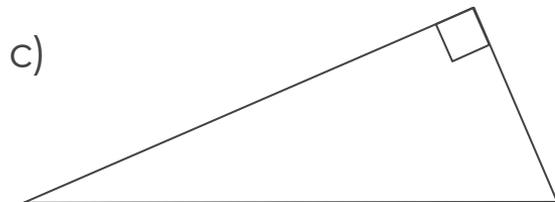
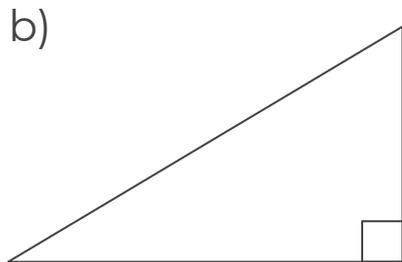
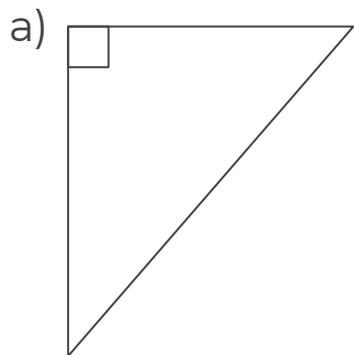


# Know and understand Pythagoras' theorem



# Know and understand Pythagoras' theorem

1. Identify the hypotenuse in each of these right-angled triangles.



2. Work out the square of each value.

a) 6            b) 15

c) 0.9            d) 2.5

3. Work out the positive square root of each value.

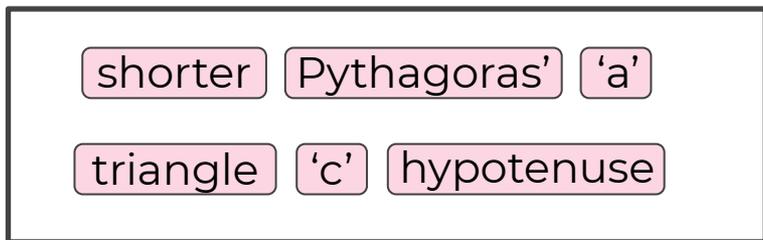
a) 25            b) 144

c) 289            d) 3.61



## Know and understand Pythagoras' theorem

4. Complete the sentences using the word bank.



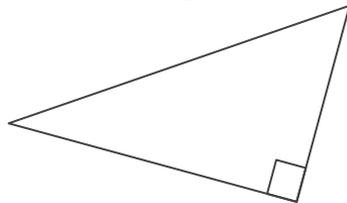
The \_\_\_\_\_ is the longest side of a right-angled \_\_\_\_\_.

\_\_\_\_\_ theorem says that the hypotenuse should be labelled with the letter \_\_\_\_.

The \_\_\_\_\_ sides are labelled with the letters \_\_\_\_ or 'b'.

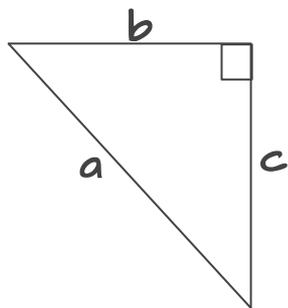
It does not matter which way around you label the shorter sides.

5. Label this triangle with 'a', 'b' and 'c'.



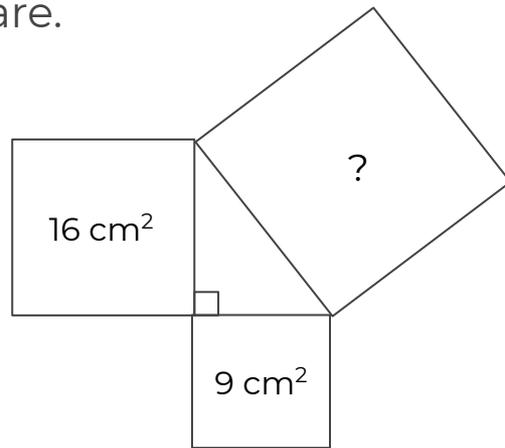
## Know and understand Pythagoras' theorem

6. Liam is labelling a right-angled triangle according to Pythagoras' theorem  $a^2 + b^2 = c^2$



Mia says he is wrong.  
Who do you agree with? Explain why.

7. Find the area of the biggest square.



Can you use this to find the length of the hypotenuse?

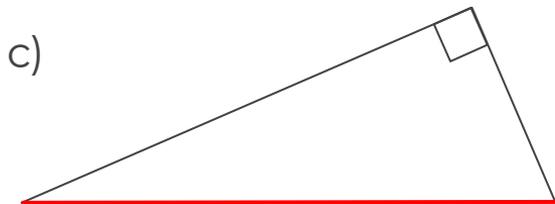
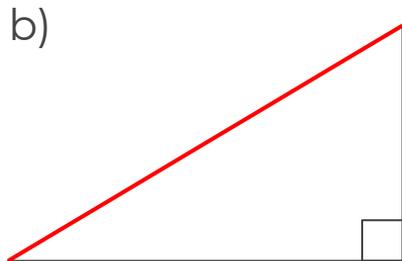
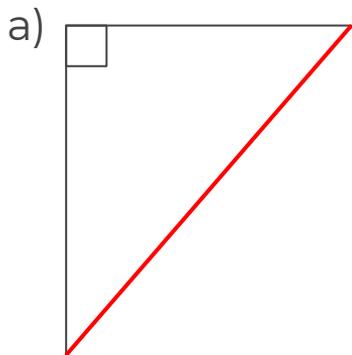


# Answers



# Know and understand Pythagoras' theorem

1. Identify the hypotenuse in each of these right-angled triangles.



2. Work out the square of each value.

a)  $6 = 36$

b)  $15 = 225$

c)  $0.9 = 0.81$

d)  $2.5 = 6.25$

3. Work out the positive square root of each value.

a)  $25 = 5$

b)  $144 = 12$

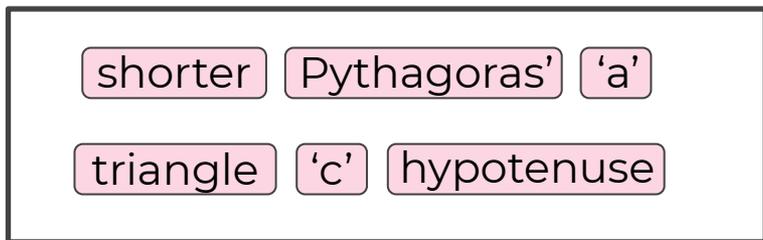
c)  $289 = 17$

d)  $3.61 = 1.9$



## Know and understand Pythagoras' theorem

4. Complete the sentences using the word bank.



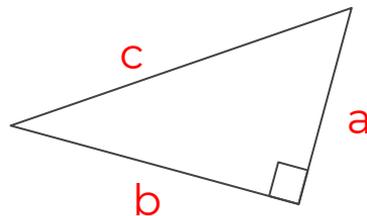
The hypotenuse is the longest side of a right-angled triangle.

Pythagoras' theorem says that the hypotenuse should be labelled with the letter 'c'.

The shorter sides are labelled with the letters 'a' or 'b'.

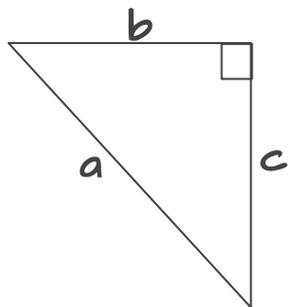
It does not matter which way around you label the shorter sides.

5. Label this triangle with 'a', 'b' and 'c'.



## Know and understand Pythagoras' theorem

6. Liam is labelling a right-angled triangle according to Pythagoras' theorem  $a^2 + b^2 = c^2$

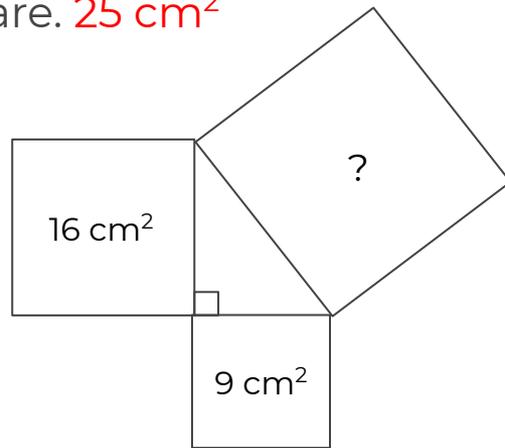


Mia says he is wrong.

Who do you agree with? Explain why.

Mia, the side labelled 'a' should be 'c'.

7. Find the area of the biggest square.  $25 \text{ cm}^2$



Can you use this to find the length of the hypotenuse?  $5 \text{ cm}$

