Geometry:

Pythagorean Theorem word problems ws #1         Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

Be sure to label all answers and round to the nearest tenth.

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?

 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?

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

6. A helicopter rose 300’ and then flew west 400’. How far from the helipad is the helicopter?

7. The area of a square is 81 cm2 .  Find the perimeter of the square.

8. An isosceles triangle has congruent sides of 20 cm.  The base is 10 cm.  What is the area of the triangle?

 9. A 50-foot cable is stretched from the top of an antenna to an anchor point on the ground 15 feet from the base of the antenna. How tall is the antenna?

10. Jill’s front door is 42” wide and 84” tall.  She purchased a circular table that is 96 inches in diameter.  Will the table fit through the front door?