

Unit 6.2 Segment Addition Postulate PRACTICE

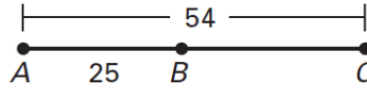
Period: _____

Use the Segment Addition Postulate to find the indicated length.

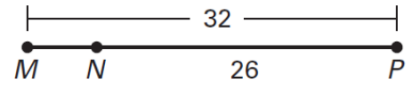
1. Find RT. **25.5**



2. Find BC. **29**



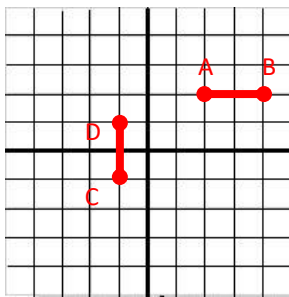
3. Find MN. **6**



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

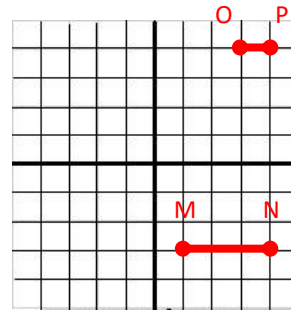
4. $A(2, 2), B(4, 2), C(-1, -1), D(-1, 1)$

\overline{AB} and \overline{CD} **Congruent**



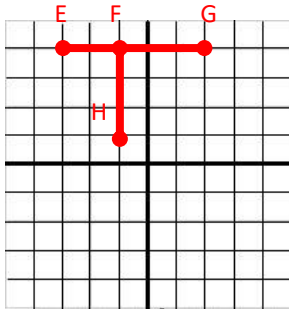
5. $M(1, -3), N(4, -3), O(3, 4), P(4, 4)$

\overline{MN} and \overline{OP} **NOT Congruent**



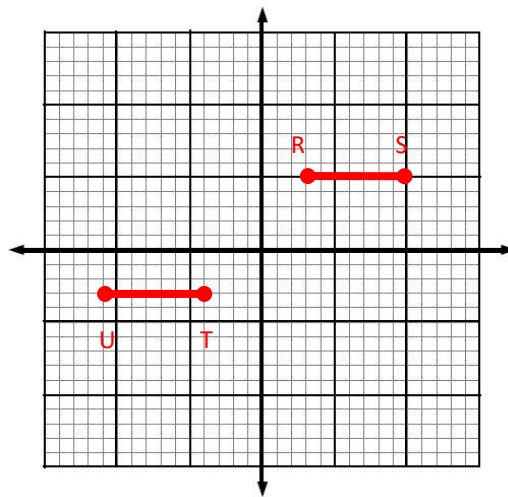
6. $E(-3, 4), F(-1, 4), G(2, 4), H(-1, 1)$

\overline{EG} and \overline{FH} **NOT Congruent**

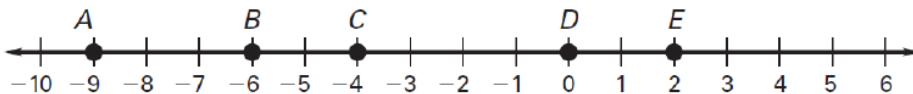


7. $R(3, 5), S(10, 5), T(-4, -3), U(-11, -3)$

\overline{RS} and \overline{TU} **Congruent**



Use the number line to find the indicated distance.



8. AB **3**

9. AD **9**

10. CD **4**

11. BD **6**

12. CE **6**

13. AE **11**

14. BE **8**

15. 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.

16. AB **11**

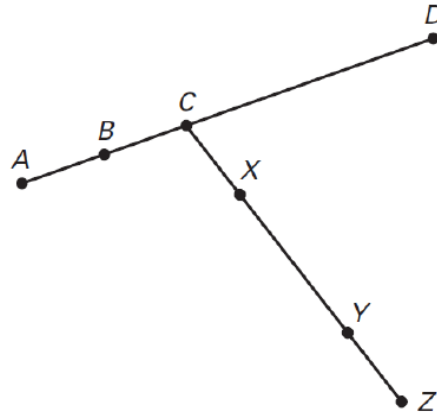
17. BD **43**

18. CY **33**

19. CD **32**

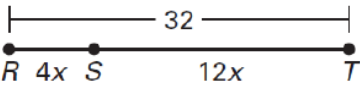
20. XC **11**

21. CZ **44**

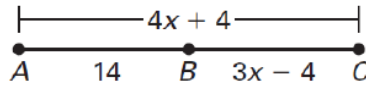


Find the indicated length.

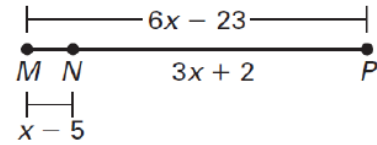
22. Find ST **24**



23. Find AC **28**



24. Find NP **32**



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. (Hint draw a picture and label each part.)

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

$2x + 3x = 25$
 $HJ = 10$
 $JK = 15$

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

$\frac{x}{4} + 3x - 4 = 22$
 $HJ = 2$
 $JK = 20$

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

$5x - 4 + 8x - 10 = 38$
 $HJ = 16$
 $JK = 22$

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

$5x - 3 + x - 9 = 5x$
 $HJ = 57$
 $JK = 3$