

Maths

Area and Perimeter – Children have been set mathematics tasks on this topic to be completed for Lesson 4.

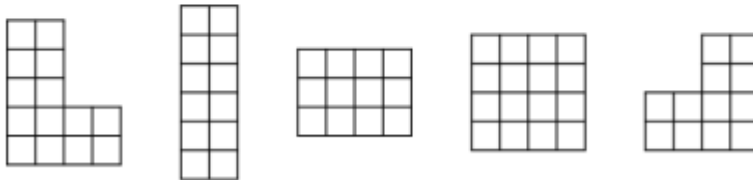
Lesson 1

Area is the space inside of a 2d shape.

In these examples each square is 1cm squared. To calculate the area you can simply count the squares.

Sort the shapes into the Carroll diagram.

	Quadrilateral	Not a quadrilateral
Area of 12 cm ²		
Area of 16 cm ²		

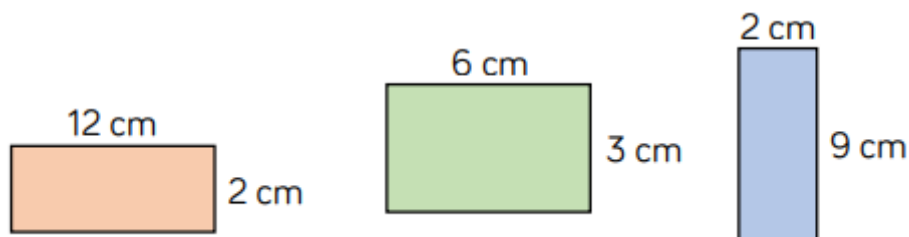


Now draw another shape in each section of the diagram.

When we don't have the squares neatly arranged inside our shapes we have to use the length of the sides to calculate the area of our shape. For example:

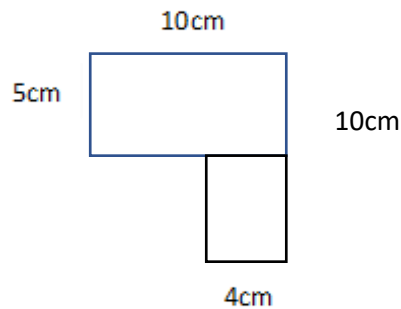


This shape is 4cm wide and 3cm high. To work out the area we complete 3×4 to give us 12cm squared. Use this to calculate the areas of these shapes.

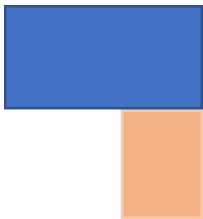


When you have a compound shape – it looks like two shapes put together – you have to separate the shapes and work out the area of each before adding the answers together.

The following shape is a compound shape:



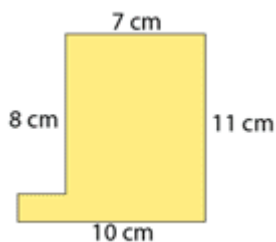
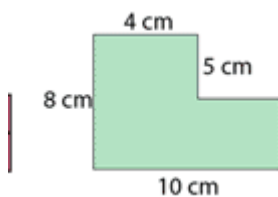
To work out the area we can split it into these two shapes. We know the length and width of the blue shape is 10cm by 5cm. This means its area is 50cm squared.

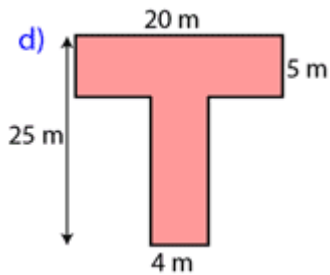
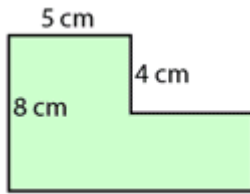


We only know one measurement of the orange shape – 4cm – we have to work the other measurement out using what we know. We know that the total size of the right side is 10cm. We know the left side measurement of the blue shape is 5cm. This means the side length of the orange shape can be worked out by calculating $10 - 5$. This tells us the orange shape has a length and width or 5 by 4. To calculate the area we do 5×4 giving us 20cm squared.

The total area of the shape is calculated by adding the area of the two shapes together. $50 + 20 = 70$ so the shape has an area of 70cm squared.

Now try these ones:

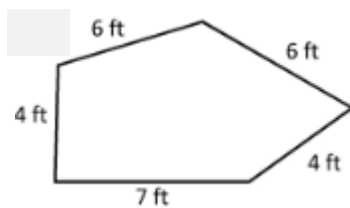
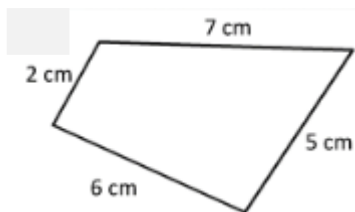
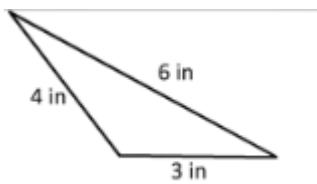




Lesson 2

Perimeter is measuring the distance around the outer edge of a shape. To do this you have to add together the length of all of the sides of the shape.

Try with these ones:



We can also use a perimeter to work out the missing length of sides of shapes. We take the total perimeter and subtract the sides we know.

This square has a perimeter of 4.4cm.

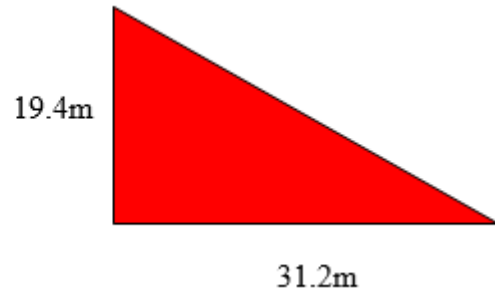
How long is each side?

Show how you worked this out:

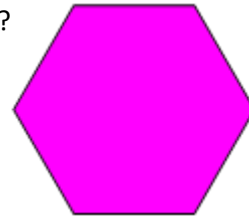


This triangle has a perimeter of 81m.

How long is the missing measurement?



What is the perimeter of a hexagon where each side is 24.6cm long?



A parallelogram has a perimeter of 51.4 km. If side A is 13.1m long, what are the lengths of the other sides?

A=13.1m

B=

C=

D=

Lesson 3

Now you have mastered Area and Perimeter now you are ready to tackle this investigation, good luck.

<https://nrich.maths.org/7280>

Throughout the week

Children should look at learning their four times tables. They can do this through Mathletics and Hit the Button and they should look to spend one hour on this across the week.