

Mixed Pythagoras Revision



Apply Pythagoras' theorem to find missing sides, check for right angles, and solve real-world problems.

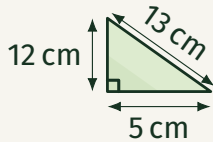
Name _____

Date _____

Show your working

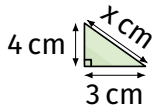
Use $a^2 + b^2 = c^2$ to find missing sides or check if three numbers form a right-angled triangle. Explain your reasoning.

Worked example Is this a right-angled triangle?

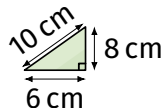


Check using $a^2 + b^2 = c^2$: $5^2 + 12^2 = 25 + 144 = 169$ $13^2 = 169$ ✓ Yes, this is a right-angled triangle.

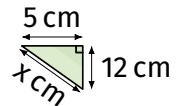
1. Find the missing side.



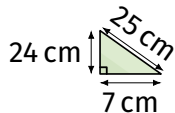
2. Is this a right-angled triangle?



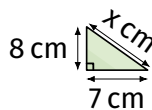
3. Find the missing side.



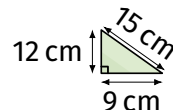
4. Is this a right-angled triangle?



5. Find the missing side to 1 d.p.



6. Is this a right-angled triangle?



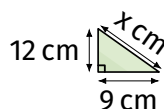
7. A rectangle is 6 cm wide and 8 cm tall. Find the diagonal.

8. A ladder is 13 m long. Its base is 5 m from the wall. How high up the wall?

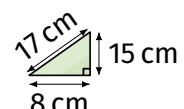
9. Is a triangle with sides 9, 40, and 41 cm right-angled? Explain.

10. A square has side length 7 m. Find the diagonal to 1 d.p.

11. Find the missing side.



12. Is this a right-angled triangle?

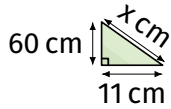


13. An isosceles triangle has equal sides 10 cm and base 12 cm. Find the height.

14. A rectangle is 15 cm by 20 cm. Find the diagonal.

15. A ladder reaches 12 m up a wall and is 5 m from the base. Find the ladder length.

16. Find the missing side to 1 d.p.



17. Is a triangle with sides 13, 84, and 85 cm right-angled? Show your working.

18. A square has diagonal 10 m. Find the side length to 1 d.p.
