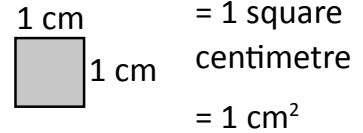
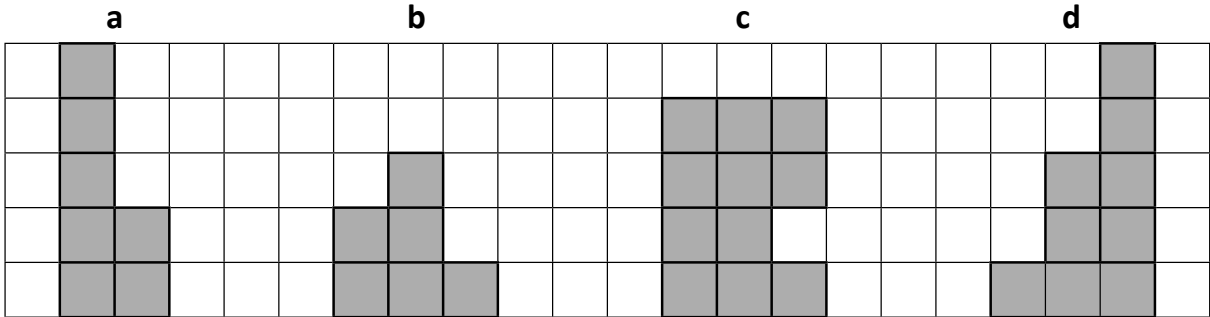


Area – square centimetres

Area is the amount of space a shape covers. It is a 2D measurement. We measure area in square units. For small areas, we use square centimetres.



- 1 Each square covers an area of 1 square centimetre (1 cm²). Record the area of each shape:



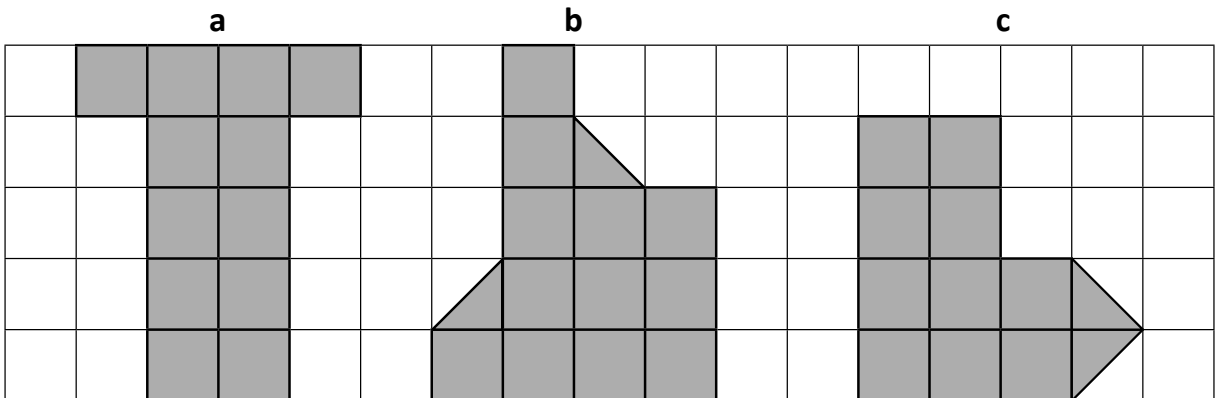
Area = ____ cm²

Area = ____ cm²

Area = ____ cm²

Area = ____ cm²

- 2 Find the area of these irregular shapes. Use the 1 cm grid paper as your guide:



Area = ____ cm²

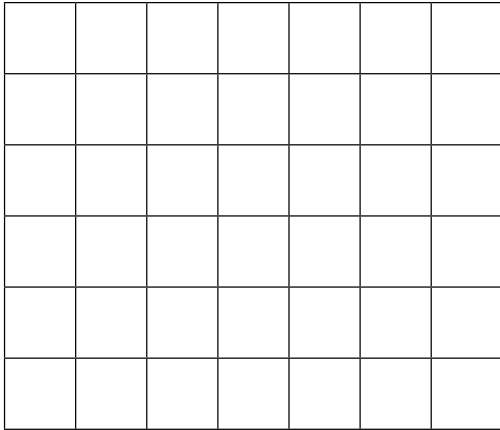
Area = ____ cm²

Area = ____ cm²

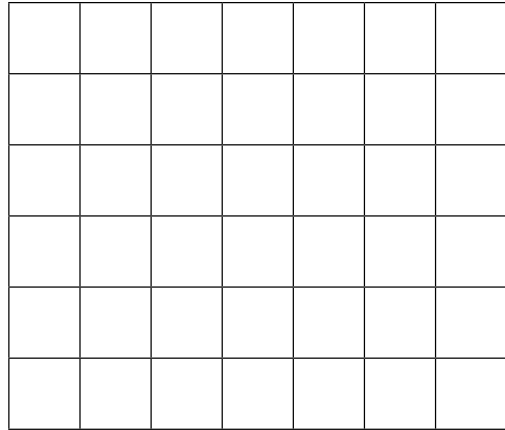
Area – square centimetres

3 Use the 1 square centimetre grid paper to shade some irregular shapes with the following areas:

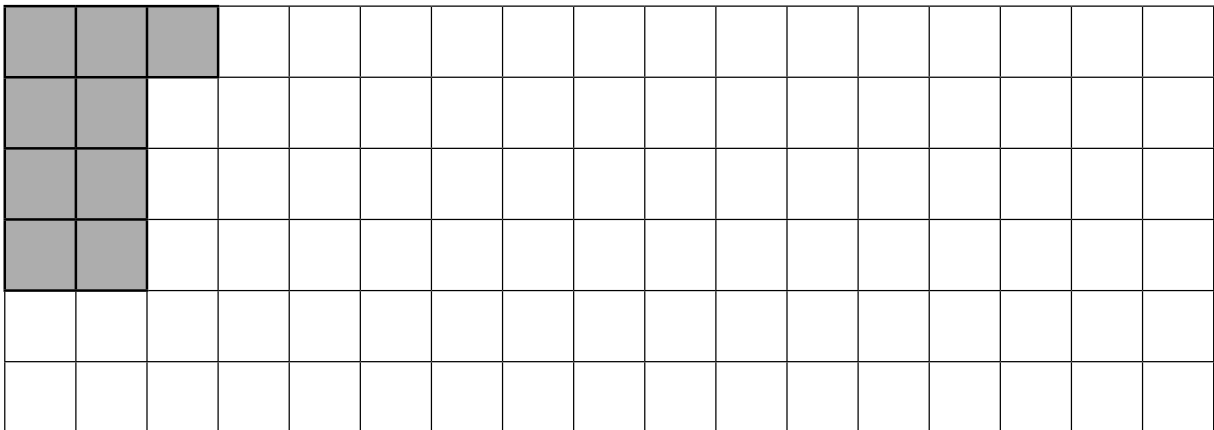
a 4 square centimetres



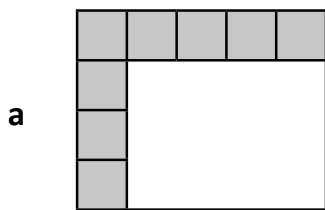
b 6 square centimetres



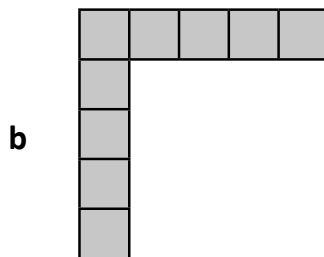
4 How many shapes can you make with an area of 9 square centimetres? Show them on the grid below. The first one has been done for you.



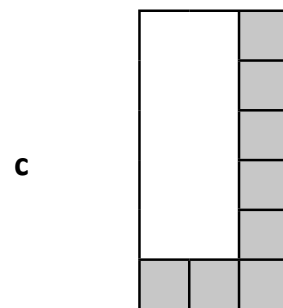
5 What is the area of each rectangle? Each square in the grid has an area of 1 cm².



Area = _____



Area = _____



Area = _____

Area – square metres

When we need to find the areas of large spaces, we use square metres.
The symbol for square metres is m^2 .

1



In groups, stick pieces of newspaper together to make a square that is 1 metre long and 1 metre wide.

a How many people can fit standing inside one square metre?



b Cut your square into five pieces and then stick it back together. It can be any shape. Draw it here:

Is this still one square metre?

2

Use your square metre to measure five areas in your school. Estimate first.

Space to be measured	Estimate	Actual area
a		
b		
c		
d		
e		

Area – square metres

3 Rewrite these measurements the short way. The first one has been done for you.

a Twenty nine square metres =

b Thirty seven square metres =

c Three hundred two square metres =

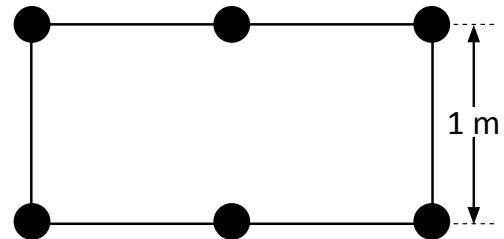
d Six hundred ninety one square metres =

e Eighty point seven square metres =

f Seven point two square metres =

4 Miss Farbio has a rectangular garden with six fence posts. The distance between each post is 1 metre and the area of her garden is 2 m².

Her neighbour Mr Gubbio has 14 fence posts, also 1 metre apart. What is the area of his garden in square metres if one side of the fence has three posts, just like Miss Farbio's garden?



Area of Mr Gubbio's garden = _____

Area – investigating area and perimeter

1 What is the area and perimeter of these shapes?

a

P = _____
A = _____

b

P = _____
A = _____

c

P = _____
A = _____

d

P = _____
A = _____

1 cm

1 cm

2 Use the grid below to draw two shapes with a perimeter of 12 cm but with different areas:

1 cm

1 cm

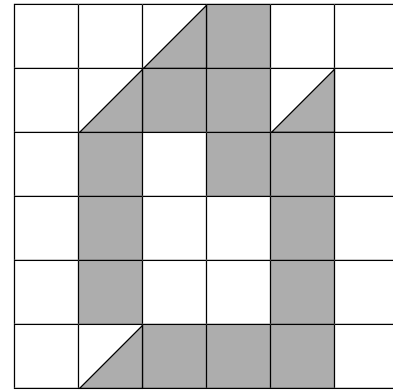
3 Colour a square with a side length of 4 cm. Label its area and perimeter. Now colour a square with a side length of 5 cm and label its area and perimeter.

What do you notice? _____

Area – investigating area and perimeter

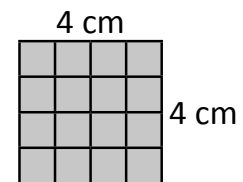
- 4 Look at this 1 cm square grid. Some of the grid is shaded. Work out the area of the part that is shaded.

The area of the part that is shaded is cm²

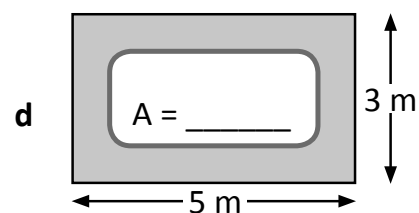
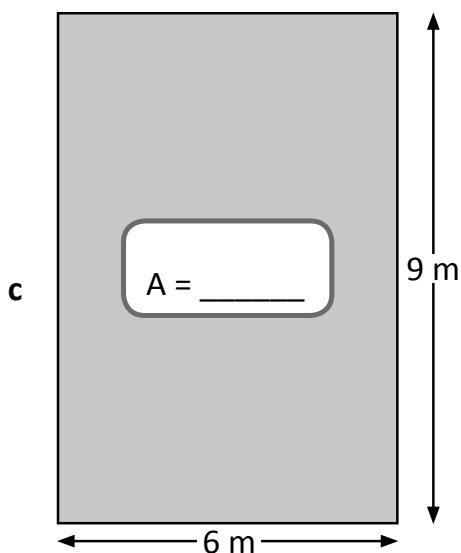
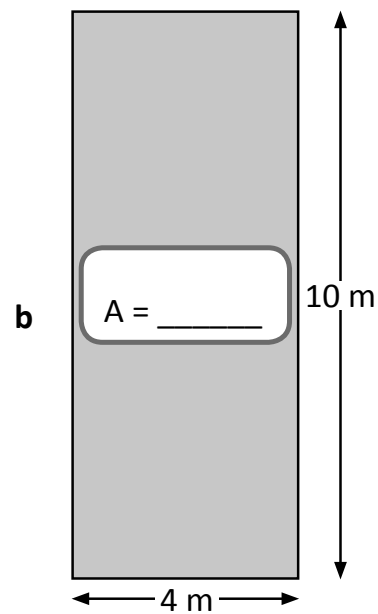
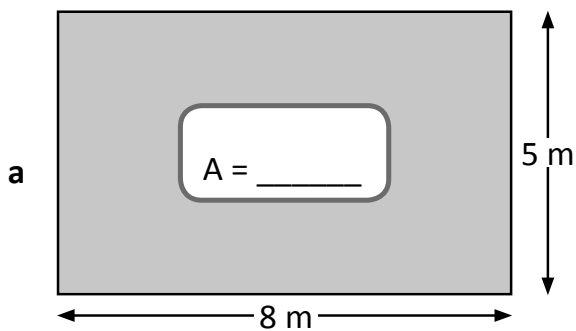


A faster way to calculate area is to multiply the length by the width.

Look at this square. If we multiply the length by the width, we get 16 cm². This is the same as counting all the squares.



- 5 Calculate the area of each of these shapes by multiplying the length by the width:

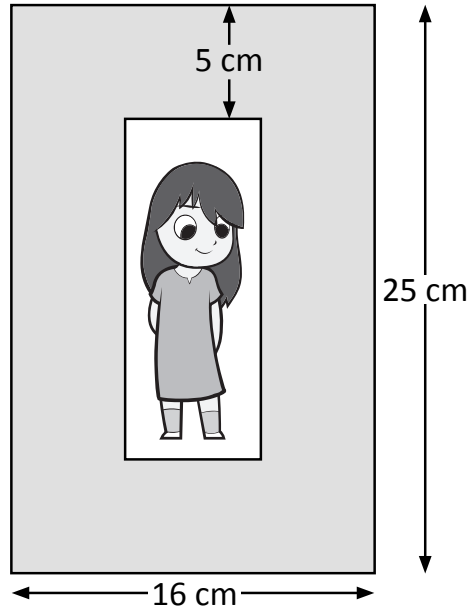




What to do

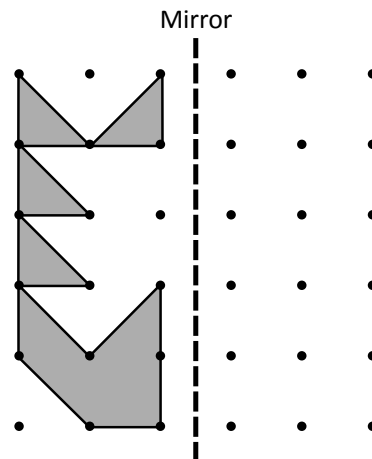
Solve these area challenges based on the dimensions:

- a A framed photograph is 16 cm × 25 cm. The frame itself is 5 cm wide. Use these clues to find the area of the photograph inside the frame.



The area of the photograph is _____ cm².

- b Using a ruler, copy this shape so it reflects on the right of the mirror line. Then work out the total area of this shape.

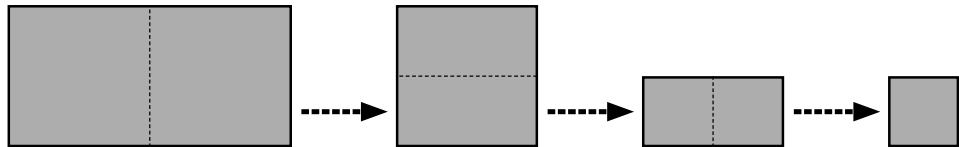


The total area of this shape is _____ cm².



Solve these area challenges based on the dimensions:

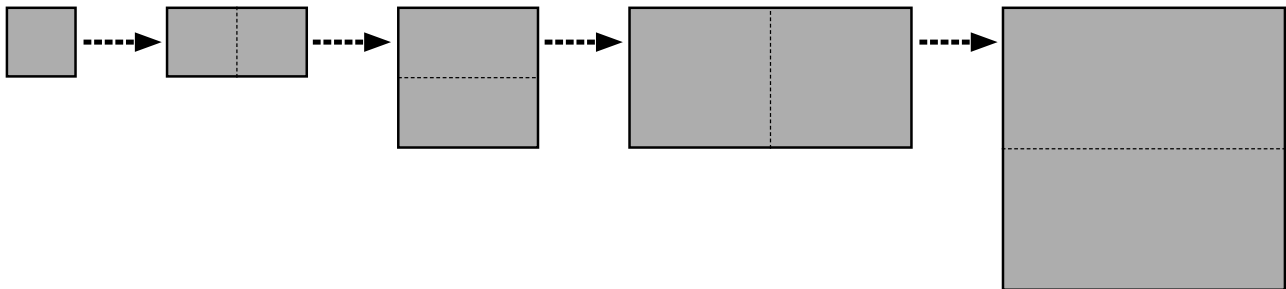
- a Max folded a rectangular piece of paper in half three times to make a square. If one side of the final square was 2 cm, what was the area of the piece of paper he started with?



The area of the piece of paper he started with was _____ cm^2 .

.....

- b Amber received a drawing from her cousin Cameron. The drawing was on a square piece of paper folded in half four times. If the area of the folded drawing was 4 cm^2 , what was the area of the original piece of paper that Cameron drew on?



The area of the original piece of paper that Cameron drew on was _____ cm^2 .