



Perimeter of rectangles

Measure and calculate the perimeter of rectangles using the rule $P = 2(a + b)$

challenge 1

Copy each diagram on to 1 cm squared paper then:

- measure its length and breadth
- calculate its perimeter using the rule
perimeter = twice (length plus breadth)

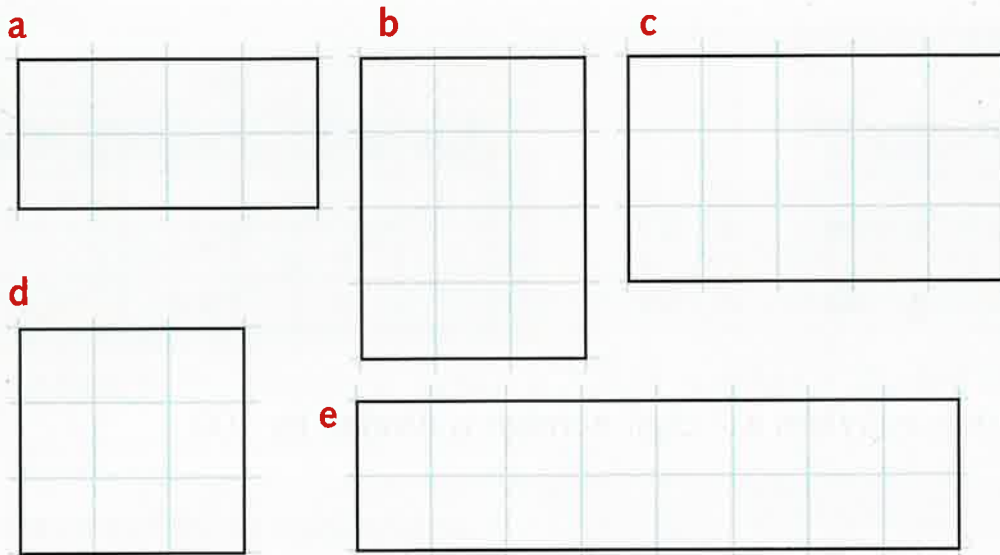
You will need:

- ruler
- 1 cm squared paper

Example

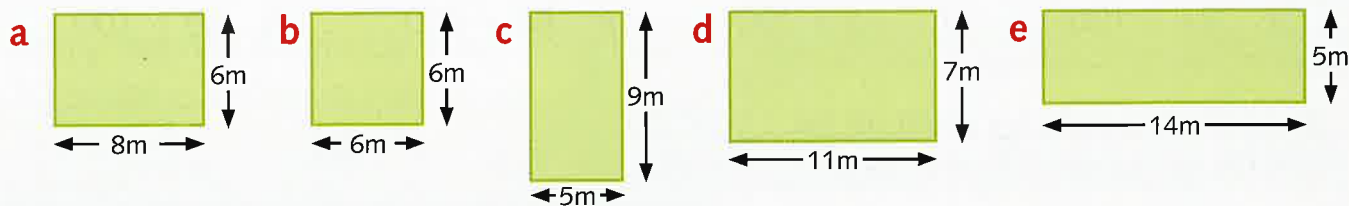


$$\begin{aligned}
 P &= 2 \times (5 + 2) \text{ cm} \\
 &= 2 \times 7 \text{ cm} \\
 &= 14 \text{ cm}
 \end{aligned}$$



challenge 2

Use the rule from Challenge 1 to find the perimeter of these rectangular fields.



challenge 3

Copy and complete these rectangles on 1 cm squared paper so they have the perimeters given.

- a $P = 24 \text{ cm}$ b $P = 18 \text{ cm}$ c $P = 20 \text{ cm}$



Counting squares for area

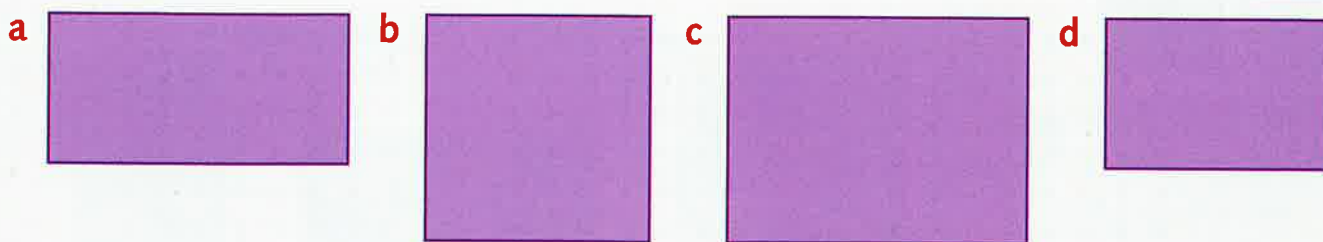


Find the area of rectangles by counting squares

challenge 1

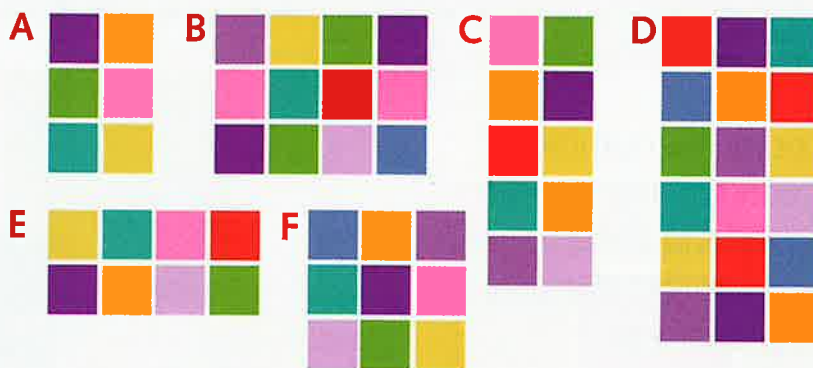
Write the number of centicubes you need to cover each rectangle.

You will need:
• centicubes



challenge 2

1 Find the area of each rectangle by counting the number of squares.



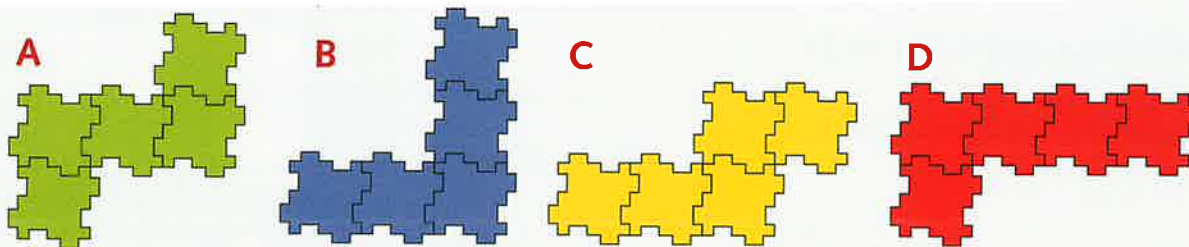
2 Which rectangle has:

- a the smallest area?
- b the greatest area?
- c half the area of rectangle D?
- d an area 2 squares less than rectangle E?

challenge 3

- 1 Use interlocking squares to make the four shapes below.
- 2 Fit the shapes together to make a rectangle 5 units by 4 units.
- 3 Copy the rectangle on to 1 cm squared paper.
- 4 Use coloured pencils to show how the four shapes fit together.
- 5 Record the area and perimeter of your rectangle.

You will need:
• interlocking squares
• 1 cm squared paper
• coloured pencils



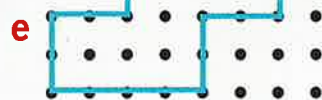
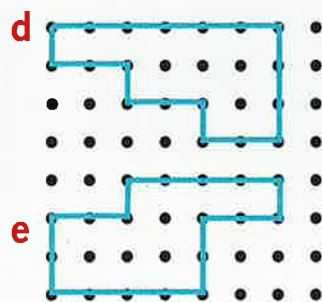
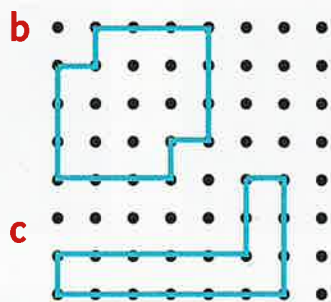
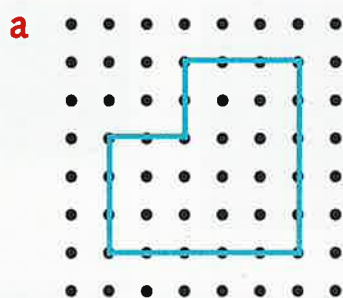


Finding area

Find the area of rectangles and other shapes by counting squares

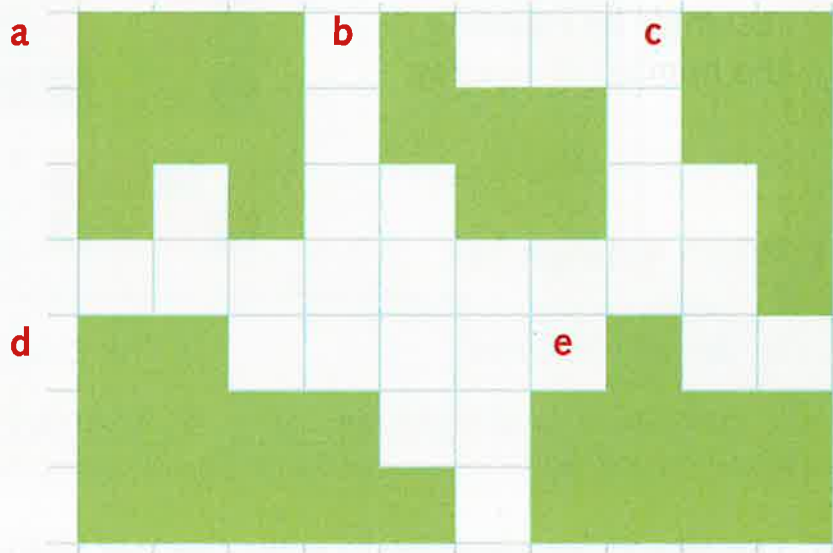
Challenge 1

Find the area of each shape on the pinboard by counting the number of squares.



Challenge 2

Count the number of green squares in each shape and write its area. Don't forget the unit in your answers.



Challenge 3

Draw these rectangles on 1 cm squared paper. Below each one, write its area.

- a** 6 cm long and 2 cm wide
- b** 7 cm long and 4 cm wide
- c** 9 cm long and 5 cm wide

You will need:

- 1 cm squared paper
- ruler

Example

Area = 15 square cm

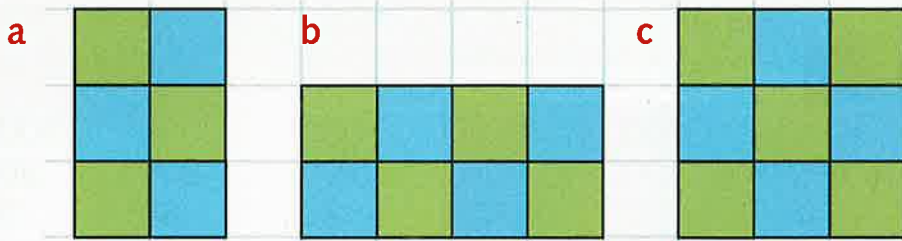


Calculating area

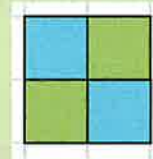
Use multiplication to calculate the area of rectangles

Challenge 1

Each small square is 1 square cm.
Calculate the area of these rectangles.



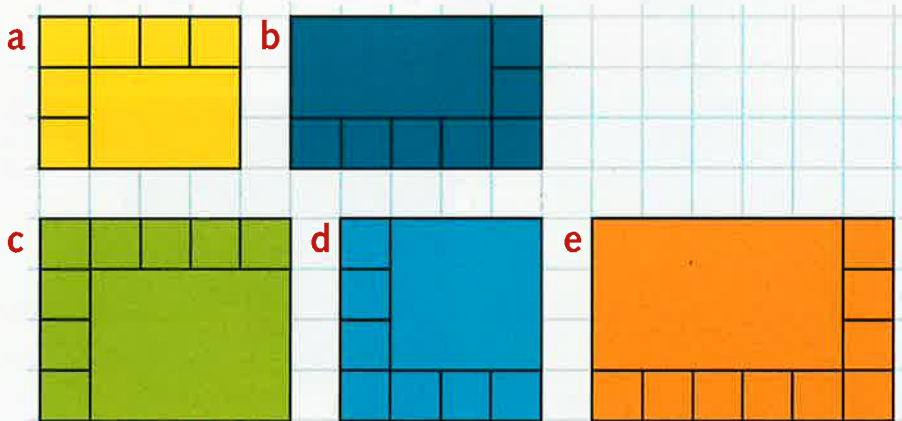
Example



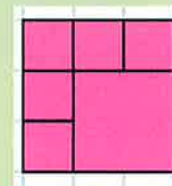
2 rows of 2 squares
Area = 2×2 square cm
= 4 square cm

Challenge 2

Each small square is 1 square cm.
Calculate the area of these rectangles.



Example



3 rows of 3 squares
Area = 3×3 square cm
= 9 square cm

Challenge 3

Draw squares A to D on 1cm square dot paper.

- Find the area of each square.
- Draw the next two squares in the pattern. Label them E and F.
- Find the area of squares E and F.
- Predict the areas of squares G and H.
- Check your predictions by drawing the squares.

You will need:

- 1 cm square dot paper
- ruler

