Name_____ Date _____

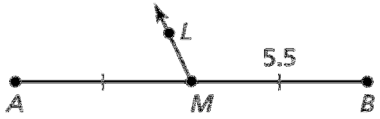
1.3 Assignment

Practice A

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

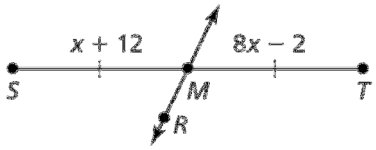
1.

2.

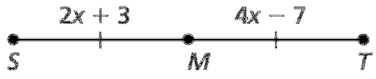


In Exercises 3 and 4, identify the segment bisector of $\overline{ST}$. Then find *ST*.

3.



4.



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 $A(2, 3)$

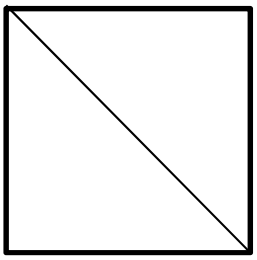
10. $M(-4, -4)$ and $B(-1, -1)$

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

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

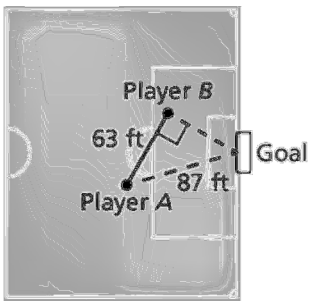
12. $G(2, 5)$ and $H(4, -1)$

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?



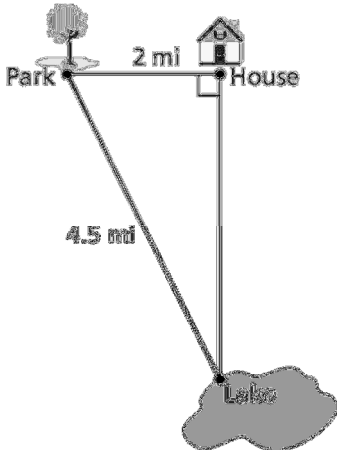
Practice B

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 $H(3, -8)$

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?



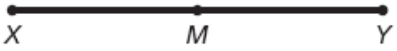
Answers

1.3 Practice A

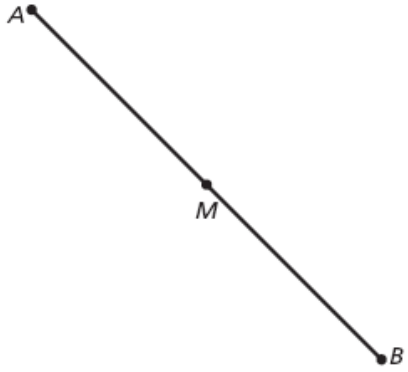
1. line d; 30 **2.** $\overleftrightarrow{ML}$; 11

3. $\overline{MR}$; 28 **4.** M; 26

5.



6.



7. $(3, 2)$ **8.** $(4, 4)$ **9.** $(2, 7)$

10. $(-7, -7)$ **11.** 5 **12.** about 6.3

13. about 5.7 cm; about 2.8 cm; The center of the square is the segment bisector of the diagonal.

14. 60 ft

1.3 Practice B

8. about 3.2 **9.** 5

12. about 2 mi; about 10.5 mi