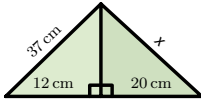


Push Tasks

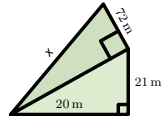


Find x exactly and to 1 d.p. Show all steps.

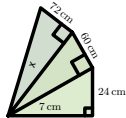
1.



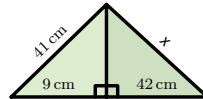
2.



3.



4.

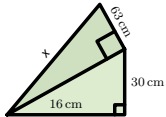


Push Tasks

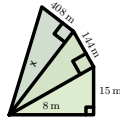


Find x . Keep intermediate values exact.

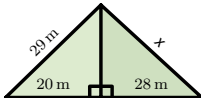
5.



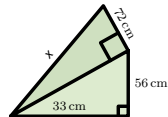
6.



7.



8.

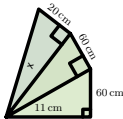


Push Tasks



Find x . Do not round along the way.

9.



10. An isosceles triangle has equal sides 29 cm and height 21 cm. Find the base, then the area.

11. A square has area 200 m^2 . Find the side, then the diagonal to 1 decimal place.

12. A rectangle is 24 m by 7 m. Compare the diagonal route with walking along two sides.

Push Tasks



Solve multi-step problems: find intermediate values exactly.

13. An isosceles triangle has sides 6.5 m, 6.5 m, and 7.4 m. Find the height, then the area, then the perimeter.

14. A rectangle has diagonal 20 cm and length 4 cm longer than its width. Find the dimensions.

15. A right triangle has hypotenuse 65 cm and one short side 16 cm. Find the other short side, then the area.

16. A boat sails 80 km east and 110 km south. Find the direct distance, then round to 1 decimal place and compare with 136 km.

Push Tasks



Complete both steps: find the hidden length, then reason about the result.

17. A screen is 48 cm wide and 36 cm high. Find the diagonal, then explain why it is a scaled triple.

18. A square has diagonal 14 cm. Find the side to 1 decimal place, then the perimeter to 1 decimal place.

19. A triangle has area 40 cm^2 and base 10 cm. If it is isosceles, find each equal side, then the perimeter.

20. A rectangle is 11 cm by 60 cm. Find its diagonal exactly, then explain why 61 cm is special.

Push Tasks



Multi-step: use Pythagoras, then complete the calculation.

21. A regular hexagon has side 8 cm. Find its total area exactly in surd form or to 1 decimal place.

22. A rectangle has diagonal 13 cm and is 7 cm longer than it is wide. Find the width, length, and area.

23. The distance from (1, 1) to (13, 6) is used as the hypotenuse of another right triangle with one short side 5. Find the other short side exactly.

24. A square patio has side 7 m. Find the diagonal, then say if a 10 m cover strip is enough.

Push Tasks



Solve and explain: two steps including reasoning about your answer.

25. A right triangle has short sides 9 cm and 12 cm. Find the hypotenuse, then compare it with 15 cm.

26. Why is 'find the hidden height first' such a common move in multi-step Pythagoras questions?

27. Write your own two-step Pythagoras question where the first answer is used to find an area or perimeter.