

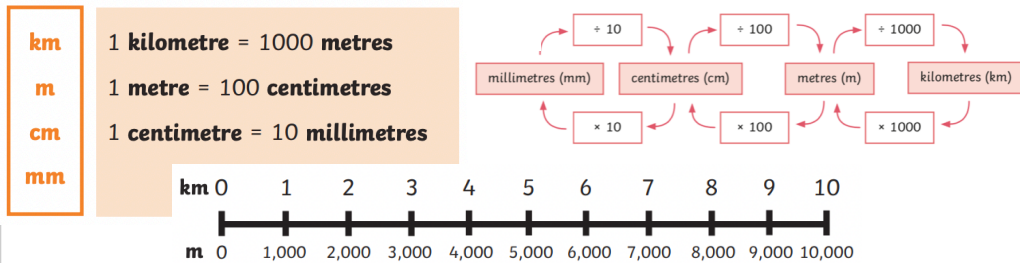


# Year 4 - Length and Perimeter

## Key vocabulary

|                    |                |
|--------------------|----------------|
| Perimeter          | Kilometre (km) |
| Length             | Metre (m)      |
| Measure            | Convert        |
| Rectilinear shapes | Polygons       |

## Kilometres (km) and Metres (m)

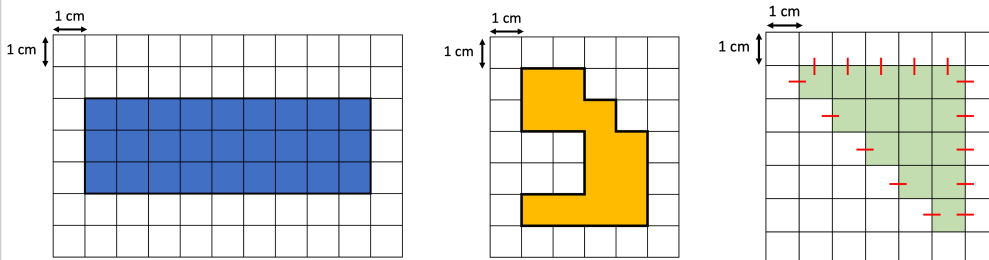


## Perimeter

Perimeter is the distance around a two-dimensional shape.  
When the shape is on a grid we can use the grid to help us find the perimeter.

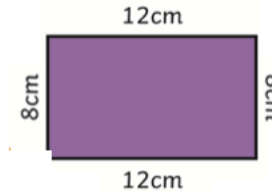
## Perimeter on a grid

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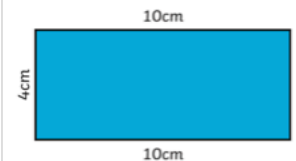


## Perimeter on a grid

To find the perimeter of any shape with straight sides, simply add together of all sides.



The perimeter of this rectangle is:  
 **$12\text{cm} + 12\text{cm} + 8\text{cm} + 8\text{cm} = 40\text{cm}$**



Rectangles and parallelograms have two pairs of equal parallel sides, so you could also work it out like this:

multiply 10cm by 2 and 4cm by 2 and add the totals together:

$$10 \times 2 = 20 \text{ and } 4 \times 2 = 8 \text{ so } 20 + 8 = 28\text{cm}$$

or

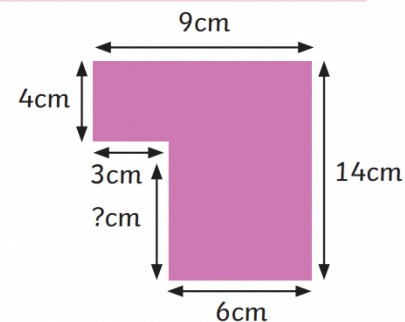
add 10cm and 4cm then multiply by 2:

$$10 + 4 = 14 \longrightarrow 14 \times 2 = 28\text{cm}$$

## Perimeter of a rectilinear shapes and polygons

A rectilinear shape has straight lines that meet at right angles

The missing side is 10cm because  $10 + 4 = 14$ .



$$\text{Perimeter} = 9 + 14 + 6 + 10 + 3 + 4 = 46\text{cm}.$$

A Regular polygon, all sides are equal in length and the angles are equal in size.

perimeter of regular polygons =  
number of sides  $\times$  length of one side

