Name:_____ Review for Unit 4

Test is Friday 10/25/19

1- What do you use to prove that a statement is true?

2- List some examples for #1

3- Once we have proven a certain theorem can we use it to prove another theorem?

4- What do you know about Angle bisector? Draw a picture to give an example

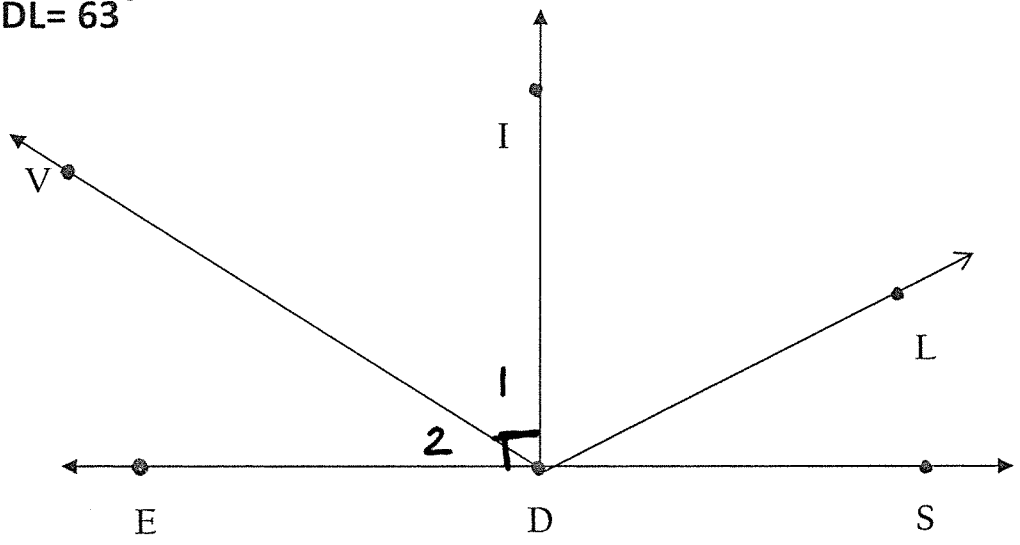
5-

$\overline{BD}$ bisects $\angle ABC$ and $\overline{BE}$ bisects $\angle ABD$.

If $m\angle EBD = 21°$, then what is the measure of $\angle EBC$?

6- $\overrightarrow{DV}$ is the bisector for <EDI

m< IDL= 63°



a- m< 1=_____

b- <1 ≅_____

c- <DIV ≅_____

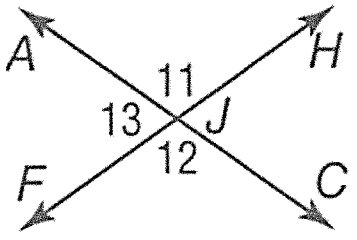
d- m< LDV=_____

7-

. Find the measure of each numbered angle.

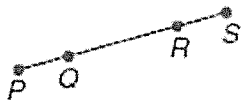
$m\angle 11 = 11x$,

$m\angle 13 = 10x + 12$



8-

Complete the proof.
Given: $\overline{PR} \cong \overline{QS}$
Prove: $\overline{PQ} \cong \overline{RS}$



Statements	Reasons
a. $\overline{PR} \cong \overline{QS}$	a. _____
b. $PR = QS$	b. _____
c. $PQ + QR = PR$	c. _____
d. _____	d. Segment Addition Postulate
e. $PQ + QR = QR + RS$	e. _____
f. _____	f. Subtraction Property
g. _____	g. Definition of congruence of segments

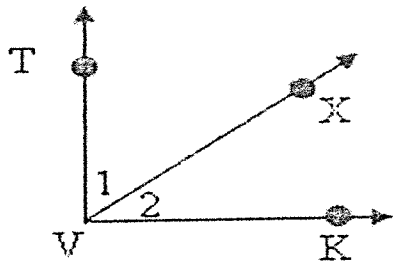
Complete the proofs below by filling in the missing statements and reasons.

9- **Given:** ∠1 and ∠2 form a linear pair
∠1 and ∠3 are supplementary

Prove: ∠2 ≅ ∠3

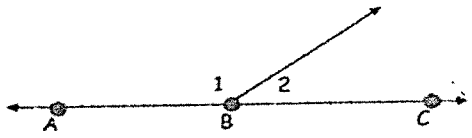
Statements	Reasons
1. ∠1 and ∠2 form a linear pair	
2. ∠1 and ∠2 are supplementary	
3. m∠1 + m∠2 = 180°	
4. ∠1 and ∠3 are supplementary	
5. m∠1 + m∠3= 180°	
6. m∠1 + m∠2 = m∠1 + m∠3	
7. m∠2 = m∠3	
8. ∠2 ≅ ∠3	

10. Given: $\angle TVK$ is a right angle.
Prove: $\angle 1$ is complementary to $\angle 2$.



Statements	Reasons
1. $\angle TVK$ is a right angle	1.
2. $m\angle TVK = 90°$	2.
3.	3. Angle addition postulate
4. $\angle 1 + \angle 2 = 90°$	4.
5.	5. Definition of Complementary angles.

11. Given: $\angle ABC$ is a straight angle
Prove: $\angle 1$ is supplementary to $\angle 2$.



Statements	Reasons
1.	1. Given
2. $\angle 1 + \angle 2 = \angle ABC$	2.
3. $\angle 1$ and $\angle 2$ form a linear pair	3.
4. $\angle 1$ is Supplementary to $\angle 2$	4.

12-

a- List all the transformations that we learned about.

b- Write a definition for each with specific features

c- Given an example of each

d- List which one of the above transformations represent congruence. Explain your reasoning

e- List which one of the above transformation represent similarity. Explain your reasoning