

Write the Segment Addition Postulate for the points described. Draw a picture to help.

1. S is between D and P
2. J is between S and H
3. C is between Q and R
4. T is between M and N

C is between A and E. For each problem, draw a picture representing the three points and the information given. Solve for indicated.

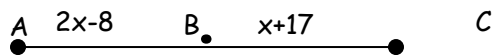
5. If  $AC = 24$  in. and  $CE = 13$  in.,  $AE =$  \_\_\_\_\_.
6. If  $CE = 7$  in. and  $AE = 23$  in.,  $AC =$  \_\_\_\_\_.

Find QR in the following problems. R is between Q and S.

7. If  $RS = 44.6$  and  $SQ = 68.4$ , find QR.
8. If  $RS = 33.5$  and  $RQ = 80$ , find SQ.

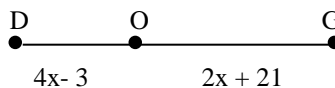
Refer to the figure and the given information to find each measure.

9. Given :  $AC = 39$  m



- $x =$  \_\_\_\_\_  
 $AB =$  \_\_\_\_\_  
 $BC =$  \_\_\_\_\_

10. Given the figure and  $DG = 60$  ft.



- $x =$  \_\_\_\_\_  
 $DO =$  \_\_\_\_\_  
 $OG =$  \_\_\_\_\_

If U is between T and B, find the value of x and the lengths of the segments. (Hint: Draw a

picture for each problem with the given information and then write the equation to solve.)

11.  $TU = 2x$ ,  $UB = 3x + 1$ ,  $TB = 21$

12.  $TU = 4x - 1$ ,  $UB = 2x - 1$ ,  $TB = 5x$

$x = \underline{\hspace{2cm}}$

$x = \underline{\hspace{2cm}}$

$TU = \underline{\hspace{2cm}}$

$TU = \underline{\hspace{2cm}}$

$UB = \underline{\hspace{2cm}}$

$UB = \underline{\hspace{2cm}}$

$TB = \underline{\hspace{2cm}}$

Write an equation for the each:

13. Segment AB is congruent to segment BC  $\underline{\hspace{4cm}}$

14.  $\overline{XY} \cong \overline{AB}$   $\underline{\hspace{4cm}}$

15. Point B is between points A & C  $\underline{\hspace{4cm}}$

16.  $2x + 5$  is equal to  $4x - 8$   $\underline{\hspace{4cm}}$

17. Point A is between points P & T  $\underline{\hspace{4cm}}$

For 18-19, suppose  $\overline{RS}$  is congruent to  $\overline{MN}$ . For each set of lengths, solve for x, and find the length of each segment. For 20-21,  $\overline{AB} \cong \overline{BC}$ .

18.  $RS = 3x + 17$ ,  $MN = 7x - 15$

19.  $RS = x + 10$ ,  $MN = 2x + 4$

$x = \underline{\hspace{2cm}}$

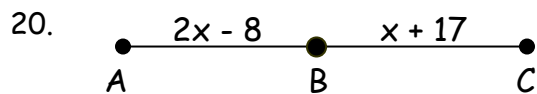
$x = \underline{\hspace{2cm}}$

$RS = \underline{\hspace{2cm}}$

$RS = \underline{\hspace{2cm}}$

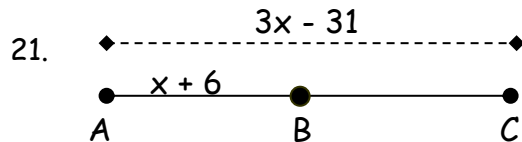
$MN = \underline{\hspace{2cm}}$

$MN = \underline{\hspace{2cm}}$



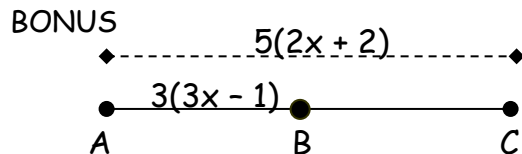
$x = \underline{\hspace{2cm}}$        $AB = \underline{\hspace{2cm}}$

$BC = \underline{\hspace{2cm}}$        $AC = \underline{\hspace{2cm}}$



$x = \underline{\hspace{2cm}}$        $AB = \underline{\hspace{2cm}}$

$BC = \underline{\hspace{2cm}}$        $AC = \underline{\hspace{2cm}}$



$x = \underline{\hspace{2cm}}$        $AB = \underline{\hspace{2cm}}$

$BC = \underline{\hspace{2cm}}$        $AC = \underline{\hspace{2cm}}$