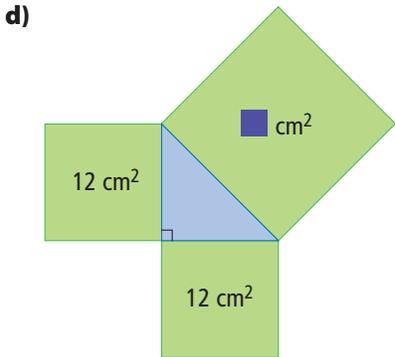
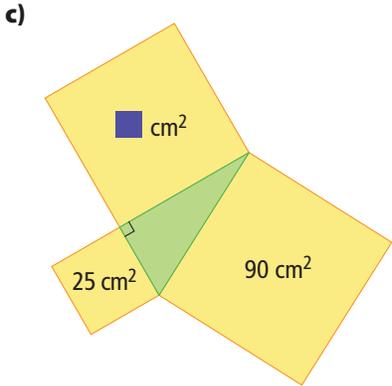
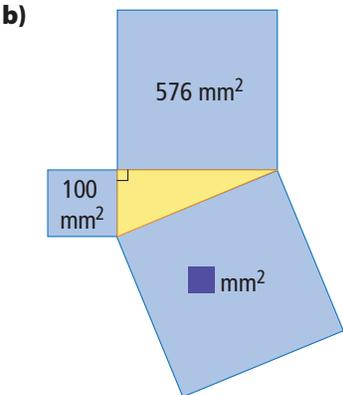
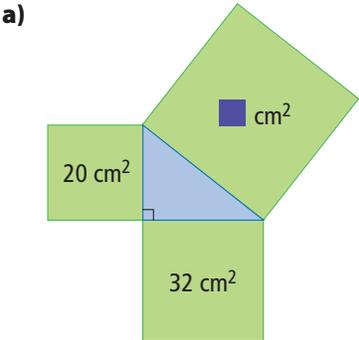
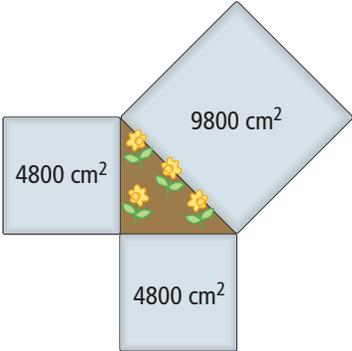


**Apply**

12. Use the Pythagorean relationship to find the unknown area of each square.



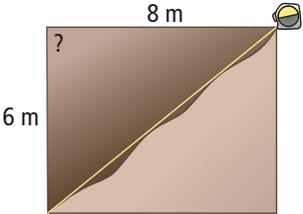
13. A small triangular flower bed has a square stepping stone at each of its sides. Is the flower bed in the shape of a right triangle? Explain your reasoning.



14. Show whether each triangle in the table is a right triangle.

Triangle	Side Lengths (cm)
A	9, 12, 15
B	7, 8, 11
C	7, 24, 25
D	16, 30, 34
E	10, 11, 14

15. Construction workers have begun to dig a hole for a swimming pool. They want to check that the angle they have dug is  $90^\circ$ . They measure the diagonal as shown to be 9.5 m. Is the angle  $90^\circ$ ? Explain your reasoning.



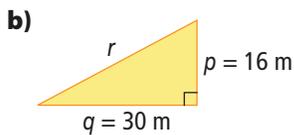
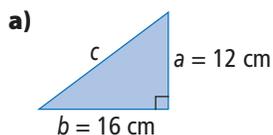
16. Baldeep is building a wooden box for storing coloured pencils. The box will have rectangular sides that are 12 cm wide and 20 cm long. Show how Baldeep can be sure the sides are rectangular, without using a protractor.

# Check Your Understanding

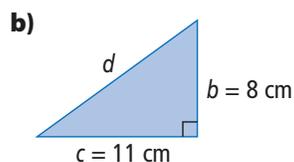
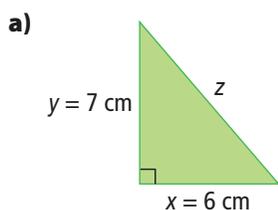
## Practise

For help with #3 and #4, refer to Example 1 on page 102.

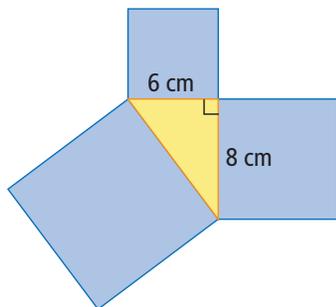
3. Determine the length of each hypotenuse.



4. What is the length of each hypotenuse? Give your answer to the nearest tenth of a centimetre.



5. a) What is the area of each square attached to the legs of the right triangle?

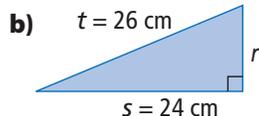
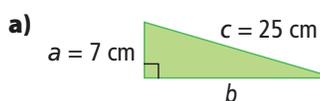


b) What is the area of the square attached to the hypotenuse?

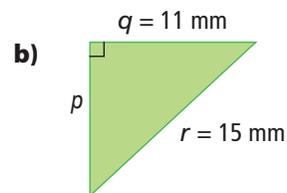
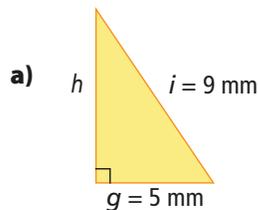
c) What is the length of the hypotenuse?

For help with #6 and #7, refer to Example 2 on page 102.

6. Determine the length of the leg for each right triangle.

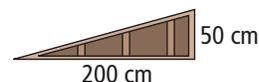


7. What is the missing length of the leg for each triangle? Give your answer to the nearest tenth of a millimetre.

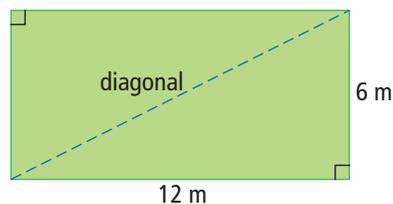


## Apply

8. The side view of a ramp at a grocery store is in the shape of a right triangle. Determine the length of the ramp, to the nearest centimetre.



9. Tina wants to construct a path along the diagonal of her yard. What length will the path be? Express your answer to the nearest tenth of a metre.



10. What is the minimum distance the player at third base has to throw the ball to get the runner out at first base? Express your answer to the nearest tenth of a metre.

