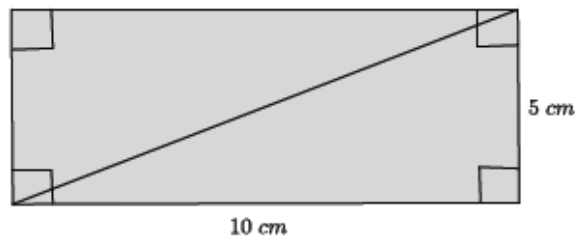
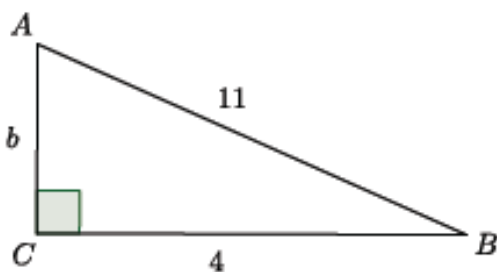


4. Given a rectangle with dimensions 5 cm and 10 cm, as shown, find the length of the diagonal.



5. A right triangle has a hypotenuse of length 13 in and a leg with length 4 in. What is the length of the other leg?

6. Find the length of b in the right triangle below.



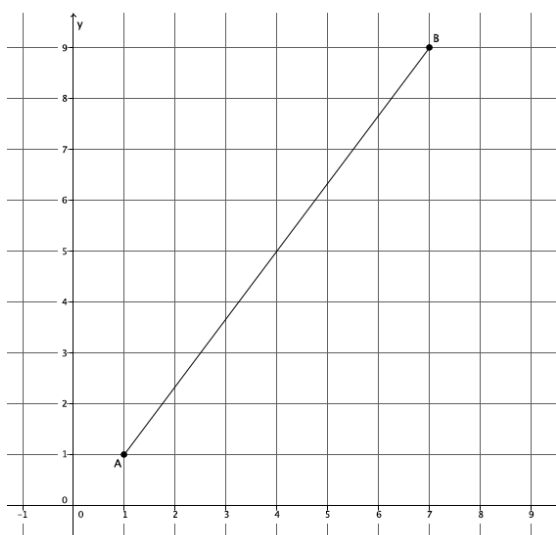
Lesson Summary

The Pythagorean theorem can be used to find the unknown length of a leg of a right triangle.

An application of the Pythagorean theorem allows you to calculate the length of a diagonal of a rectangle, the distance between two points on the coordinate plane and the height that a ladder can reach as it leans against a wall.

Problem Set

1. Find the length of the segment AB shown below.



2. A 20-foot ladder is placed 12 feet from the wall, as shown. How high up the wall will the ladder reach?

