

Pythagorean Theorem Word Problems: draw a picture and solve.

Approximate answers 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. What is this distance?

3. How far from the base of the house do you need to place a 15-foot ladder so that it exactly reaches the top of a 12-foot tall 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 inches. What is the length?

6. The area of a square is 81 square centimeters. Find the length of a side. Find the length of the diagonal.

7. A baseball diamond is a square that is 90 feet on each side. What is the distance from home to second base?

8. Alfredo's front door is 42" wide and 84" tall. He purchased a circular table that is 96 inches in diameter. Will the table fit through the front door? Explain using approximations.

Key-Pythagorean Theorem Word Problems

1. 11.6 ft
2. 150 m
3. 9ft.
4. $\approx 18.03 \approx 18$ ft.
5. 20 in.
6. Length of side=9 cm.
Diagonal= $9\sqrt{2} \approx 12.7$ cm.
7. 127.3 ft.
8. Door Diagonal ≈ 93.9 in.
Therefore a circular table with approximately 96 in.
would not fit through the door because the longest side of
the right triangle is the hypotenuse.