

Year 4 Home Learning 15.6.20-19.6.20 Week 11

Maths Support Document

This week we will be looking at Perimeter and Area of a shape. Use the resources provided to support you in your MyMaths activities. Use the 'Maths Answers' document to go through your work with an adult where needed.

Lesson One: Perimeter

On MyMaths complete the two tasks labelled 'Introducing Perimeter' and 'Perimeter'. Before completing the activities, make sure you go through the links and resources below and the online lesson attached to MyMaths. <https://login.mymaths.co.uk/login>

Use the following BBCBitesize Daily Lessons link and the Maths lessons for 13th and 12th of May for supporting videos for explanations around Perimeter. You do not need to complete the activities, only watch the videos.

<https://www.bbc.co.uk/bitesize/tags/z63tt39/year-4-and-p5-lessons>

Learn

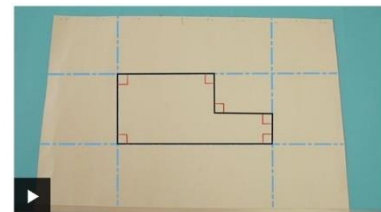
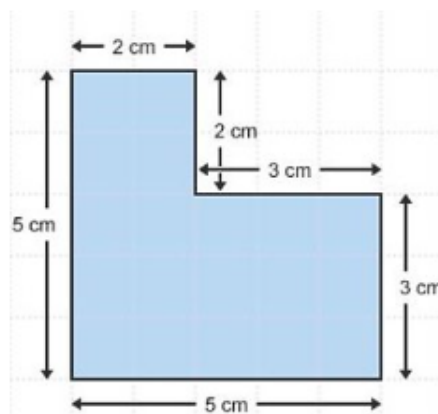
What is the perimeter?



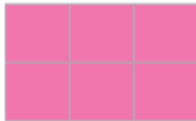
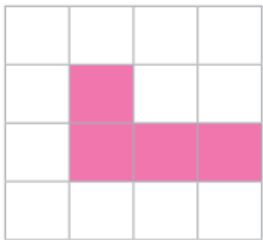


This shape looks much more complicated than a rectangle, but the method of working out the perimeter is exactly the same.

Add together the lengths of all the sides to find it.

$$2 + 2 + 3 + 3 + 5 + 5 = 20$$

The perimeter is 20 cm



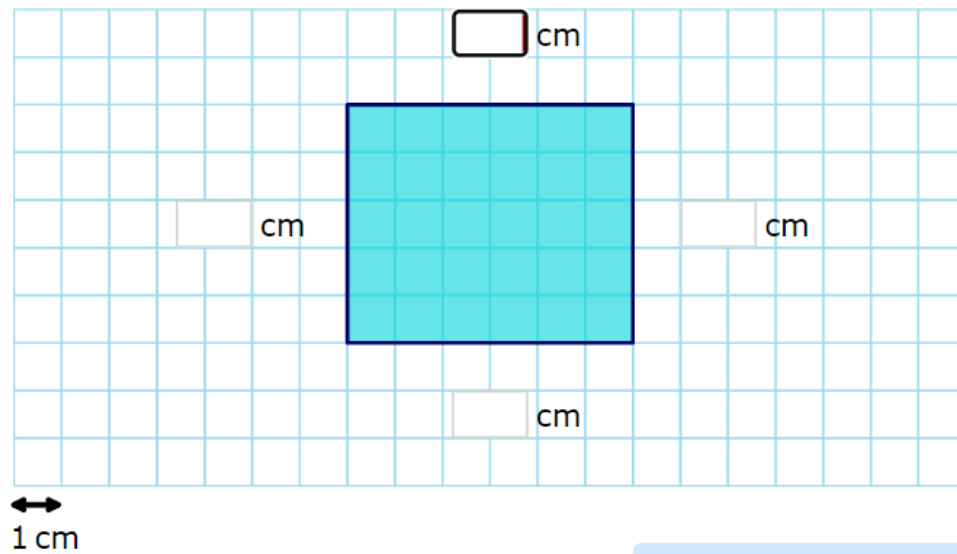
Keywords	Area and Perimeter	Measuring Area
area	Area is the amount of space inside a 2D shape.	We can count squares to find the area of a rectilinear shape.
perimeter	Perimeter is the total distance around the outside of a 2D shape.	 Area = 1 square
centimetres		 Area = 6 squares
metres		 Area = 4 squares
squares		
distance		
millimetres	Units of Measure for Perimeter	Rectilinear Figures
kilometres	km 1 kilometre = 1000 metres m 1 metre = 100 centimetres cm 1 centimetre = 10 millimetres mm	A rectilinear figure is a 2D shape whose sides all meet at right angles (90°).
length		
width		
rectilinear		
right angle		
		

Introducing Perimeter:

Q1 – Finding the perimeter of shapes drawn on a grid

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Complete the measurements.

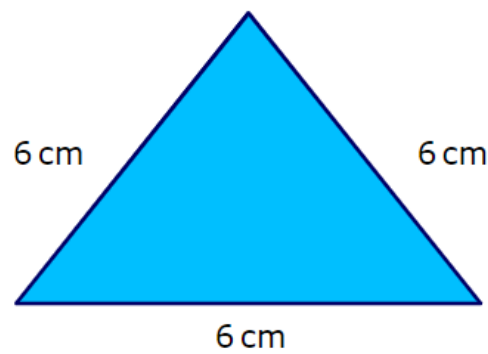


Perimeter = cm

Q2 – Finding the perimeter of shapes not drawn on a grid

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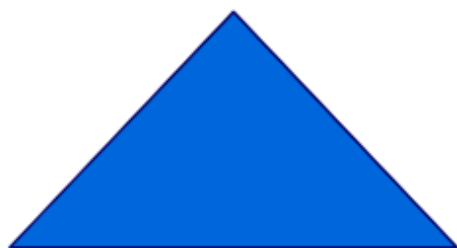
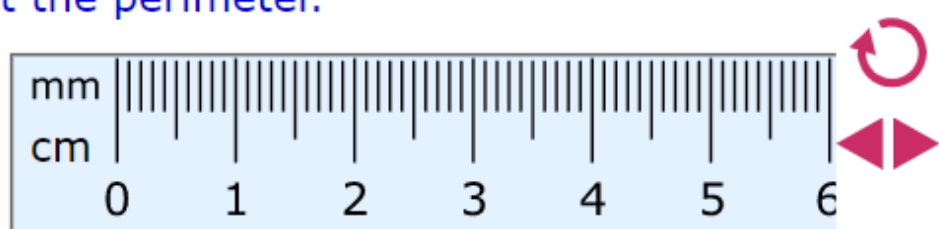
What is the perimeter?



Perimeter = cm

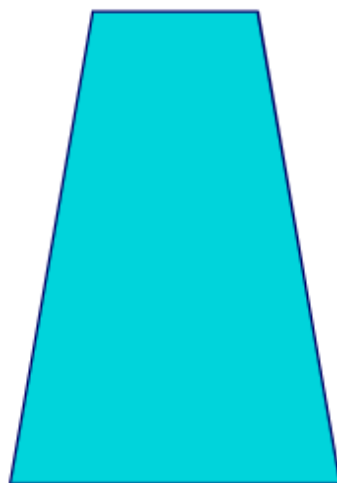
Perimeter:

Measure the edges of each shape with the ruler.
Work out the perimeter.



cm

[2]



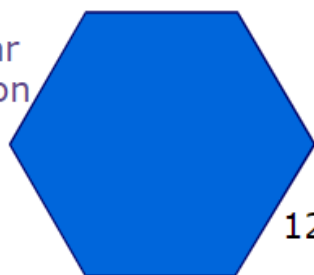
cm

Find the missing lengths. The shapes are not drawn to scale.

perimeter = cm

[2]

regular
hexagon



12 cm

9 cm

rectangle



cm

[2]

Perimeter = 32 cm

8 cm

rectangle

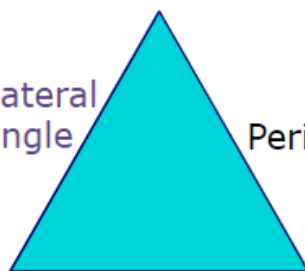


5 cm

perimeter = cm

[2]

equilateral
triangle



Perimeter = 36 cm

cm

[2]

Lesson Two: Area

On MyMaths, complete the activity labelled 'Introducing Area'. Use the resources provided and complete the online lesson attached to the activity, before starting the homework. <https://login.mymaths.co.uk/login>

Watch the videos on this link to introduce you to Area:

<https://www.bbc.co.uk/bitesize/topics/zjbq87h/articles/zwqt6fr>

How Is area measured?

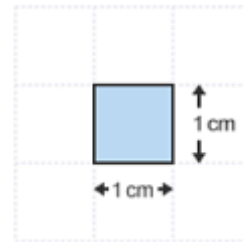
The area of a shape is a measure of the two-dimensional space that it covers.

The area can be found by counting the squares within the shape. All the squares must be the same size.

Here, each square has sides of 1 cm.

We say that it has an area of **1cm squared**.

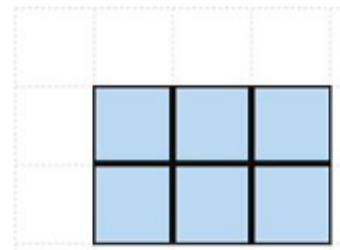
This can be written as **1cm²**. The small 2 means 'squared'.



Can you see that this rectangle contains six squares?

It has two rows of three squares.

Each of the squares has an area of **1cm²**, so the area of the rectangle is **6cm²**.



Introducing Area:

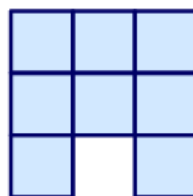
Q1 – Finding area by counting squares

What is the area of each shape?

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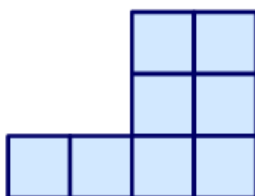
Area = cm²



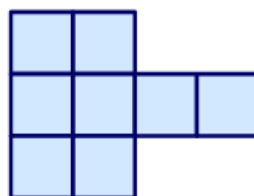
Area = cm²



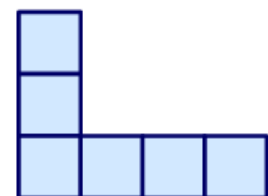
Area = cm²



Area = cm²

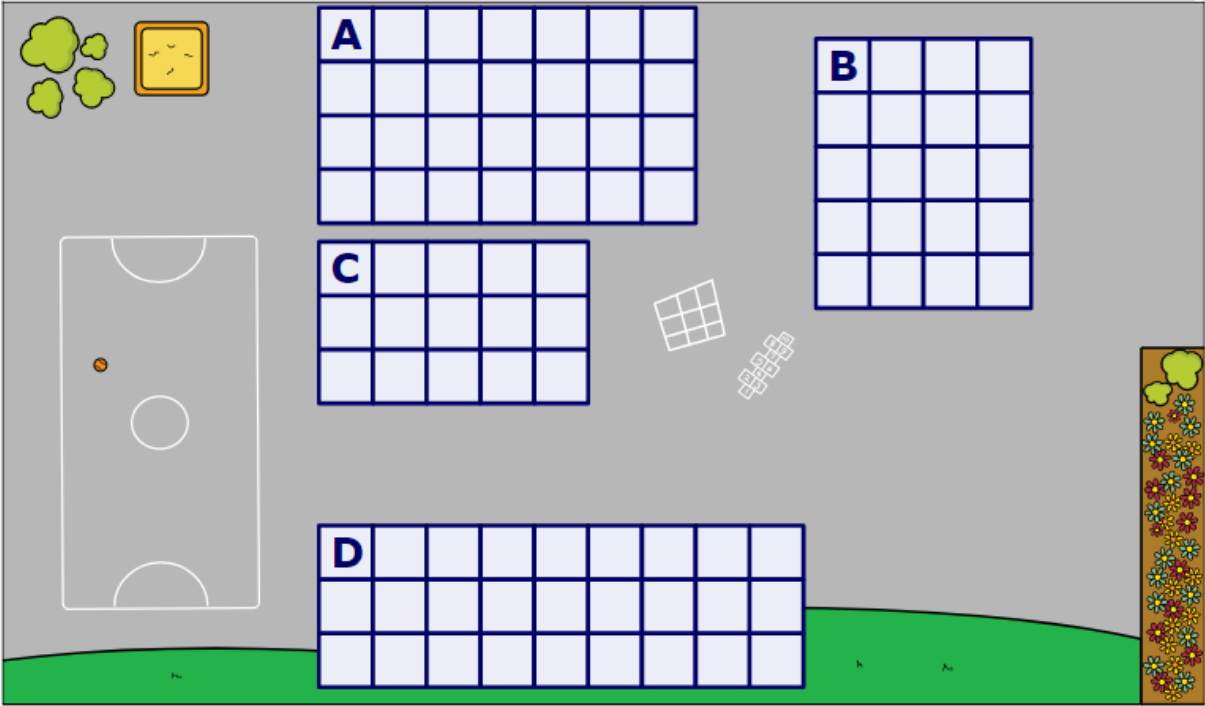


Area = cm²



Area = cm²

Calculate the area of each of the school buildings. 1 m

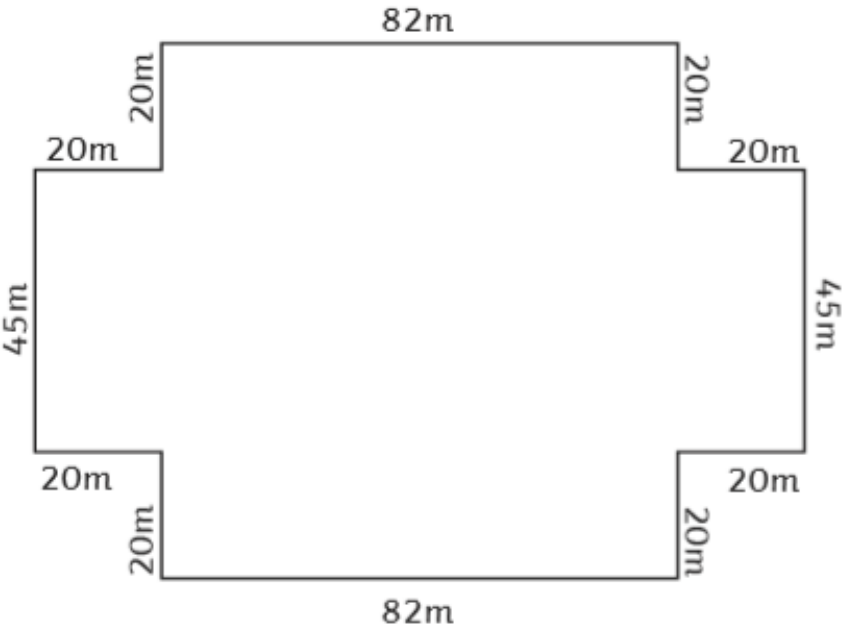


[5]

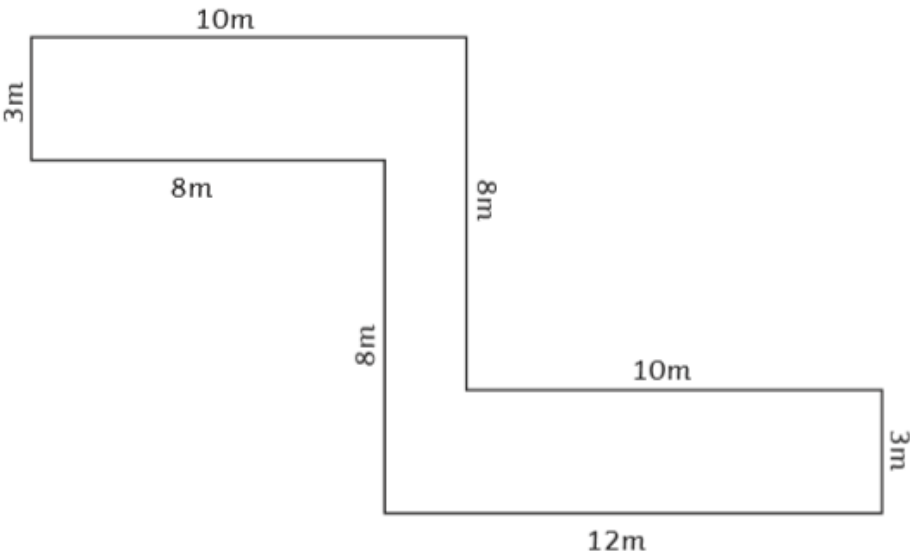
Lesson 3: Perimeter and Area Problems

Use your knowledge that you have learnt over the last two lessons to answer the following problem-solving questions.

Jamie ran around the perimeter of the local park. He used his smartphone to draw a map and measure the distance as he ran. From the map, work out the total distance he ran all the way around the perimeter of the park.



Farmer Green wants to put a fence up for his ferret enclosure. What is the length of chicken wire he needs to go around the whole perimeter of the enclosure?



1.	 Area = <input type="text"/>	2.	 Area = <input type="text"/>
3.	 Area = <input type="text"/>	4.	 Area = <input type="text"/>
5.	 Area = <input type="text"/>		

1. What is the area of chocolate box number 4?

2. Which chocolate box has the largest area?

3. Which chocolate box has the smallest area?

4. What is the difference in area between chocolate box number 1 and 2?

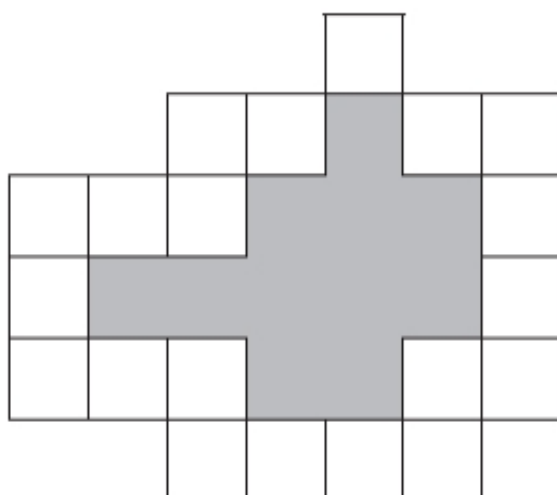
5. What is the difference in area between chocolate box number 3 and 5?

6. What is total area of all the chocolate boxes together?

7. Which box of chocolates would you want to eat and why?

Challenge/Extension: Test style questions on Perimeter and Area

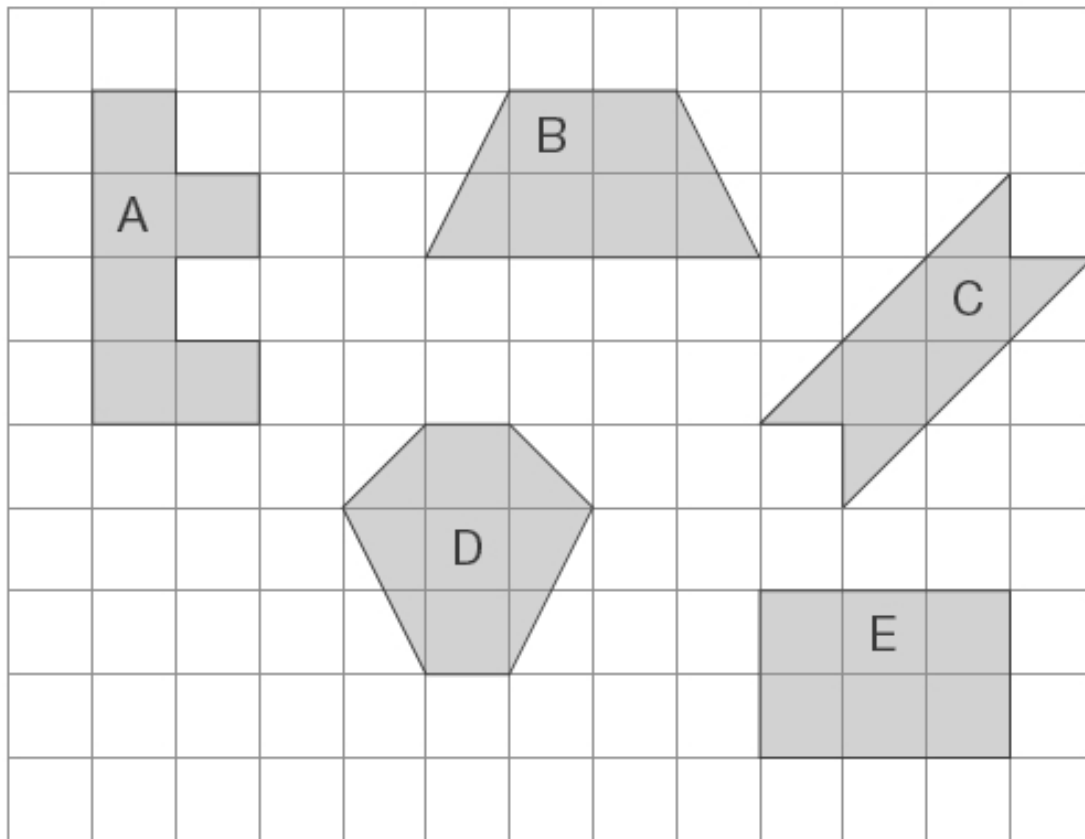
Here is a set of 20 squares around a shaded space.



What is the area of the shaded space?

squares

Here are some shapes on a 1cm square grid.



What is the **perimeter** of shape A?

Challenge/Extension 2: Using a tape measure, can you find the area or perimeter of an area in your home. Ask an adult to help you if needed.