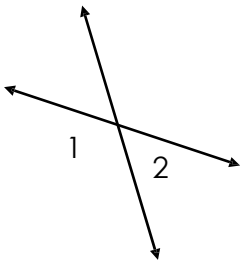
Name: _____

Date:_____

Unit 1: Quiz

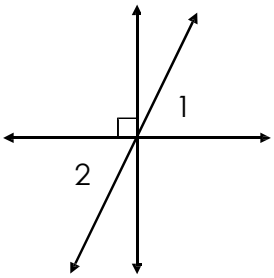
Geometry Basics

1. Classify $\angle 1$ and $\angle 2$ using all relationships that apply. (hint: 3 answers)



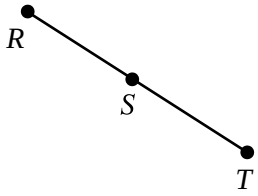
- ❑ Adjacent
- ❑ Vertical
- ❑ Complementary
- ❑ Supplementary
- ❑ Linear Pair
- ❑ Congruent

2. Classify $\angle 1$ and $\angle 2$ using all relationships that apply. (Hint 2 answers)



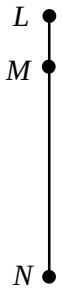
- ❑ Adjacent
- ❑ Vertical
- ❑ Complementary
- ❑ Supplementary
- ☑ Linear Pair
- ☑ Congruent

3. If $RS = 23 - 2x$, $ST = 9x - 5$, and $RT = 39$, find RS.



$RS =$

4. If $LN = 6x - 5$, $LM = x + 7$, and $MN = 3x + 20$, find MN.



$MN =$

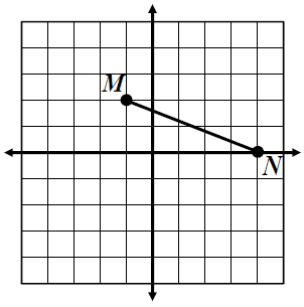
5. Given the points below, find XY. Round to the nearest tenth.

$X(-9, 2)$ and $Y(5, -4)$

$d=\sqrt{(x_2-x_1)^2 + (y_2 - y_1)^2}$

$XY =$

6. Given the graph below, find MN. Round to the nearest tenth. (Use distance formula in #5)



$MN =$

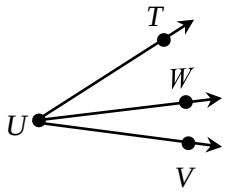
7. Find the midpoint of $\overline{AB}$ if $A(-3, 8)$ and $B(-7, -6)$.

(☐ , ☐)

8. If Q is the midpoint of $\overline{PR}$, find the coordinates of R if $P(11, -2)$ and $Q(4, 3)$.
(Hint: draw a picture)

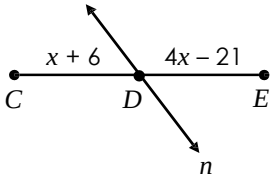
(☐ , ☐)

9. If $m\angle TUV = (9x + 1)°$, $m\angle TUW = (7x - 9)°$, and $m\angle WUV = (5x - 11)°$, find the value of x.



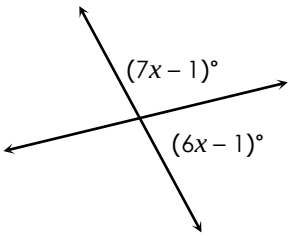
$x =$

10. If line n bisects $\overline{CE}$, find CD.



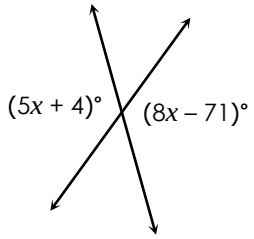
$CD =$

11. Find the value of x.



$x =$

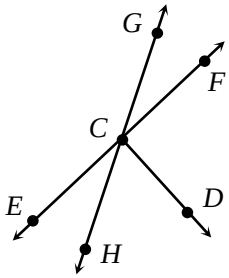
12. Find the value of x.



$x =$

B. If $\overrightarrow{CD} \perp \overleftrightarrow{EF}$, $m\angle ECH = (x + 5)°$ and $m\angle HCD = (3x - 7)°$, find each missing value.

****BONUS****



a) $x =$ _____

b) $m\angle ECH =$ _____

c) $m\angle HCD =$ _____

d) $m\angle GCF =$ _____

e) $m\angle ECG =$ _____

f) $m\angle GCD =$ _____