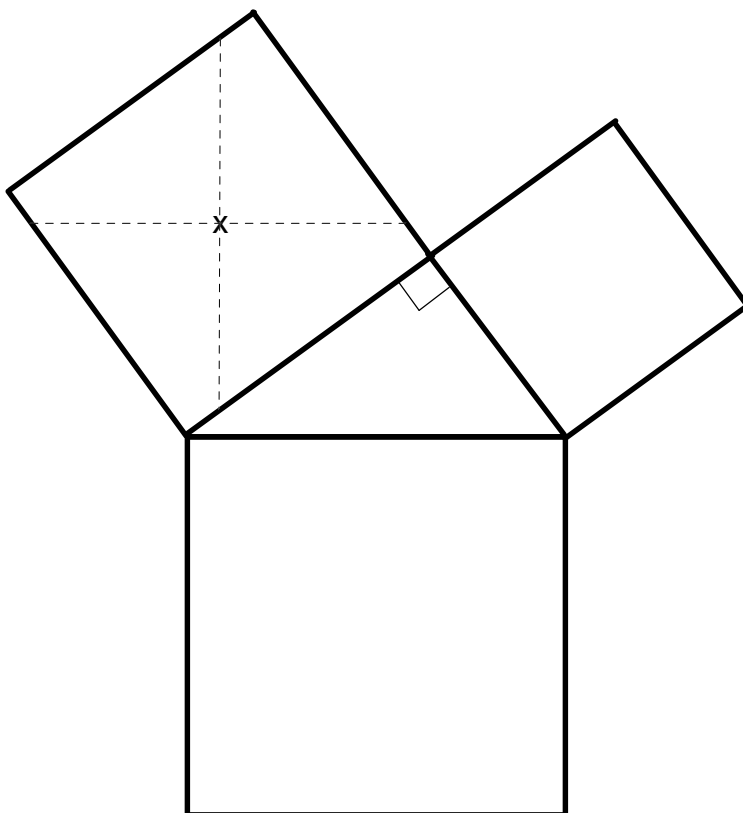
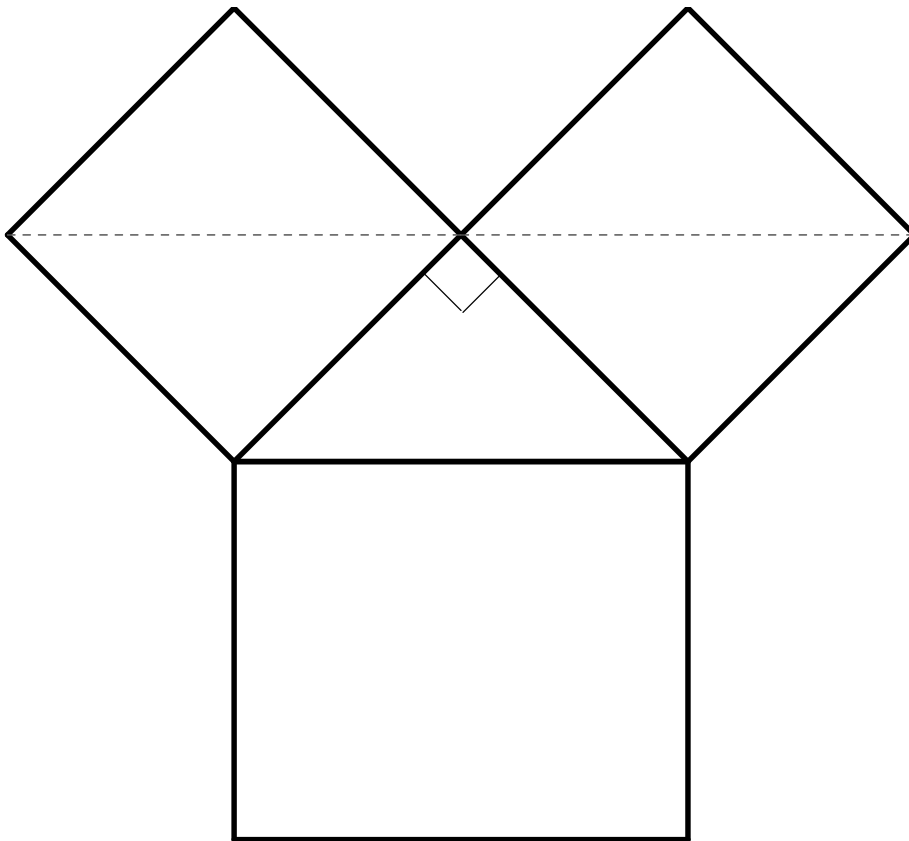


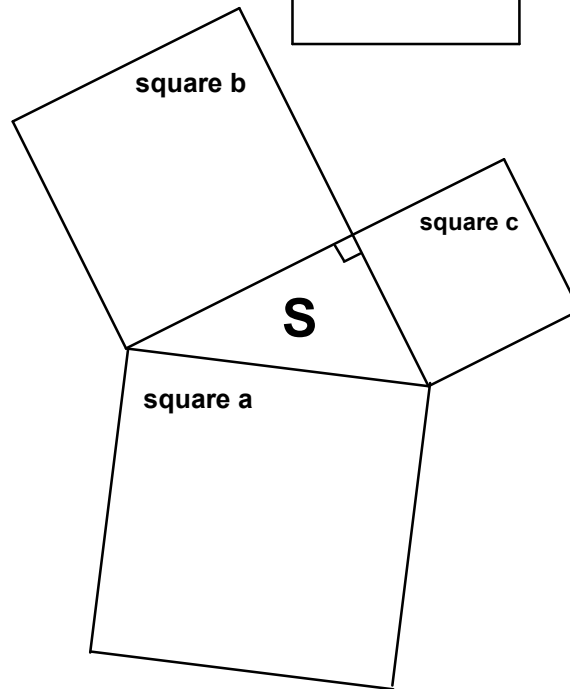
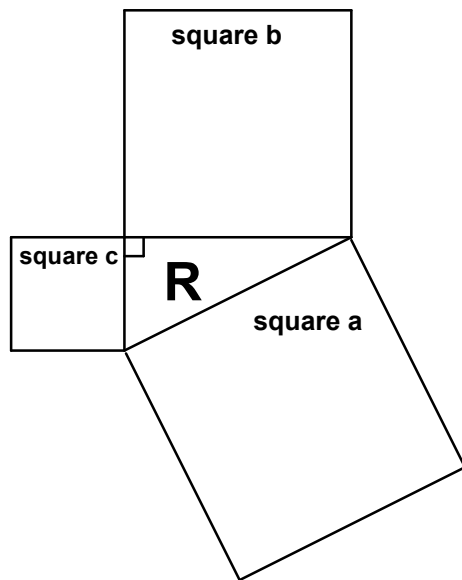
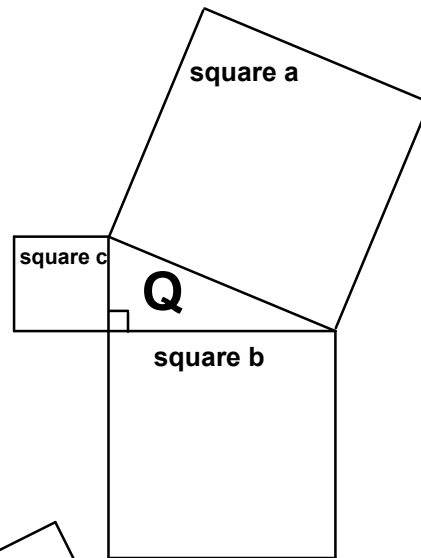
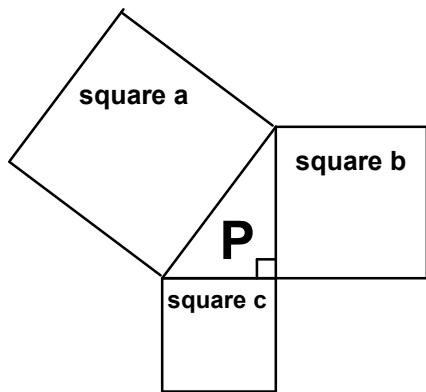
Pythagoras 1

You will need a ruler and scissors for this activity.
Follow the instructions from your maths teacher.



Pythagoras 2

In each diagram, measure the length of the squares and calculate their areas. Write each area on the inside of the square and complete the table at the foot of the page. Try to be as accurate as possible and work to 1 decimal place.



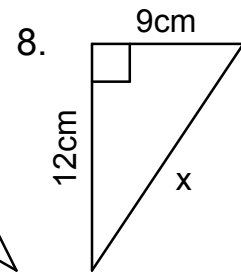
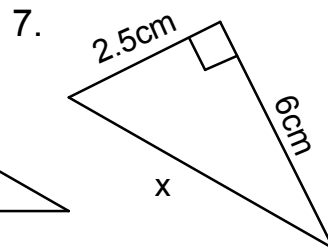
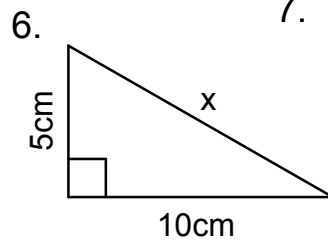
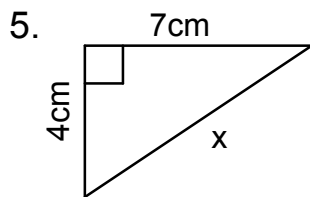
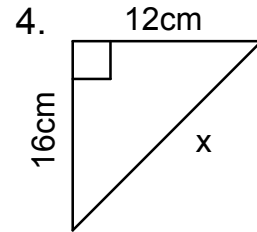
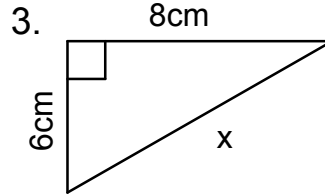
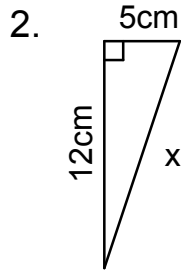
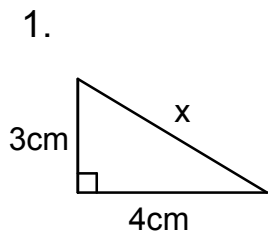
Triangle	Area \square a a^2	Area \square b b^2	Area \square c c^2	$b^2 + c^2$
P				
Q				
R				
S				
your own				

Can you see anything special in the table? Can you write a formula connecting a , b and c ?

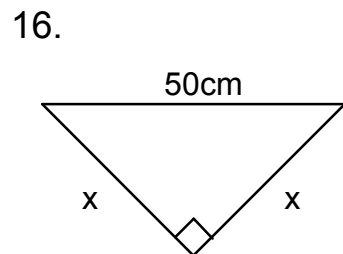
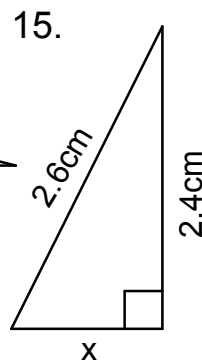
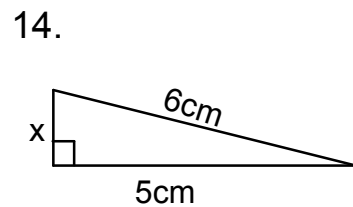
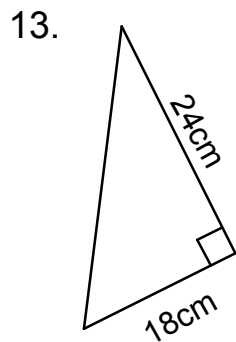
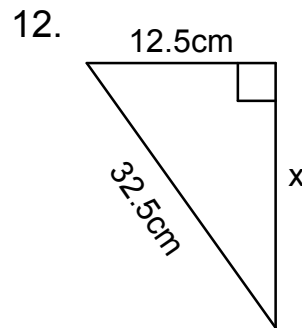
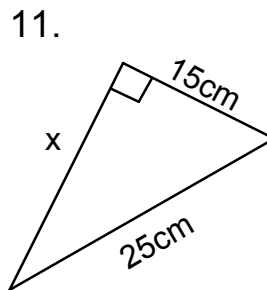
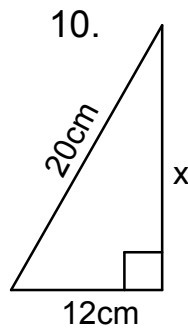
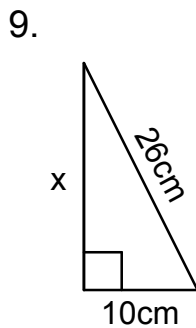
Pythagoras 3

The theorem of Pythagoras can be written as $a^2 = b^2 + c^2$.

Use this formula to calculate x (the hypotenuse) in each of the following triangles (do not measure, the triangles are not drawn to scale).



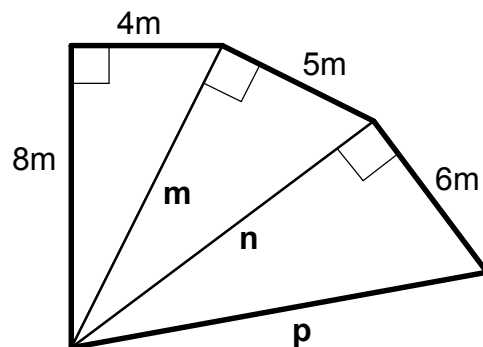
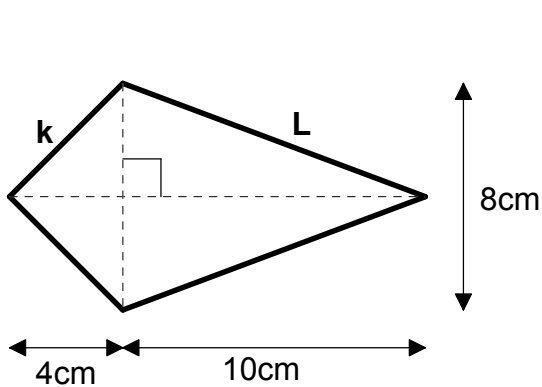
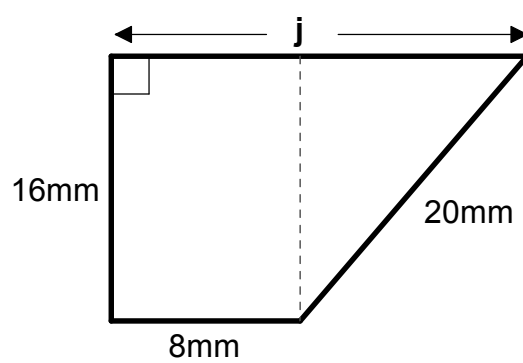
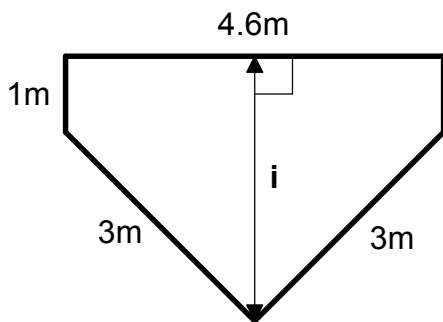
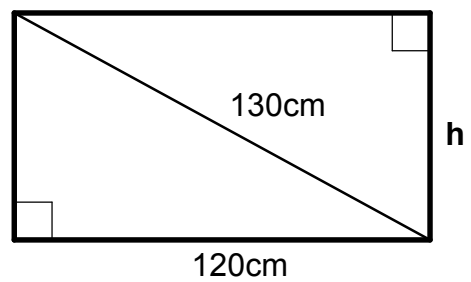
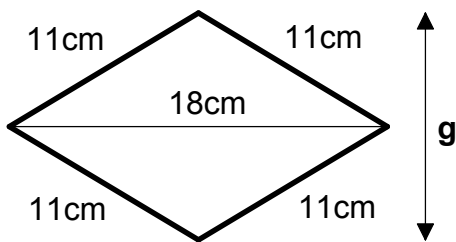
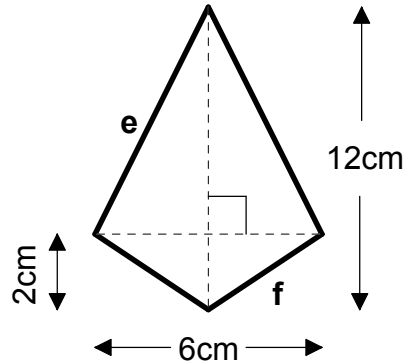
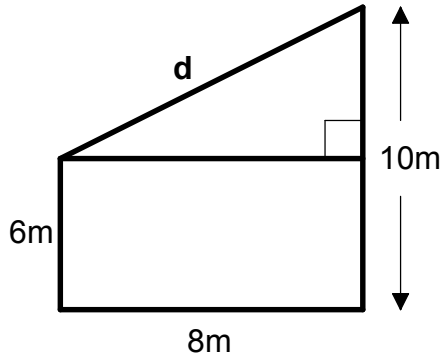
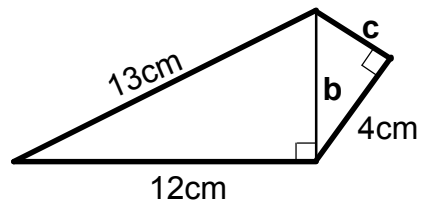
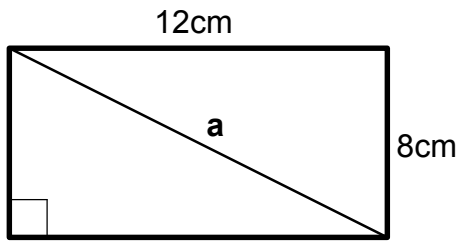
Some of these are a little more tricky..



17. In $\triangle ABC$, $AB = 28\text{cm}$, $BC = 21\text{cm}$ and angle $BAC = 90^\circ$. Sketch the triangle and find the length of AC .

Pythagoras 4

Find the lengths of the sides labelled a, b, c... etc., in each of the following compound shapes (work to 1 decimal place).



Pythagoras 5

Thinking in 3 dimensions. Find the lengths of the sides labelled a, b, c... etc., in each of the following 3-d shapes (work to 1 decimal place).

