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This tells you which page you need.



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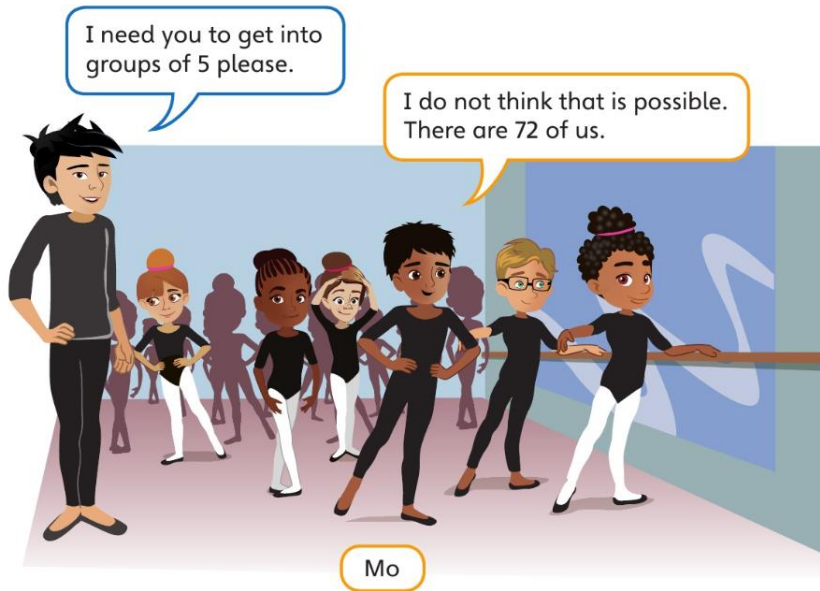
The first page of a lesson is a maths problem. Don't look at the next page until you have had a go! The third and fourth pages give you practice, so you can check your understanding.



Lesson 1

Solving problems – division

Discover



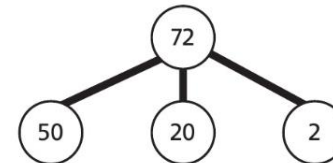
- 1** a) How does Mo know that they cannot get into groups of 5? How many children would be left over?
- b) What group sizes could the children stand in without any being left over?

Share

A number that divides equally by 5 must end in a 0 or 5.

- a) There are 72 children.

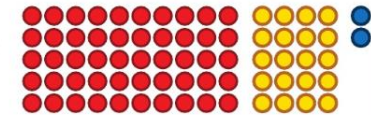
Mo knows that 72 cannot be shared equally into 5 groups because 72 is not in the 5 times-table.



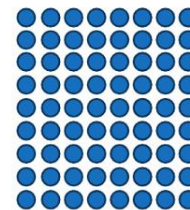
$$50 \div 5 = 10 \quad 20 \div 5 = 4$$

$$\text{So, } 72 \div 5 = 14 \text{ r } 2$$

2 children would be left over.



- b)
-
- $72 \div 2 = 36$ $72 \div 3 = 24$ $72 \div 4 = 18$ $72 \div 6 = 12$



I made an array to show that 72 could be put into groups of 8 columns or 9 rows. This is because $9 \times 8 = 72$.

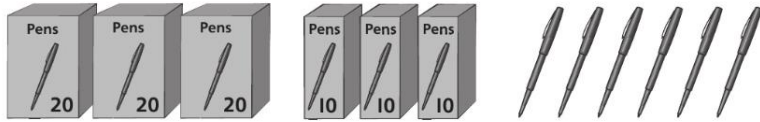
The children could stand in groups of 2, 3, 4, 6, 8, 9 and 12 without any being left over.



Lesson 1

Solving problems – division

- 1 These pens are shared between 2 classes.
How many pens does each class get?



Each class gets pens.

- 2 Mo, Kate and Toshi share this money.



How much money do they each get?

$$\boxed{} \div 3 = \boxed{}$$

They each get £ .

- 3 44 children sing in a choir.
5 children can fit on one bench.
How many benches are needed?



benches are needed.

- 4 Is this sentence true or false? Circle your answer.

The remainder when 77 is divided by 2 is the same as the remainder when 49 is divided by 4.

The sentence is true / false.

- 5 Find three division questions with the answer 8 remainder 3.

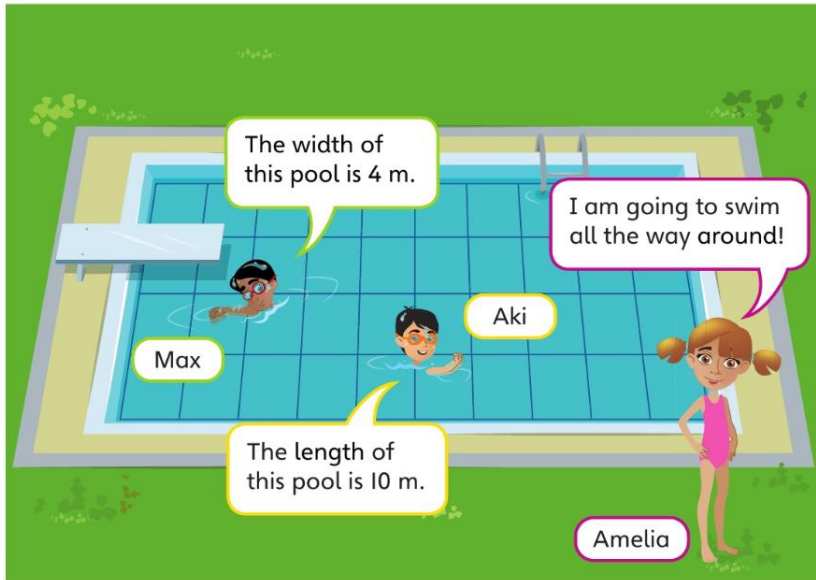
$$\boxed{} \div \boxed{} = 8 \text{ r } 3$$

$$\boxed{} \div \boxed{} = 8 \text{ r } 3$$

$$\boxed{} \div \boxed{} = 8 \text{ r } 3$$

Perimeter of a rectangle

Discover

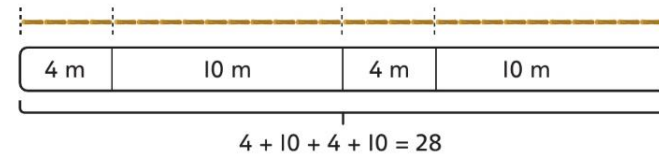
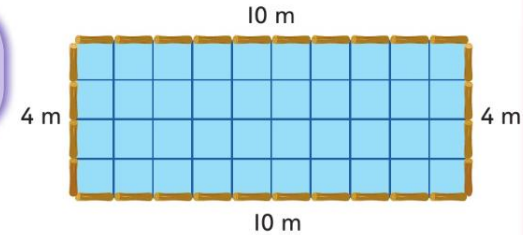


- 1** a) How far will Amelia swim?
 b) Another pool is a square shape with a side length of 4 m. What is the distance around this pool?

Share

a) The distance around the outside of a shape is called its **perimeter**.

I used sticks to show the swimming pool. Each stick represents 1 metre.



The perimeter of the swimming pool is 28 m.
 Amelia will swim 28 m.



I can work out the perimeter a different way. I added two lots of the length and then two lots of the width.

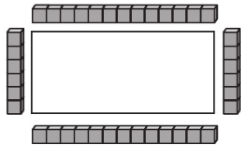
$$\begin{aligned} \text{Length} &= 10 \text{ m} & \text{Width} &= 4 \text{ m} \\ \text{Double } 10 \text{ m} &= 20 \text{ m} \\ \text{Double } 4 \text{ m} &= 8 \text{ m} \\ 20 \text{ m} + 8 \text{ m} &= 28 \text{ m} \end{aligned}$$



Lesson 2

Perimeter of a rectangle

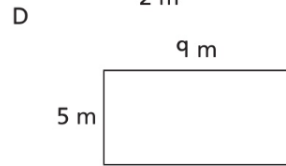
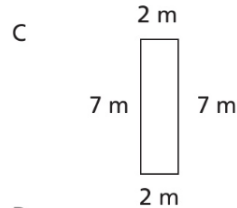
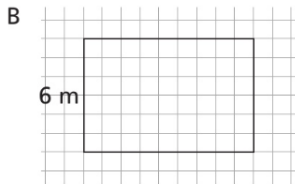
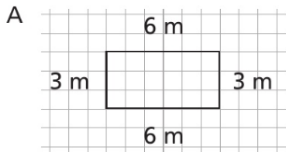
- 1 Liam draws a rectangle. He uses cubes to measure the length of each side. Each cube is 1 cm long.



What is the perimeter of the rectangle?

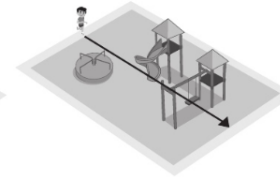
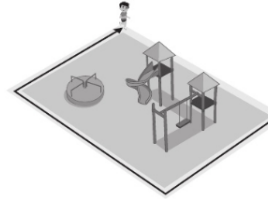
$$\square + \square + \square + \square = \square \text{ cm}$$

- 2 Find the perimeters of these rectangles.



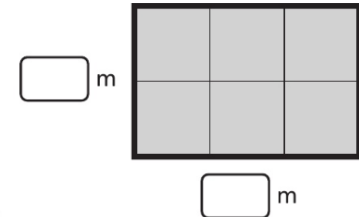
Rectangle	Perimeter
A	<input type="text"/> m
B	<input type="text"/> m
C	<input type="text"/> m
D	<input type="text"/> m

- 3 Tick all children who are showing perimeter.



- 4 Each square has a length of 5 m.

- a) Label the length and the width of this swimming pool.



- b) What is its perimeter? m

- 5 The school field is 50 m long and 23 m wide.

Jack runs the length of the field 3 times.

Sam runs around the perimeter once (1 time).

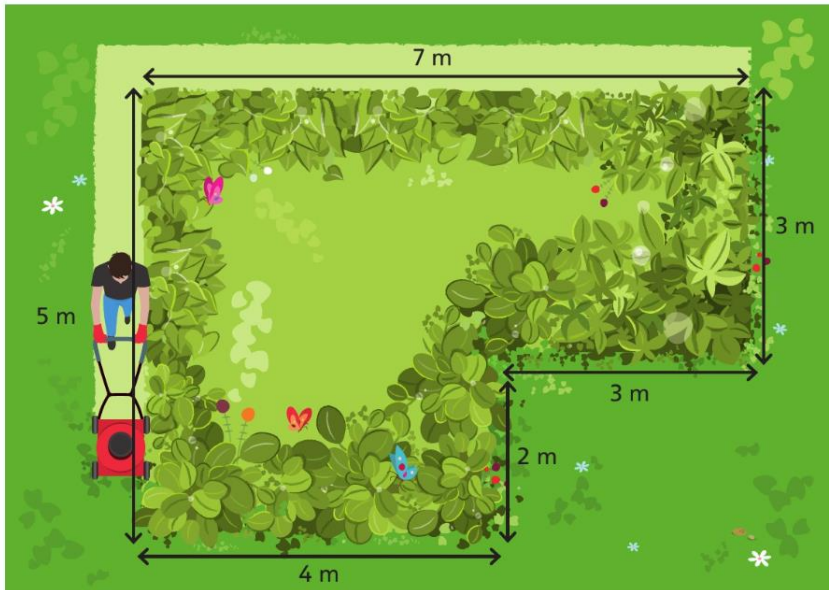
Who has run further?

_____ has run further.

Explain your answer.

Perimeter of rectilinear shapes

Discover



- a) What is the perimeter of the flower bed?
- b) Draw a diagram for the shape of the flower bed on squared paper.

Share

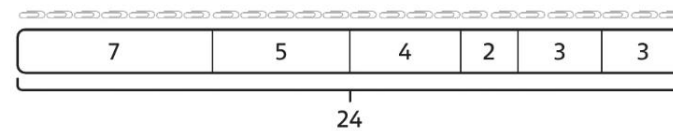
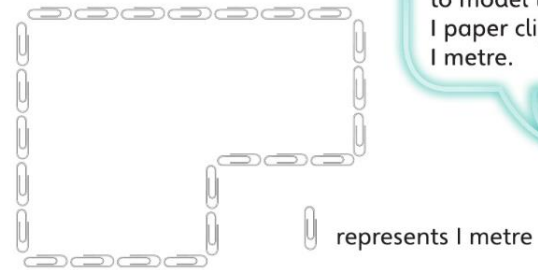
- a) The flower bed is a **rectilinear shape**.

A rectilinear shape has straight sides that meet at right angles.



You can find the perimeter of rectilinear shapes by adding the lengths of all the sides.

I am using paper clips to model the problem. 1 paper clip represents 1 metre.



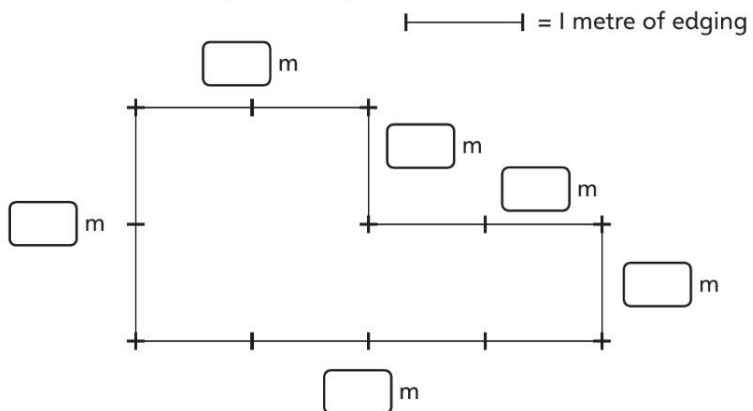
$$7 + 5 + 4 + 2 + 3 + 3 = 24$$

The perimeter of the flower bed is 24 m.

Lesson 3

Perimeter of rectilinear shapes

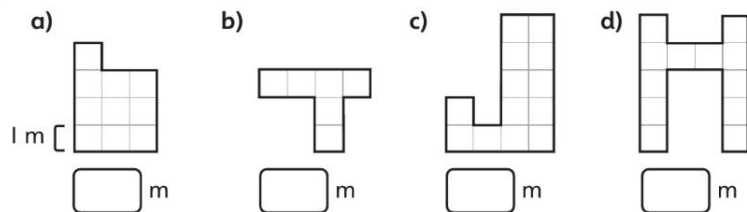
- 1 A gardener uses wooden edging around a flower bed.
Each piece of edging is 1 m long.



- a) Complete the measurements of each side.
b) Work out the perimeter of the flower bed.

The perimeter of the flower bed is m.

- 2 Label each shape with its perimeter.



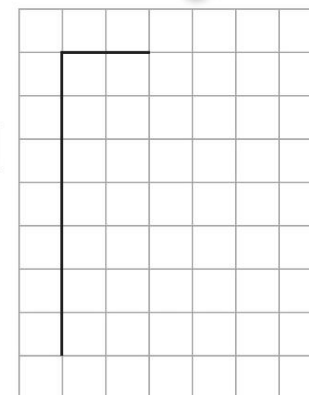
- 3 Lottie is designing a badge in the shape of the letter L.

The lengths of its sides are: 7 cm, 2 cm, 4 cm, 3 cm, 3 cm and 5 cm.

- a) The perimeter of the badge is

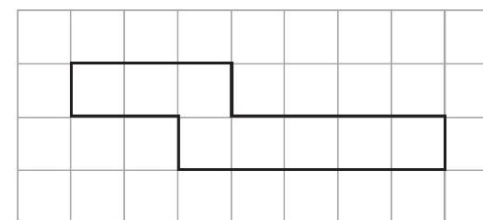
cm. 1 cm

- b) Use the measurements to draw the badge. The first two lines are done for you.



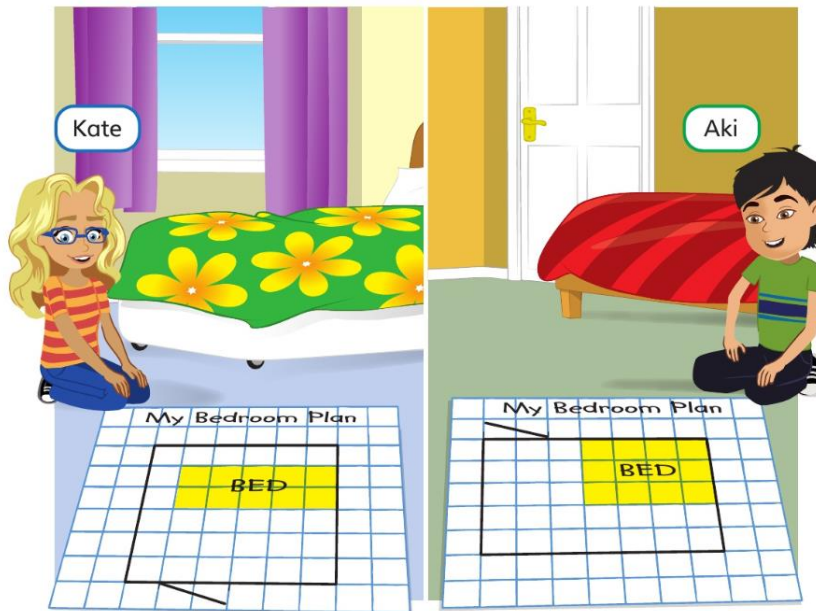
- 4 The sides of this rectilinear shape, in order, are 3 m, 1 m, 4 m, 1 m, 5 m, 1 m, 2 m, 1 m.

Label the diagram and find the perimeter.



Counting squares

Discover



- 1** a) Who has the larger bed?
 b) How much empty space do they both have in their bedroom?

Share

- a) We can use squared paper to help find the area of different shapes.



I numbered each square to make sure I did not miss any.

1	2	3	4	5
6	7	8	9	10

Kate's bed has 2 rows of 5 squares.

1	2	3	4
5	6	7	8
9	10	11	12

Aki's bed has 3 rows of 4 squares.

12 squares is a larger area than 10 squares, so Aki's bed is larger.

I have thought of a way to use times-table facts to help.

1	2	3	4	5

$$2 \times 5 = 10$$

1	2	3	4

$$3 \times 4 = 12$$



- b) Count the squares to find the area of the empty space.

1	2	3	4	5	6
7					
8					
9	10	11	12	13	14
15	16	17	18	19	20
21	22	23	24	25	26

1	2	3			
4	5	6			
7	8	9			
10	11	12	13	14	15
16	17	18	19	20	21
22	23	24	25	26	27

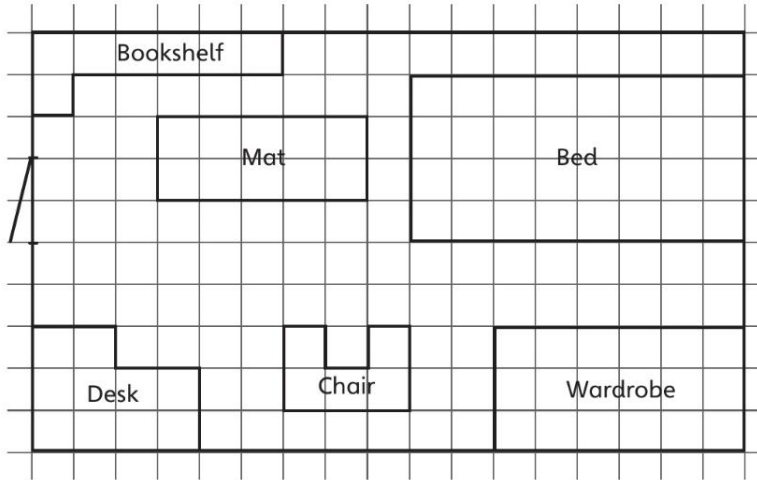
Kate has 26 squares of empty space in her bedroom.

Aki has 23 squares of empty space in his bedroom.

Lesson 4

Counting squares

1 Here is a plan of a child's bedroom.

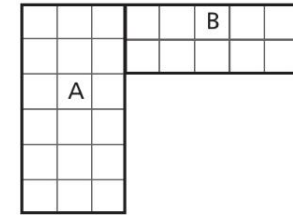


a) Complete the table to show the area of each object on the plan.

b) Draw your own object on the plan and in the last line of the table write down its area.

Object	Area (squares)
Desk	
Chair	
Wardrobe	
Mat	
Bookshelf	
Bed	

2 Look at the shapes and complete the statements.



Rectangle A has an area of squares.

Rectangle B has an area of squares.

Area of A + B = squares + squares = squares

The whole shape has an area of squares.

3 A shape is made up of two rectangles joined together.

The first rectangle has twice the area of the second.

What could the total area be?

Draw your shape then work out its area.



Total area = squares + squares = squares