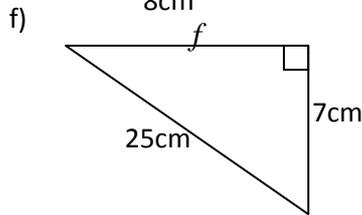
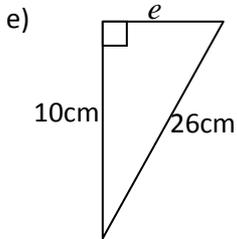
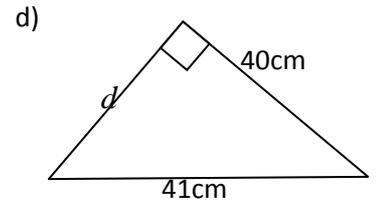
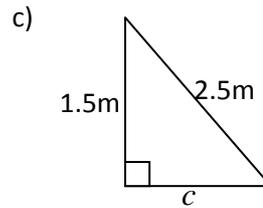
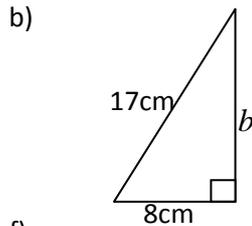
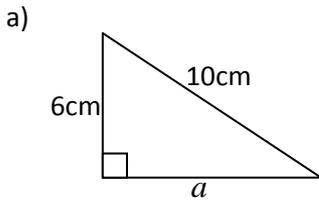


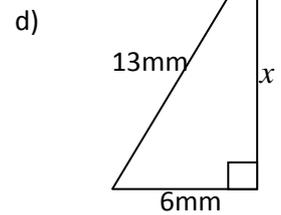
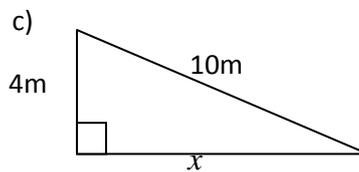
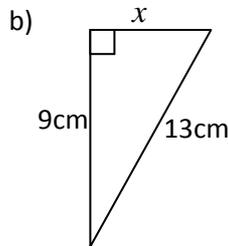
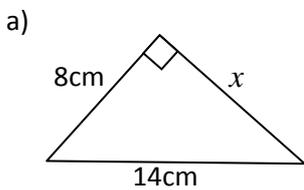
Pythagoras – finding a shorter side

Diagrams **NOT** drawn to scale

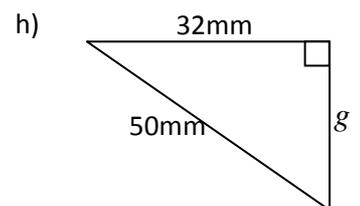
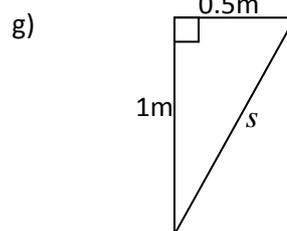
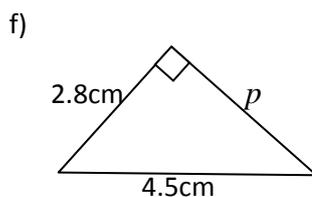
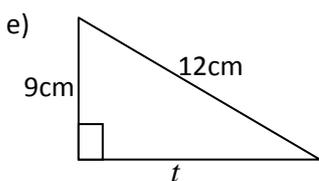
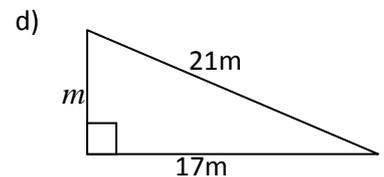
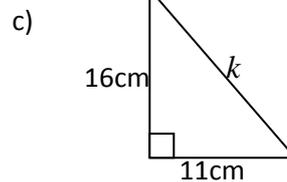
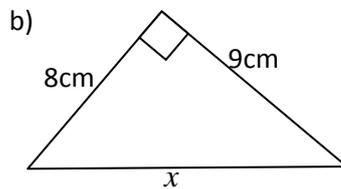
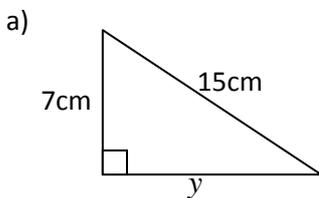
1. Find the missing length in these right-angled triangles, none of these are the hypotenuse.



2. Find the missing length, x , in these right-angled triangles, give your answers to 1 decimal place



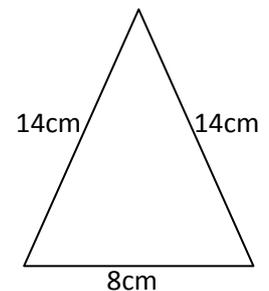
3. Here is a **mixture** of questions, in some you have to find the hypotenuse, in others you have to find one of the other sides. Decide carefully before you begin whether you will be adding your squares (for hypotenuse) or subtracting them (for shorter sides). Find the missing length, giving answers to 1 decimal place:



4. A man walks 10km north then 24km east. How far is he from his starting position (Draw a diagram to help you).

5. A rectangular door measures 2.5m by 1m. How long is the diagonal of the door?

6. To the right is an isosceles triangle. Use Pythagoras to find the height of the triangle.
Hint – you will need to cut the triangle in half to get a right angled triangle first.



7. A cylindrical container has diameter 8cm and height 15cm. My pencil measures 18cm. Can the pencil fit completely inside the container?

8. An equilateral triangle has sides of length 5cm. Calculate the height of the triangle.