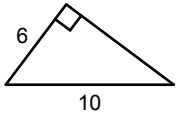


Pythagorean Theorem Word Problems

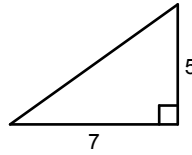
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Find each missing length to the nearest tenth.

1)



2)



3) $a = 2$, $b = ?$, $c = 3$

4) $a = 10$, $b = 12$, $c = ?$

- 5) 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?
- 6) 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 the distance?
- 7) 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?
- 8) The area of a square is 81 square centimeters. Find the length of a side. Find the length of the diagonal. (draw a picture to help you). side = ? diagonal = ?
- 9) George rides his bike 9 km south and then 12 km east. How far is he from his starting point?
- 10) Find the length of a rectangle that has a diagonal of 25 feet and a width of 15 feet.