

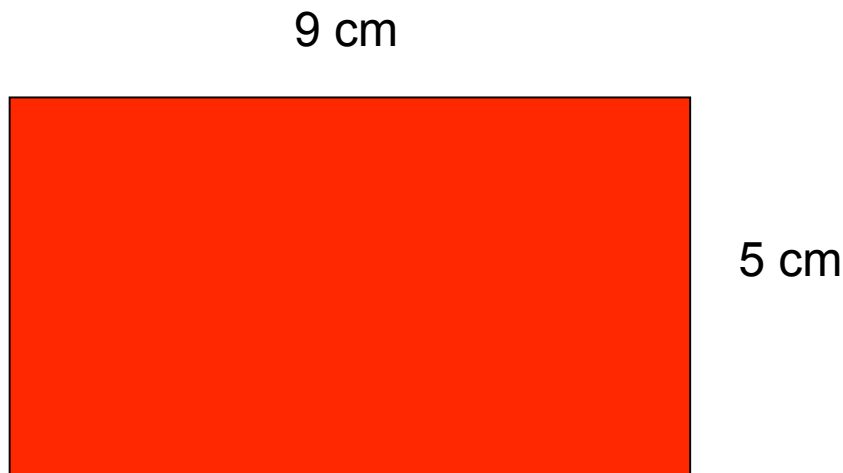


The perimeter of rectangles

The perimeter of shape is the **distance around the outside**. If you need to fit a picture rail in a room or put a border around a cushion, you need to find the perimeter.

Perimeter is measured in **units of length**. This means the perimeter of shapes will be in units such as **centimetres, metres** or **inches**.

To find the perimeter you add the measurements of **all** the sides.



Notice in the rectangle above you're only given the measurements of two of the sides. However, as the shape is a rectangle, the opposite sides are **equal**.

Finding the perimeter of a rectangle: method 1

You can find the perimeter by adding up the measurements as you go around the outside:

$$\text{Perimeter} = 9 \text{ cm} + 5 \text{ cm} + 9 \text{ cm} + 5 \text{ cm} = \mathbf{28 \text{ cm}}$$

Finding the perimeter of a rectangle: method 2

Since the opposite sides are equal, you can double the two sides and add the total:

$$\begin{aligned} \text{Perimeter} &= 2 \times 9 \text{ cm} = 18 \text{ cm} \\ &2 \times 5 \text{ cm} = 10 \text{ cm} \\ &18 \text{ cm} + 10 \text{ cm} = \mathbf{28 \text{ cm}} \end{aligned}$$

Finding the perimeter of a rectangle: method 3

You can also add the length and width together first and then double the answer:

$$\begin{aligned} \text{Perimeter} &= 2 \times (9 + 5) \\ &2 \times 14 = \mathbf{28 \text{ cm}} \end{aligned}$$