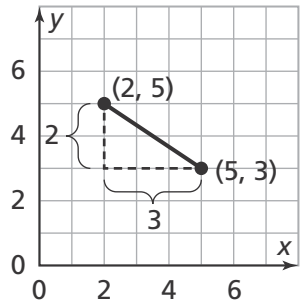
Name _____

Reteach to Build Understanding
7-4

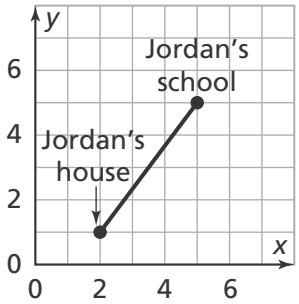
To find the distance between the points (2, 5) and (5, 3), plot the points in the coordinate plane. Draw a right triangle whose hypotenuse is the segment between the points. Then use the Pythagorean Theorem to find the length of the hypotenuse.

$$a^2 + b^2 = c^2$$
$$2^2 + 3^2 = c^2$$
$$4 + 9 = c^2$$
$$13 = c^2$$
$$\sqrt{13} = c$$



The distance between the points is $\sqrt{13}$ units.

On the map each unit represents 1 mile. What is the shortest distance from Jordan's house to his school?



1. On the graph, draw a right triangle so that the segment from Jordan's house to Jordan's school is the hypotenuse. Label the length of the legs.

2. Use the Pythagorean Theorem.

$a^2 + b^2 = c^2$

$\square^2 + \square^2 = \square^2$

$\square^2 + \square^2 = \square^2$

$\square^2 = \square^2$

$\sqrt{\square} = \square$

$\square = \square$

3. What is the shortest distance from his house to school?

$\square$ miles

On the Back!

4. The movie theater is at (1, 6) and the park is at (5, 1). What is the shortest distance from the movie theater to the park?

