Name _____ Date _____

Segment Addition Postulate

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 = 7in. and AE = 23 in., AC = _____.

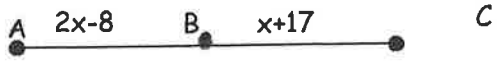
Find QR in the following problems. R is between Q and S.

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

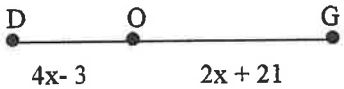


x = _____

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. 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

x = _____

TU = _____

UB = _____

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

x = _____

TU = _____

UB = _____

TB = _____

For 13-14, suppose $\overline{RS}$ is congruent to $\overline{MN}$. For each set of lengths, solve for x, and find the length of each segment.

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

x = _____

RS = _____

MN = _____

14. RS = x + 10, MN = 2x + 4

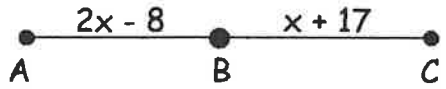
x = _____

RS = _____

MN = _____

For 15-16, suppose $\overline{AB} \cong \overline{BC}$. For each set of lengths, solve for x, and find the length of each segment.

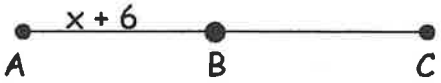
15.



x = _____ AB = _____

BC = _____ AC = _____

16.



AC = 3x - 31

x = _____ AB = _____

BC = _____ AC = _____