


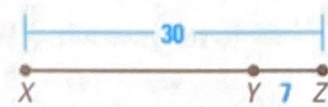
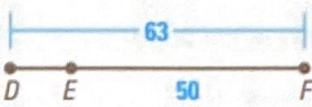
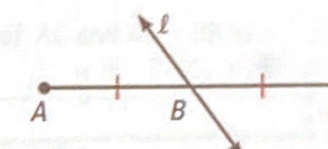
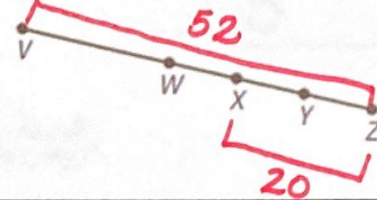


Rapid Practice #1-12: Find each indicated length. (no geo or just needed)

|   |   |  |
|---|---|--|
| <p>1. Find <math>MP</math>.</p>  <p><math>MP = 23</math></p> | <p>2. Find <math>RT</math>.</p>  <p><math>RT = 44</math></p> | <p>3. Find <math>UW</math>.</p>  <p><math>UW = 65</math></p>  |
| <p>4. Find <math>XY</math>.</p>  <p><math>XY = 23</math></p> | <p>5. Find <math>DE</math>.</p>  <p><math>DE = 13</math></p> | <p>6. Find <math>BC</math> if <math>AC = 19</math> cm.</p>  <p><math>BC = 9.5 \text{ cm}</math></p> |

**FINDING LENGTHS** In the diagram, points  $V, W, X, Y,$  and  $Z$  are collinear,  $VZ = 52$ ,  $XZ = 20$ , and  $WX = XY = YZ$ . Find the indicated length.

7.  $WX$  **10**      8.  $VW$  **22**      9.  $WY$  **20**  
 10.  $VX$  **32**      11.  $WZ$  **30**      12.  $VY$  **42**



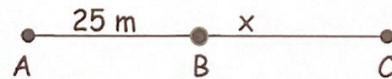
For #13 -20, Find  $x$  and lengths indicated. Write a geometry equation and justification for each question.

13. Find  $x$ .



$\overline{PQ} \cong \overline{RS}$  congruence  
 $2x - 3 = 15$   
 $2x = 18$   
 $x = 9$

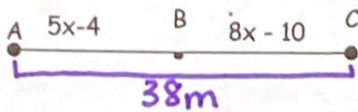
14.  $B$  is the midpoint of  $AC$ .



$\overline{AB} \cong \overline{BC}$  def. of midpt

$25 \text{ m} = x$

15. B is between point A and C and  $AC = 38$  m



$\overline{AB} + \overline{BC} = \overline{AC}$  segment addition

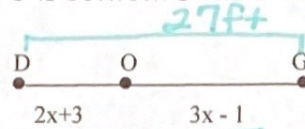
$5x - 4 + 8x - 10 = 38$

$x = 4$

$AB = 5(4) - 4$   
 $BC = 8(4) - 10$

$x = 4$   $AB = 16$  m  $BC = 22$  m

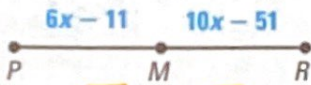
16. O is between D and G and  $DG = 27$  ft



$\overline{DO} + \overline{OG} = \overline{DG}$  segment addition  
 $2x + 3 + 3x - 1 = 27$   
 $x = 5$

$x = 5$   $DO = 13$  ft  $OG = 14$  ft

17. M is the midpoint of PR.



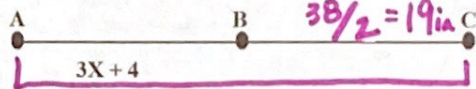
$\overline{PM} \cong \overline{MR}$  def of midpoint

$6x - 11 = 10x - 51$

$x = 10$

$x = 10$   $PM = 49$

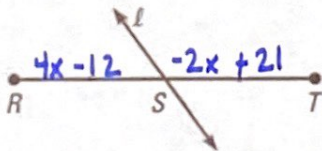
18. B is the midpoint of AC and  $AC = 38$  in



$\overline{AB} \cong \overline{BC}$  def of midpoint  
 $3x + 4 = 19$   
 $x = 5$

$x = 5$

19. Line l bisect RT through point S and  $RS = 4x - 12$  and  $ST = -2x + 21$ .



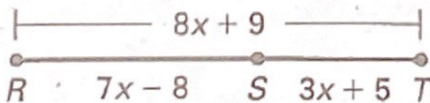
$\overline{RS} \cong \overline{ST}$  def of segment bisector

$4x - 12 = -2x + 21$

$x = 5.5$

$x = 5.5$   $ST = 10$   $RT = 20$

20. S is between R and T.



$\overline{RS} + \overline{ST} = \overline{RT}$  segment addition

$7x - 8 + 3x + 5 = 8x + 9$

$x = 6$

$x = 6$   $RS = 34$   $ST = 23$   $RT = 57$