Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table# \_\_\_\_ Period: \_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

**7.3C HW**

**Solve each of the following. Please draw a picture and use the Pythagorean Theorem to solve.**

 **Be sure to label all answers.**

1. The bottom of a ladder must be placed 3 feet from a wall. The ladder is 12 feet long. How far above the ground does the ladder touch the wall? (Round your answer to the nearest tenth.)

2. A soccer field is a rectangle 90 meters wide and 120 meters long. The coach asks players to run from one corner to the corner diagonally across the field. How far do the players run?

3. How far from the base of the house do you need to place a 15’ ladder so that it exactly reaches the top of a 12’ wall?

4. What is the length of the diagonal of a 10 cm by 15 cm rectangle? (Round your answer to the nearest hundredth.)

5. The diagonal of a rectangle is 25 in. The width is 15 in. What is the area of the rectangle?

Solutions: **1.** 11.6 feet **2.** 150 m **3.** 9’ **4.** 18.03 cm **5.** 300 sq. **inches**