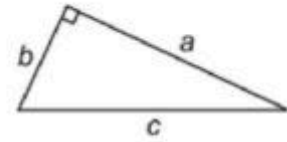


# Pythagorean Theorem Worksheet

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

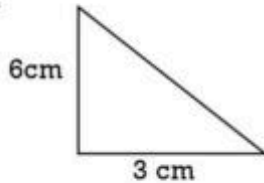
<b>Remember</b>	
$c^2 = a^2 + b^2$	$a^2 = c^2 - b^2$



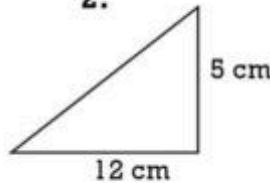
$$a^2 + b^2 = c^2$$

Find the length of the missing side in the following examples. Round answers to the nearest tenth, if necessary. **Please do and show all work on a separate piece of loose leaf!**

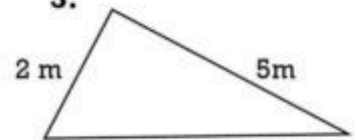
1.



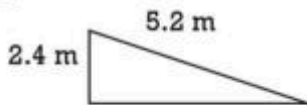
2.



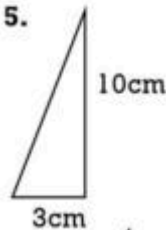
3.



4.



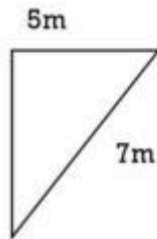
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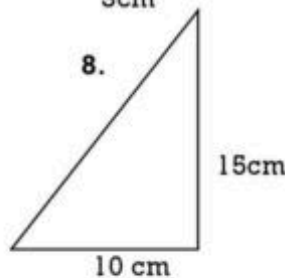
6.



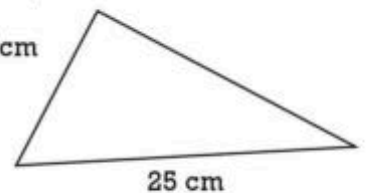
7.



8.



9. 8cm



What is the length of the missing side for the following right angle triangles? **Show all work on a separate piece of loose leaf!**

10.  $a = 3$ ;  $b = 4$ ;  $c = ?$

12.  $a = 4$ ;  $b = 2$ ;  $c = ?$

11.  $a = 6$ ;  $b = ?$ ;  $c = 16$ ;

13.  $a = ?$ ;  $b = 3.5$ ;  $c = 4.2$

14. A ladder is leaning against the side of a 10m house. If the base of the ladder is 3m away from the house, how tall is the ladder? **Please draw a diagram and show all work.**