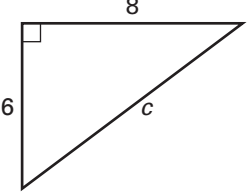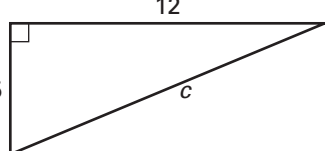## *Practice A*

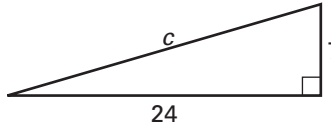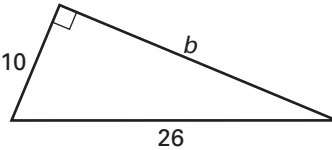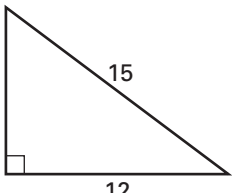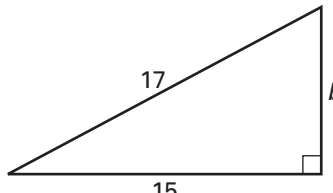**For use with pages 191–198**

Complete the statement.

1. In a right triangle, the sides that form the right angle are called __?__.

2. In a right triangle, the side opposite the right angle is called the __?__.

3. In a right triangle, the square of the length of the __?__ is equal to the sum of the squares of the lengths of the __?__.

4. If $A(x_1, y_1)$ and $B(x_2, y_2)$ are points in a coordinate plane, then the __?__ between A and B is $AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$.
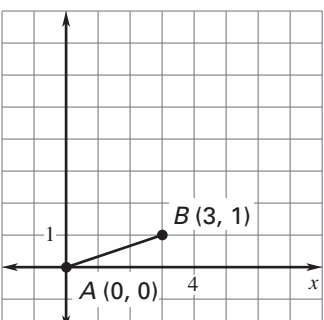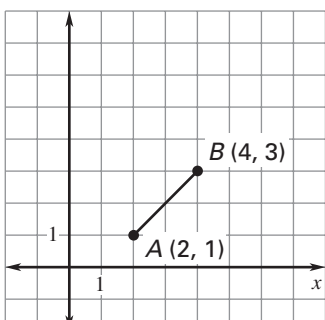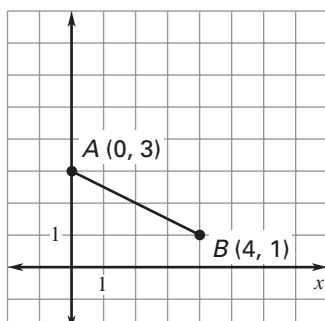
Find the length of the hypotenuse.

5.

8
6
c

6.

12
5
c

7.

c
7
24

Find the unknown side length.

8.

10
b
26

9.

a
15
12

10.

17
b
15

Find the distance between points *A* and *B*. Round your answer to the nearest tenth, if necessary.

11.

B (3, 1)
1
A (0, 0)   4   x

12.

B (4, 3)
1
A (2, 1)
1   x

13.

A (0, 3)
1
B (4, 1)
1   x

14. The diagram at the right shows the distance from your school to the bank and the distance from the bank to the library. Find the length of the shortest route from your school to the library. Round your answer to the nearest tenth of a mile.

Library
0.5 mi
School   1 mi   Bank