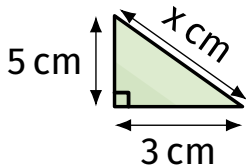


Push Tasks

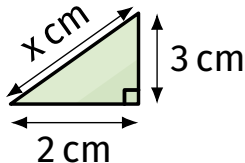


Every hypotenuse on this page is a non-perfect-square surd. Leave each answer in simplified surd form, e.g. $\sqrt{50} = 5\sqrt{2}$.

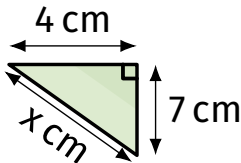
1.



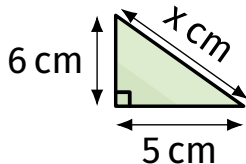
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3.



4.

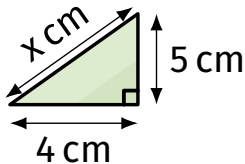


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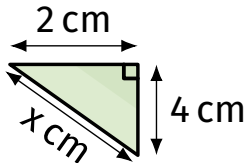


Every hypotenuse on this page is a non-perfect-square surd. Leave each answer in simplified surd form, e.g. $\sqrt{50} = 5\sqrt{2}$.

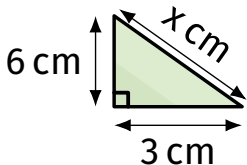
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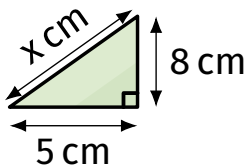
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7.



8.

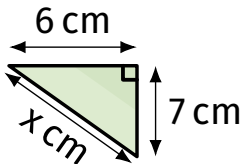


Push Tasks

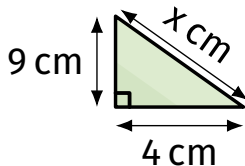


Every hypotenuse on this page is a non-perfect-square surd. Leave each answer in simplified surd form, e.g. $\sqrt{50} = 5\sqrt{2}$.

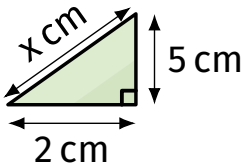
9.



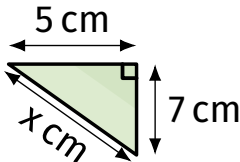
10.



11.



12.



Push Tasks



Leave each numeric answer as a simplified surd. Question 16 asks you to explain, not calculate.

13. A rectangular gate is 2 m high and 7 m wide. Find the length of a diagonal brace fitted corner to corner, as a simplified surd.

14. A rectangle measures 3 m by 9 m. Find the length of its diagonal, as a simplified surd.

15. Two hikers start at the same point. One walks 6 km due north, the other walks 11 km due east. Find the straight-line distance between them, as a simplified surd.

16. Explain why the diagonal of a square with side length s can always be written as $s\sqrt{2}$.