

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



$x =$ _____

$AB =$ _____

$BC =$ _____

$x =$ _____

$DO =$ _____

$OG =$ _____

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



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 = _____

x = _____

TU = _____

TU = _____

UB = _____

UB = _____

TB = _____

Write an equation for the each:

13. Segment AB is congruent to segment BC _____

14. $\overline{XY} \cong \overline{AB}$ _____

15. Point B bisects segment AC _____

16. $2x + 5$ is equal to $4x - 8$ _____

17. Point A is the midpoint of segment PT _____

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 = _____

x = _____

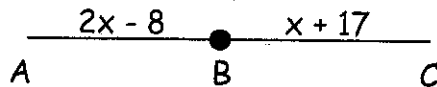
RS = _____

RS = _____

MN = _____

MN = _____

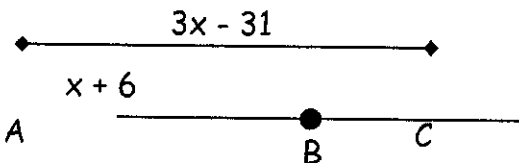
20.



x = _____ AB = _____

BC = _____ AC = _____

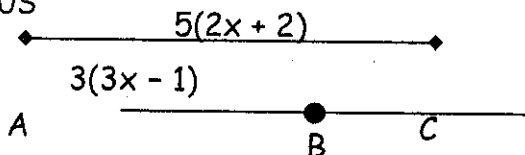
21.



x = _____ AB = _____

BC = _____ AC = _____

BONUS



x = _____ AB = _____

BC = _____ AC = _____