Geometry HW #____ Name_____
2-3 and review

Period_____ Column_____

1. Justify each step with an algebra property.

a. $\frac{3}{4}x = 6 + 2x$ given

b. $3x = 4(6+2x)$ _____

c. $3x = 24 + 8x$ _____

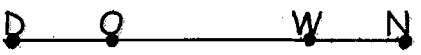
d. $-5x = 24$ _____

e. $x = \frac{-24}{5}$ _____

Complete proofs 2, 3, and 4.

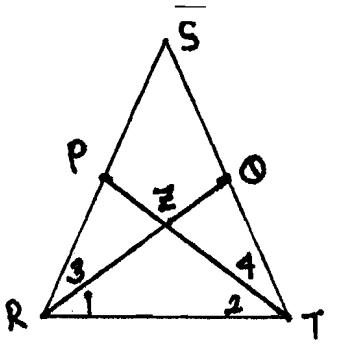
2. Given: DW = ON

Prove: DO = WN



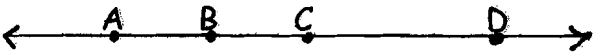
	STATEMENTS	REASONS
1.	DW = ON	1.
2.	DW = DO + OW ON = ____ + ____	2.
3.	DO + OW = OW + WN	3.
4.	OW = OW	4.
5.		5.

3. Given: $m\angle 1 = m\angle 2;\ m\angle 3 = m\angle 4$
Prove: $m\angle SRT = m\angle STR$



STATEMENTS		REASONS
1.	$m\angle 1 = m\angle 2;\ m\angle 3 = m\angle 4$	1.
2.	$m\angle 1 + m\angle 3 = m\angle 2 + m\angle 4$	2.
3.	$m\angle SRT = m\angle 1 +$ _____	3.
	$m\angle STR = m\angle 2 +$ _____	
4.		4.

4. Given: B is the midpoint of $\overline{AC}$
Prove: $AB + CD = BD$



STATEMENTS		REASONS
1.	$BC + CD = BD$	1.
2.		2. given
3.	$AB = BC$	3.
4.	$AB + CD = BD$	4.