congruence
symmetric "
transitive "

Quiz 2.5-2.6

scrambled proofs
whiteboards

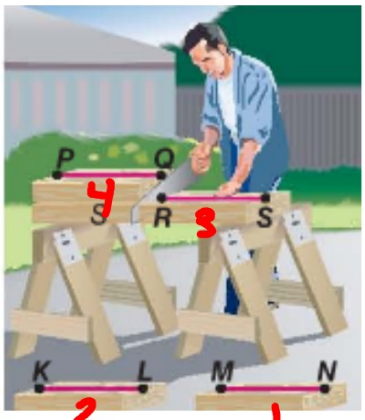
Scrambled proofs

Given:

Prove: pic.

Statement	Reason
1. ~~~	1. Given
prove	4.

2. **CARPENTRY** A carpenter cuts a 2″ × 4″ board to a desired length. He then uses this board as a pattern to cut a second board congruent to the first. Similarly, he uses the second board to cut a third board and the third board to cut a fourth board. Prove that the last board cut has the same measure as the first.



Given

$MN = KL, KL = RS, RS = PQ$

Prove $MN = PQ$

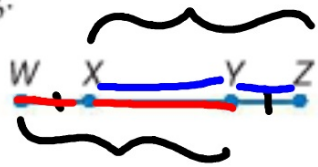
1. $MN = KL, KL = RS, RS = PQ$	1. given
2. $MN = RS$	2. trans
3. $MN = PQ$	3. trans

you need something to substitute with...

2. PROOF Prove the following.

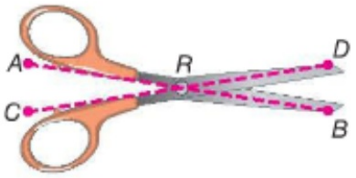
Given: $\overline{WX} \cong \overline{YZ}$

Prove: $\overline{WY} \cong \overline{XZ}$



1. $WX = YZ$	1. given
2. $WX + XY = WY$ $YZ + YX = XZ$	2. seg add
3. $WX + XY = XY + YZ$	3. add prop
4. $WY = XZ$	4. subs.

3 **SCISSORS** Refer to the diagram shown. $\overline{AR}$ is congruent to $\overline{CR}$. $\overline{DR}$ is congruent to $\overline{BR}$. Prove that $AR + DR = CR + BR$.



Are parts of the drawing irrelevant? (might be extra info...)

11. If E is the midpoint of $\overline{DF}$ and $\overline{CD} \cong \overline{FG}$, then $\overline{CE} \cong \overline{EG}$.