

LESSON
1.2

Practice

For use with pages 9-14

Measure the length of the segment to the nearest tenth of a centimeter.



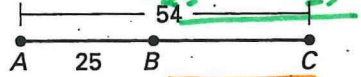
Use the Segment Addition Postulate to find the indicated length.

4. Find RT .
 $RT = RS + ST$
 $RT = 17 + 8.5$



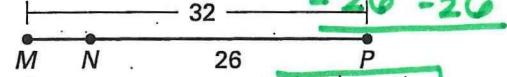
$RT = 25.5$

5. Find BC .
 $AB + BC = AC$
 $25 + BC = 54$
 $BC = 29$



$BC = 29$

6. Find MN .
 $MN + NP = MP$
 $MN + 26 = 32$
 $MN = 6$

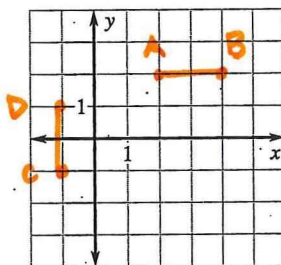


$MN = 6$

Plot the given points in a coordinate plane. Then determine whether the line segments named are congruent:

7. $A(2, 2), B(4, 2), C(-1, -1), D(-1, 1)$;

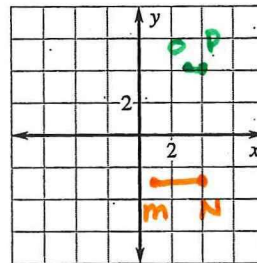
\overline{AB} and \overline{CD}



$AB = 2$
 $CD = 2$
 $\overline{AB} \cong \overline{CD}$

8. $M(1, -3), N(4, -3), O(3, 4), P(4, 4)$;

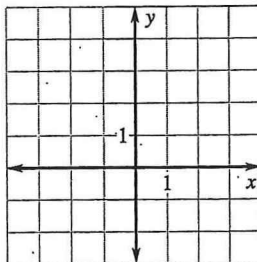
\overline{MN} and \overline{OP}



$MN = |1 - 4|$
 $MN = 3$
 $OP = |3 - 4|$
 $OP = 1$
 $\overline{MN} \not\cong \overline{OP}$

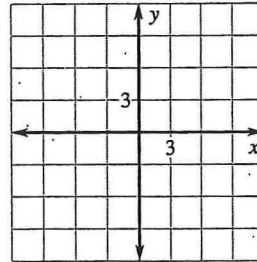
9. $E(-3, 4), F(-1, 4), G(2, 4), H(-1, 1)$;

\overline{EG} and \overline{FH}



10. $R(3, 5), S(10, 5), T(-4, -3), U(-11, -3)$;

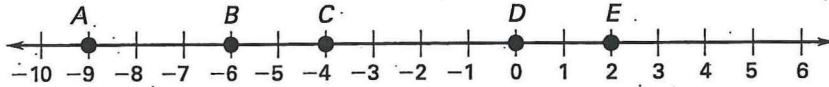
\overline{RS} and \overline{TU}



LESSON
1.2

Practice *continued*
For use with pages 9-14

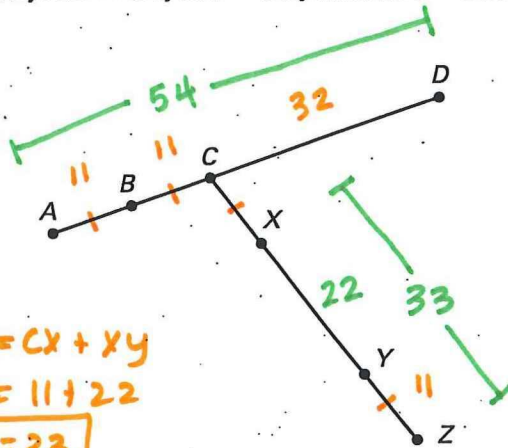
Use the number line to find the indicated distance.



11. $AB = 3$
 $| -9 - (-6) |$
12. $AD = 9$
13. $CD = 4$
14. $BD = 6$
15. $CE = 6$
 $| -4 - 2 |$
16. $AE = 11$
 $| -9 - 2 |$
17. $BE = 8$
 $| -6 - 2 |$
18. $DE = 2$

In the diagram, points A, B, C, and D are collinear, points C, X, Y, and Z are collinear, $AB = BC = CX = YZ$, $AD = 54$, $XY = 22$, and $XZ = 33$. Find the indicated length.

19. $AB = 11$
20. $BD = 43$
21. $CY = 33$
22. $CD = 32$
23. $XC = 11$
24. $CZ = 44$



$CY = CX + XY$
 $CY = 11 + 22$
 $CY = 33$

$CZ = CX + XZ$
 $CZ = 11 + 33$
 $CZ = 44$

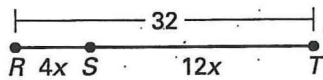
$YZ = XZ - XY$
 $YZ = 33 - 22$
 $YZ = 11$

$CD = AD - AC$
 $CD = 54 - 22$
 $CD = 32$

$BD = BC + CD$
 $BD = 11 + 32$
 $BD = 43$

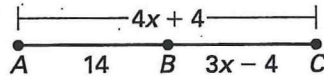
Find the indicated length.

25. Find ST .



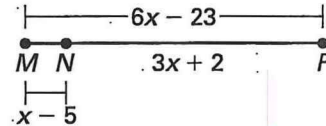
$RS + ST = RT$
 $4x + 12x = 32$
 $16x = 32$
 $x = 2$
 $ST = 12(2)$
 $ST = 24$

26. Find AC .



$AB + BC = AC$
 $14 + 3x - 4 = 4x + 4$
 $10 + 3x = 4x + 4$
 $-4x - 4x$
 $10 - x = 4$
 $-10 - 10$
 $-x = -6$
 $x = 6$
 $AC = 4(6) + 4$
 $AC = 28$

27. Find NP .



$MN + NP = MP$
 $x - 5 + 3x + 2 = 6x - 23$
 $4x - 3 = 6x - 23$
 $-6x - 6x$
 $-2x - 3 = -23$
 $+3 + 3$
 $-2x = -20$
 $x = 10$
 $NP = 3(10) + 2$
 $NP = 32$

LESSON 1.2 Practice *continued*
For use with pages 9-14



Point J is between H and K on \overline{HK} . Use the given information to write an equation in terms of x . Solve the equation. Then find HJ and JK .

28. $HJ = 2x$
 $JK = 3x$
 $KH = 25$

$HJ + JK = KH$
 $2x + 3x = 25$
 $5x = 25$
 $x = 5$

$HJ = 2(5)$
 $HJ = 10$

$JK = 3(5)$
 $JK = 15$

30. $HJ = 5x - 4$
 $JK = 8x - 10$
 $KH = 38$

$HJ + JK = KH$
 $5x - 4 + 8x - 10 = 38$
 $13x - 14 = 38$
 $+14 +14$
 $13x = 52$
 $x = 4$

$HJ = 5(4) - 4$
 $HJ = 16$

$JK = 8(4) - 10$
 $JK = 22$

29. $HJ = \frac{x}{4}$
 $JK = 3x - 4$
 $KH = 22$

$HJ = \frac{8}{4}$
 $HJ = 2$
 $JK = 3(8) - 4$
 $JK = 20$

31. $HJ = 5x - 3$
 $JK = x - 9$
 $KH = 5x$

$HJ = 5(12) - 3$
 $HJ = 57$

$JK = 12 - 9$
 $JK = 3$

$HJ + JK = HK$
 $\frac{x}{4} + 3x - 4 = 22$

$x + 12x - 16 = 88$
 $13x - 16 = 88$
 $+16 +16$
 $13x = 104$
 $x = 8$

$HJ + JK = HK$
 $5x - 3 + x - 9 = 5x$

$6x - 12 = 5x$
 $-5x -5x$

$x - 12 = 0$
 $+12 +12$
 $x = 12$

distribute the 4 to all terms

32. **Hiking** On the map, \overline{AB} represents a trail that you are hiking. You start from the beginning of the trail and hike for 90 minutes at a rate of 1.4 miles per hour. How much farther do you need to hike to reach the end of the trail?

