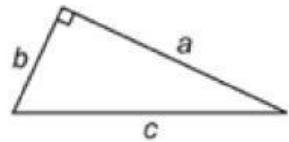


In any right triangle, the sum of the squares of the two shorter sides is equal to the square of the longer side.

Remember

$$c^2 = a^2 + b^2$$

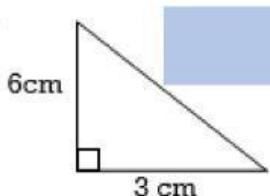
$$a^2 = c^2 - b^2$$



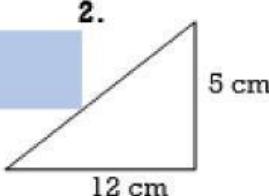
$$a^2 + b^2 = c^2$$

Find the length of the missing side in the following examples. Round answers to the nearest tenth, if necessary. . Write your answer (**number only**) in the given box.

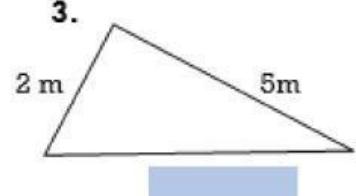
1.



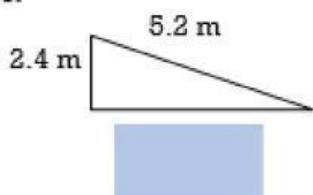
2.



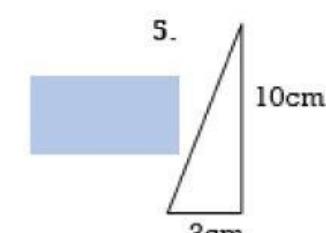
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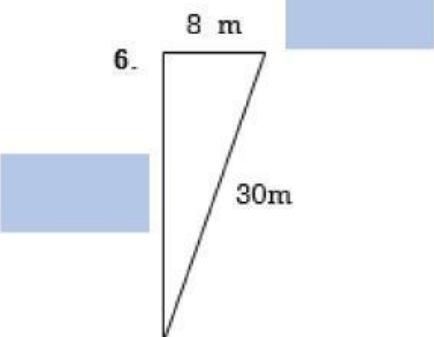
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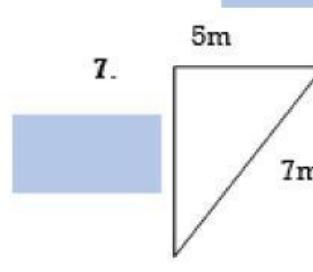
5.



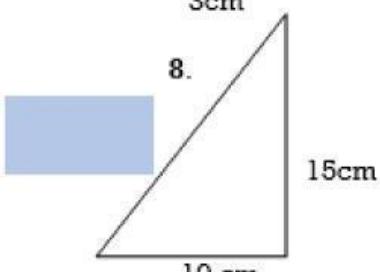
6.



7.



8.



Solve the problem and write your answer in 2 decimal places (**number only**) in the given box.

1. Daniel rides his bicycle 21 km west and then 18 km north. How far is he from his starting point?

2. A square is put together by two triangles. The hypotenuse is 11 cm and width of 8 cm. Find the height of the triangle.

3. Find the hypotenuse of a triangle that has a 13 cm leg and a height of 7 cm.

4. In a right-triangle shaped house, the roof is 51 feet long and the base of the house is 29 feet across. Calculate the height of the house.

5. John is trying to determine the length of the staircase he will need for a deck that is 12 feet high. He wants to start the stairs 21 feet from the deck.

6. A triangle shaped paper's height is 18 cm and width is 10 cm. Find the hypotenuse of the paper.

7. Find the hypotenuse of a triangle that has an 8 cm width and a height of 12 cm.

8. The bottom of a ladder must be placed 5 feet from a building. The ladder is 14 feet long. How far above the ground does the ladder touch the wall?