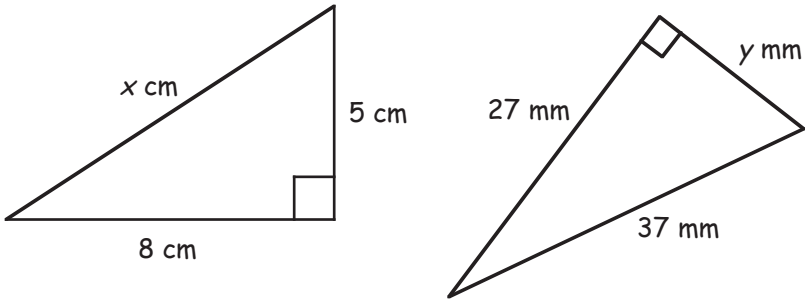
Assessment 2

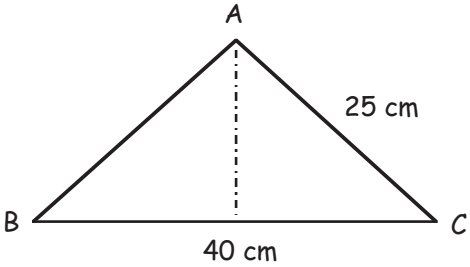
Pythagoras/Percentages

You may use a calculator in this assessment, but you must **show all working**.
Unless specified, answer correct to **3 significant figures**.

1. Calculate the lengths of the sides marked x and y here.



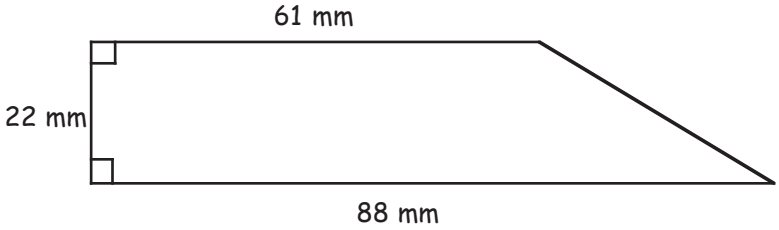
2. Triangle ABC is isosceles with AB = AC.



(a) Calculate the height of triangle ABC.

(b) Now calculate its area.

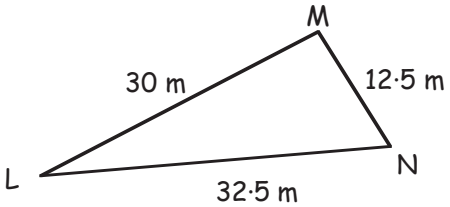
3. Calculate the **perimeter** of this shape.



4. Draw a set of coordinate axes and plot the two points P(–6, 4) and Q(5, –2).

Calculate the length of the line PQ to 2 decimal places.

5. Prove that triangle LMN is a right angled triangle.



6. James left £600 in his building society account where the interest rate was 4·5% p.a.

Calculate how much his £600 savings would be worth if he left it there for 3 years.

7. "Torrisons" bought in a 45 kg bag of onions for £15·00.

The onions were packed into 3 kg bags and sold for £1·20 per bag.

Calculate the total profit and express it as a percentage of the cost price.

8. Since the beginning of the week, my sunflower has grown by 15% to a new height of 138 cm.

How tall must my sunflower plant have been at the beginning of the week ?