Y5 Perimeter Composite Shapes

KS2 Y5 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

A rectangle is 9 cm long and 4 cm wide. Find its perimeter.

Step 1 · Add all four sides

$9 + 4 + 9 + 4$

Step 2 · Or double the length plus width

$2 \times (9 + 4) = 2 \times 13$

Answer: 26 cm

Check: Both methods give 26 cm ✓

2. Now try one with the steps

A 6 m by 4 m rectangular room has a 2 m by 2 m corner cut out. Find the perimeter of the L-shaped room.

Step 1 · List the six sides

Step 2 · Add them

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. Find the perimeter of a square with sides of 7 cm.

2. Find the perimeter of a rectangle 12 cm by 5 cm.

3. A rectangle has a perimeter of 30 cm. Its length is 9 cm. What is its width?

4. An L-shape has sides 8 cm, 3 cm, 5 cm, 4 cm, 3 cm and 7 cm. What is its perimeter?

5. An L-shape is 9 cm wide and 6 cm tall overall. Find its perimeter.

6. An L-shape is 12 m wide and 8 m tall. The narrow top part is 5 m wide. What is the length of the missing horizontal side?

7. A regular hexagon has sides of 6 cm. What is its perimeter?

8. A garden is a rectangle 15 m by 8 m. How much fencing goes all the way round?

9. An L-shape has outer sides 14 cm and 10 cm, with a 6 cm by 4 cm corner removed. What is its perimeter?

10. A 12 cm by 6 cm rectangle has a 4 cm wide, 2 cm deep notch cut from the middle of one long side. Find the perimeter.

11. Two 5 cm by 3 cm rectangles are joined along their 3 cm sides to make a longer rectangle. What is the perimeter of the new shape?

12. A square has a perimeter of 48 m. How long is each side?

13. A T-shape: the top bar is 9 cm wide and 2 cm tall; the stem below it is 3 cm wide and 5 cm tall. What is the perimeter?

14. A rectangle has a perimeter of 24 cm. Its length and width are whole numbers. Write all the possible pairs of length and width.

4. Before you hand it in

Adding only the lengths that are labelled on an L-shape.

Count the sides first (an L-shape has 6). Work out any missing lengths from the opposite sides before adding.

Thinking cutting a corner out of a rectangle makes the perimeter smaller.

The cut edges move inwards but have the same total length, so the perimeter stays the same. Only the area gets smaller.

Finding a missing side by adding instead of subtracting.

The long side equals the two short sides opposite it added together. Missing side = long side − known short side.