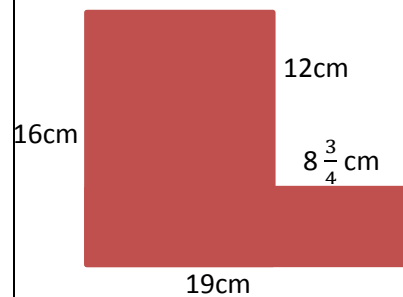
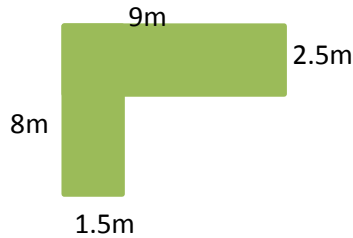
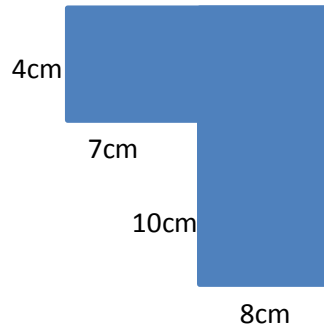
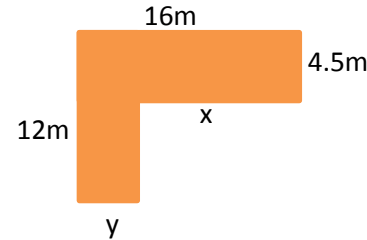


Measure and calculate the perimeter of composite rectilinear shapes in cm and m.

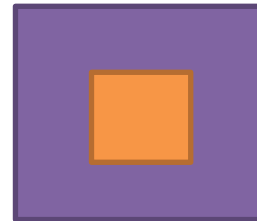
- Find the perimeter of the following shapes.



- The length labelled 'x' is a multiple of 1.8. What could 'y' be? Explain to a partner why you have chosen these measurements.



- Here is a square inside another square.

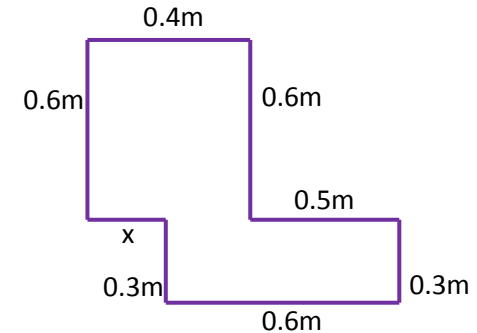


The perimeter of the inner square is 16cm. The outer square's perimeter is four times the size of the inner square. What is the length of one side of the outer square? How do you know? What do you notice?

- Investigate the different ways you can make composite rectilinear shapes with a perimeter of 54cm.
- Amy and Ayesha are making a collage of their favourite football team.

They want to make a border for the canvas.

Here is the canvas.



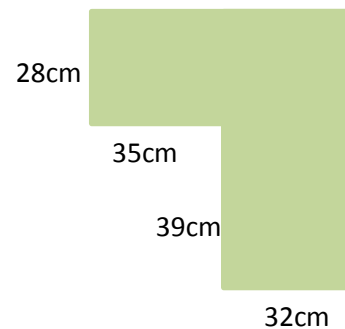
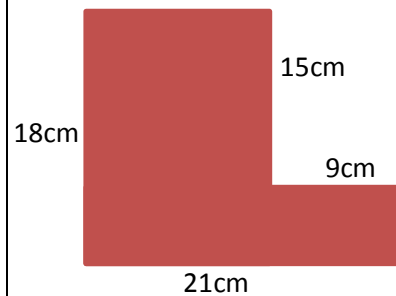
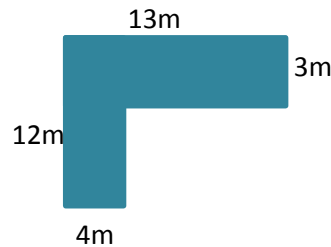
They have a roll of blue ribbon that is 245cm long and a roll of red ribbon that is 2.7m long.

How much ribbon will they have left over?

## Perimeter and Area

Calculate and compare the area of rectangles (including squares), and including using standard units,  $\text{cm}^2$ ,  $\text{m}^2$  estimate the area of irregular shapes.

- Estimate and work out the area of these shapes. Find the unknown sides first.



Were you close?

- Put these amounts in order starting with the smallest.

$2.7\text{m}^2$

$27\text{m}^2$

$27000\text{cm}^2$

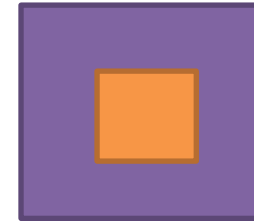
How do you know?

- Wiktorija says,

The area of squares and square numbers are related.

Do you agree?  
Explain why.

- Here is a square inside another square.



The area of the inner square is  $16\text{m}^2$ .  
The outer square's area is four times the size of the inner square.  
What is the length of one sides of the outer square?  
How do you know?

- Investigate how many ways you can make different squares and rectangles with the same area of  $84\text{cm}^2$ .  
What strategy did you use?

## Measures- Volume

Estimate volume [for example using 1cm<sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]

### Complete practically

- Here is a litre jug with some water in.



Here is a glass that holds 300ml. It also has some water in.



Estimate how much liquid there is altogether.

### Complete practically

- Here is one side of a cuboid.



What could the whole cuboid look like?  
Investigate the different types with a partner.

### Complete practically

- 1 litre is approximately equal to 1 and three quarter pints.  
Use this information to draw and work out how many pints are in 10 litres.  
*(A bar model will help.)*