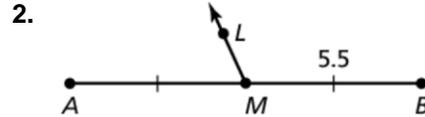
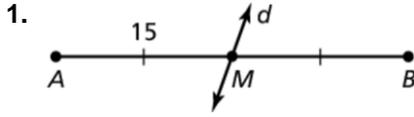


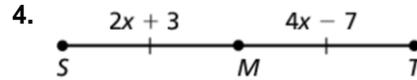
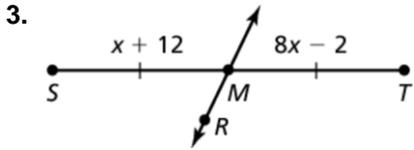
1.3

Practice A

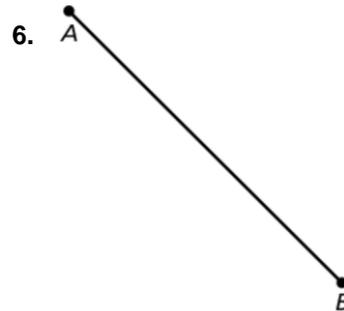
In Exercises 1 and 2, identify the segment bisector of \overline{AB} . Then find AB .



In Exercises 3 and 4, identify the segment bisector of \overline{ST} . Then find ST .



In Exercises 5 and 6, copy the segment and construct a segment bisector by paper folding. Then label the midpoint M .



In Exercises 7 and 8, the endpoints of \overline{JK} are given. Find the coordinates of the midpoint M .

7. $J(-3, 2)$ and $K(9, 2)$

8. $J(1, 3)$ and $K(7, 5)$

In Exercises 9 and 10, the midpoint M and one endpoint of \overline{AB} are given. Find the coordinates of the other endpoint.

9. $M(2, 5)$ and $A(2, 3)$

10. $M(-4, -4)$ and $B(-1, -1)$

In Exercises 11 and 12, find the distance between the two points.

11. $Q(5, 6)$ and $P(1, 3)$

12. $G(2, 5)$ and $H(4, -1)$

13. A square has a side length of 4 centimeters. What is the length of the diagonal of the square? What is the length from the corner to the center of the square? Explain.

14. During a soccer game, Player A is 87 feet from the goal but chooses to pass the ball to Player B who is 63 feet away from Player A. How far away is Player B from the goal?

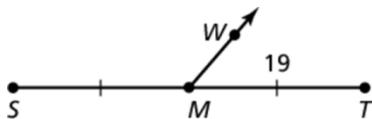


1.3

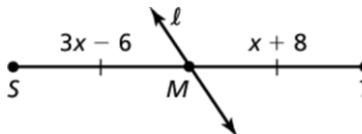
Practice B

In Exercises 1 and 2, identify the bisector of \overline{ST} . Then find ST .

1.



2.



Copy the segment and construct a segment bisector by paper folding. Then label the midpoint M .

3.



In Exercises 4 and 5, the endpoints of \overline{LN} are given. Find the coordinates of the midpoint M .

4. $L(2, 1)$ and $N(2, 13)$

5. $L(-6, 0)$ and $N(6, 6)$

In Exercises 6 and 7, the midpoint M and one endpoint of \overline{CD} are given. Find the coordinates of the other endpoint.

6. $M(1, 2)$ and $C(-1, 4)$

7. $M(3, 7)$ and $D(1, 1)$

In Exercises 8 and 9, find the distance between the two points.

8. $A(1, 7)$ and $B(4, 6)$

9. $G(-1, -5)$ and $H(3, -8)$

10. Your friend draws a square and one diagonal connecting its opposite vertices. Your friend believes that the diagonal is the same length as one side of the square. Do you agree? Explain your reasoning.
11. Is it possible for a segment to have more than one bisector? Explain your reasoning.
12. You walk 2 miles from your house to the park and 4.5 miles from the park to the lake. Then you return home along a straight path from the lake. How many miles do you walk from the lake back to your house? What is the total distance you walk?

