Recall that a **right** triangle is a triangle with a right, or 90$°$ angle. The longest side of a right triangle is opposite the\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. We call this side the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the triangle. The other two sides are called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_**

The area of the square on leg 1 plus the area of the square on leg 2 equals the area of the square on the hypotenuse if the triangle is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ triangle.

The Pythagorean Theorem states that for all right triangles \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Use the Pythagorean Theorem to find the missing lengths.**

12

9

c

10

c

12

**Tell whether the triangle with the given side lengths is a right triangle.**

**8, 6, 10 5, 10,** $\sqrt{125}$ **3, 4, 6**

**Amala is mountain climbing with Elliot and has just climbed a 12-meter vertical rock face. Elliot is standing 16 meters away from the bottom of the cliff, looking up at Amala. How far away are Amala and Elliot?** (Drawing a triangle may help you set up the equation).

**Use the Pythagorean Theorem to find the missing lengths.**

a

15

b

14

12

17

**A hummingbird lives in a nest that is 7 meters high in a tree. The hummingbird flies 9 meters to get from its nest to a flower on the ground. How far is the flower from the base of the tree?** (Drawing a triangle may help you set up the equation).