Foundations of Geometry Review Name: _____ Pd: ____

1. Define the following terms:

Undefined terms _____

Coplanar _____

Collinear _____

Postulate _____

Bisect _____

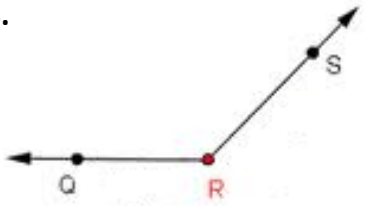
Theorem _____

2. Sketch the following

A line in plane R	A line intersecting a plane at point D	$\overleftrightarrow{AB}$ intersecting $\overleftrightarrow{CD}$

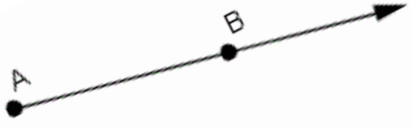
Use correct notation to name the following.

3.



3. _____

4.



4. _____

5. What is the intersection of 2 lines? _____

6. What is the intersection of 2 planes? _____

7. What is the intersection of 3 planes? _____

8. What is the intersection of a line and a plane? _____

9. How many points define a line? _____

10. How many points define a plane? _____ What kind of points are they? _____

Define the following:

Conditional statements	
Biconditional statements	
Inductive Reasoning	
Deductive Reasoning	
Counterexample	
Postulate	
Theorem	
Reflexive Property	
Symmetric Property	
Transitive Property	
Distributive Property	
Supplementary angles	
Complementary angles	

Complete the following patterns:

11) 3, 6, 12, 24, _____, _____

12) a, d, g, j, _____, _____

13) Write a biconditional statement from the following definition: Two angles whose sum is 90° are complementary angles

_____

_____

14) Write the inverse, Converse, & Contrapositive for the following statement and then decide if it is true of false. If false, give a counterexample.

Conditional	*If I am 16 years old, then I have my driver's license.*		Counterexample
Inverse	_____	T or F	_____
Converse	_____	T or F	_____
Contrapositive	_____	T or F	_____

15) Determine if the following conjecture is valid. 15) _____

Given: Nicholas can watch 30 minutes of television if he cleans his room first. Nicholas cleans his room.

Conjecture: Nicholas watches 30 minutes of television.

16) Determine if the following conjecture is valid. 16) _____

Given: If a point *A* is on $\overline{MN}$, then $\overline{MA} + \overline{AN} = \overline{MN}$.

Conjecture: If a point A is on $\overline{MN}$, then *it* is the midpoint of $\overline{MN}$.

17) Underline the conclusion, and circle the hypothesis:

I will pass my geometry test, if I do all my homework.

18) Underline the conclusion, and circle the hypothesis:

If I drive a Mustang, then I drive a Ford.

19-20) State if these are valid biconditional statements.

It is a triangle if and only if it is a closed shape that has three sides. _____

I have a rectangle if and only if it is a closed shape with four sides. _____

State the property being demonstrated in the following statements.

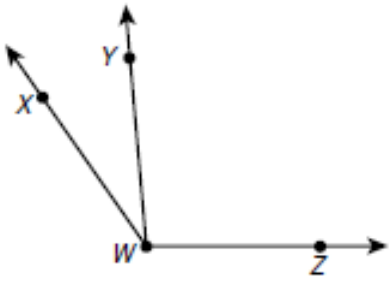
21) m∠1 = m∠2, so m∠1 + m∠3 = m∠2 + m∠3 _____

22) $\overline{MN} \cong \overline{PQ}$, so $\overline{PQ} \cong \overline{MN}$ _____

23) AB = CD and CD = EF, so AB = EF _____

24) m∠A = m∠A _____

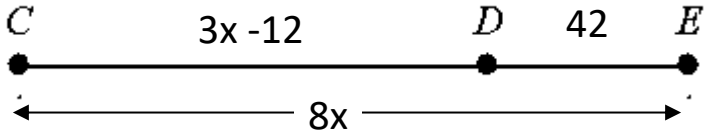
25) Marc doesn't think that the angle of the front seat in his mom's car is very cool, so he tilts the seat back. m∠ZWY = 95º and m∠YWX = 30 º . Find the measure of ∠ZWX.



m∠ZWX _____

26) Given:

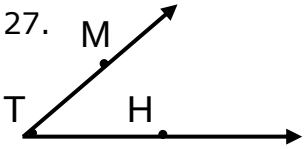
Prove x = 6



Statements	Reasons
1 CD = 3x-12; DE = 42, CE = 8x	1 Given
2 CE = CD + DE	2 Segment Addition Post.
3 8x = 3x-12 + 42	3
4	4
5	5
6	6
7	7
8	8

Use correct notation to name the following.

27.



28.

26. _____

27. _____

28.

28. _____