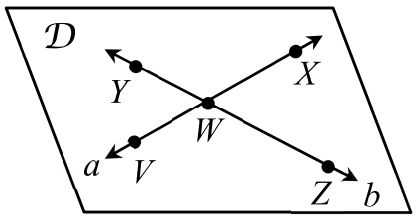
Name: _____ **Unit 1:** Geometry Basics

Date: _____ **Per:** _____ **Homework 1:** Points, Lines, and Planes

1. Use the diagram to answer the following questions.



a) How many points appear in the figure? _____

b) How many lines appear in the figure? _____

c) How many planes appear in the figure? _____

d) Name a line containing point V. _____

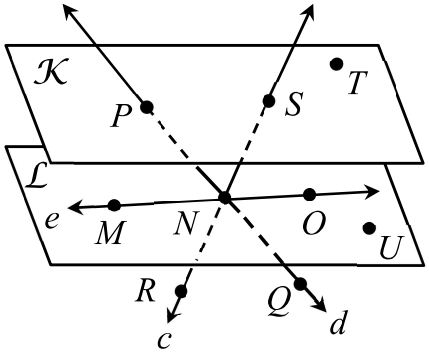
e) Name the intersection of lines a and b. _____

f) Give another name for line b. _____

g) Name three non-collinear points. _____

h) Give another name for plane $\mathcal{D}$. _____

2. Use the diagram to answer the following questions.



a) How many points appear in the figure? _____

b) How many lines appear in the figure? _____

c) How many planes appear in the figure? _____

d) Name three collinear points. _____

e) Name four non-coplanar points. _____

f) Give another name for line e. _____

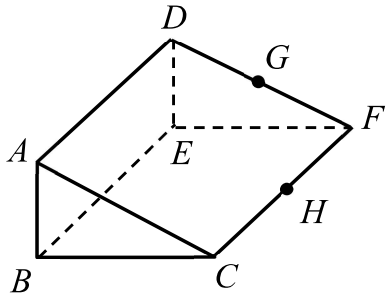
g) Name the intersection of $\overleftrightarrow{PQ}$ and $\overleftrightarrow{MO}$. _____

h) Name the intersection of plane K and line c. _____

i) Give another name for plane L. _____

j) Give another name for $\overleftrightarrow{PQ}$. _____

3. Use the diagram to answer the following questions.



a) How many points appear in the figure? _____

b) How many lines appear in the figure? _____

c) How many planes appear in the figure? _____

d) Name three collinear points. _____

e) Name four coplanar points. _____

f) Name the intersection of planes ABC and ABE. _____

g) Name the intersection of planes BCH and DEF. _____

h) Name the intersection of $\overline{AD}$ and $\overline{DF}$. _____

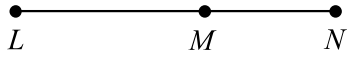
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Name: _____ **Unit 1:** Geometry Basics

Date: _____ **Per:** _____ **Homework 2:** Segment Addition Postulate

**** This is a 2-page document! ****

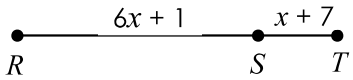
Use the diagram below to answer questions 1 and 2.



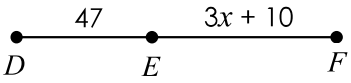
1. If $LM = 22$ and $MN = 15$, find LN.

2. If $LN = 54$ and $LM = 31$, find MN.

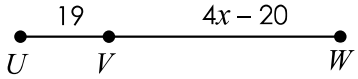
3. If $RT = 36$, find the value of x.



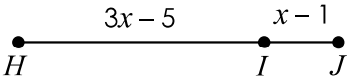
4. If $DF = 9x - 39$, find EF.



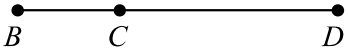
5. If $UW = 6x - 35$, find UW.



6. If $HJ = 7x - 27$, find the value of x.



7. If $BD = 7x - 10$, $BC = 4x - 29$, and $CD = 5x - 9$, find each value.



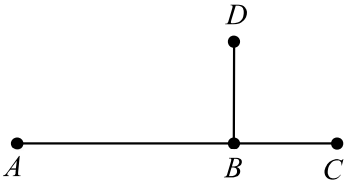
$x =$ _____

$BC =$ _____

$CD =$ _____

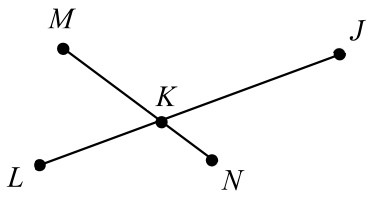
$BD =$ _____

8. If $\overline{BD} \cong \overline{BC}$, $BD = 5x - 26$, $BC = 2x + 1$, and $AC = 43$, find AB.

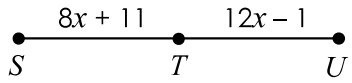


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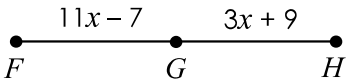
9. If $\overline{LK} \cong \overline{MK}$, $LK = 7x - 10$, $KN = x + 3$, $MN = 9x - 11$, and $KJ = 28$, find LJ.



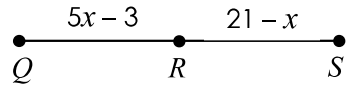
10. If T is the midpoint of $\overline{SU}$, find x.



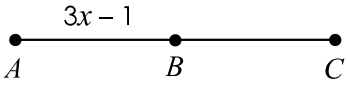
11. If G is the midpoint of $\overline{FH}$, find FG.



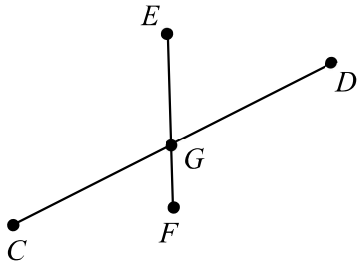
12. If R is the midpoint of $\overline{QS}$, find QS.



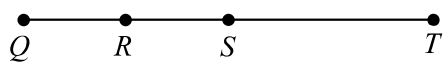
13. If B is the midpoint of $\overline{AC}$, and $AC = 8x - 20$, find BC.



14. If $\overline{EF}$ bisects $\overline{CD}$, $CG = 5x - 1$, $GD = 7x - 13$, $EF = 6x - 4$, and $GF = 13$, find EG.



15. If R is the midpoint of $\overline{QS}$, $RS = 2x - 4$, $ST = 4x - 1$, and $RT = 8x - 43$, find QS.



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