Name: _____

Unit 1: Geometry Basics

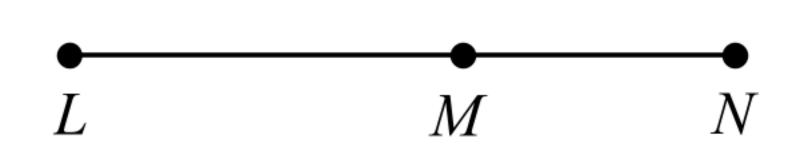
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Homework 2: Segment Addition Postulate

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

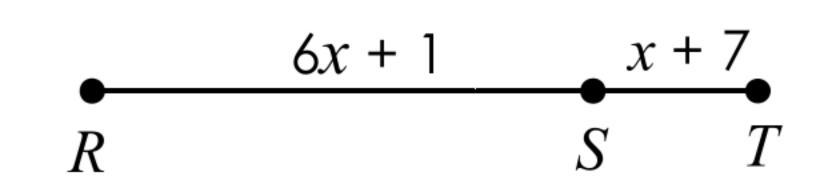
Use the diagram below to answer questions 1 and 2.



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

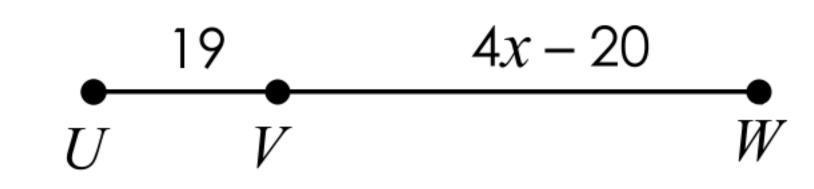
2. If LN = 54 and LM = 31, find MN.

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



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

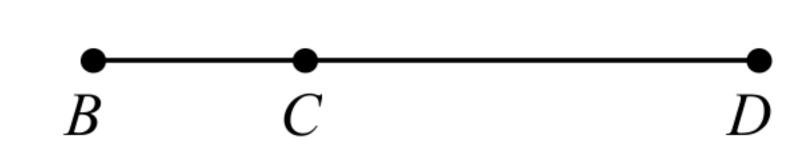
5. If UW = 6x - 35, find UW.



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

$$\begin{array}{c|c}
3x - 5 & x - 1 \\
H & I & J
\end{array}$$

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



x =

BC =

 $CD = \underline{\hspace{1cm}}$

BD =

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

