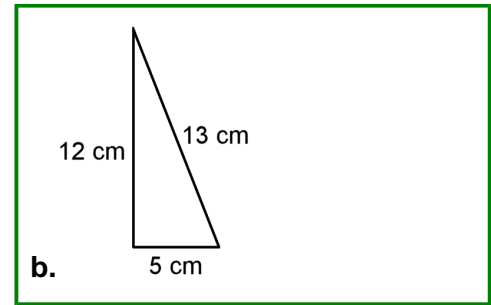# The Pythagorean Theorem
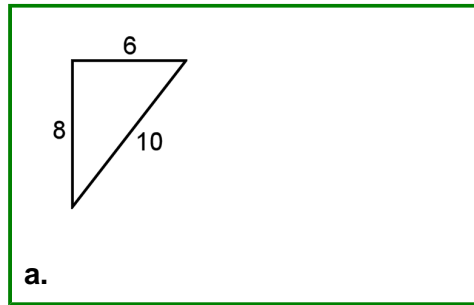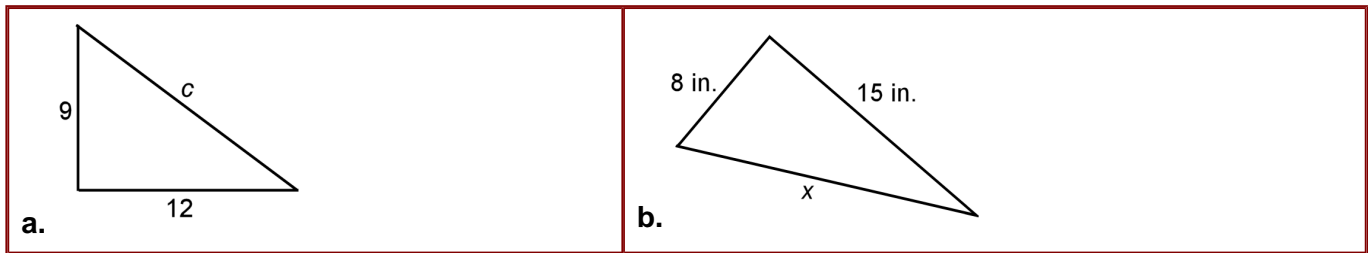
1. These are right triangles. Write the equation given by the Pythagorean theorem, and check that it is true.

a.

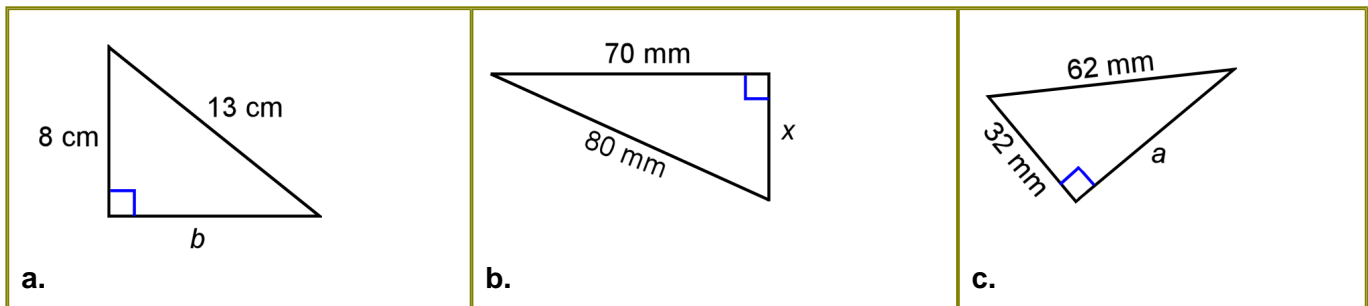**b.**

2. The three sides of a triangle are given. Use the Pythagorean theorem to check if the triangle is right.

   a. 10, 12, 15   **b.** 9, 11, 5   **c.** 12, 16, 20.

3. Find the length of the hypotenuse for these right triangles.

a.

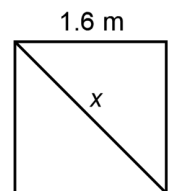**b.**

4. Find the length of the hypotenuse when the two other sides of a right triangle are given.

   a. 11 cm and 15 cm   **b.** 24 in. and 30 in.   **c.** 5.4 m and 3.9 m

5. Find the missing side length of these right triangles.

a.

b.

c.

6. Find the diagonal of the square on the right.

7. A park is 90 m x 90 m square. How long is a diagonal across the park?