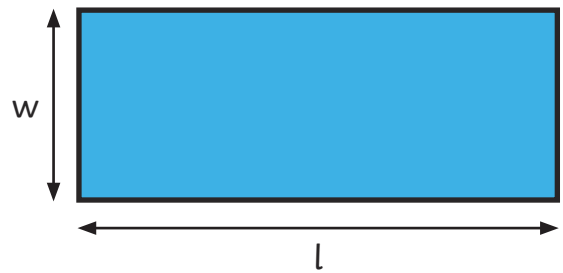
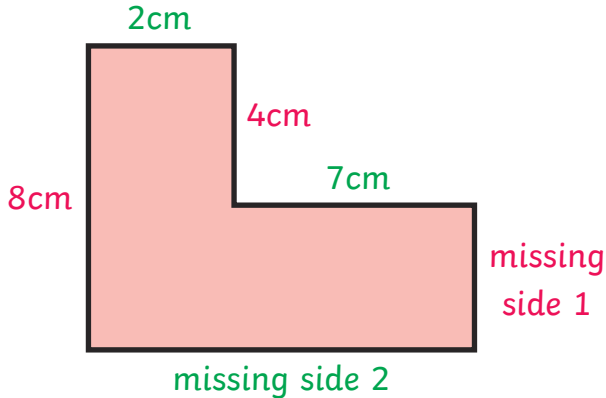
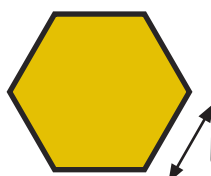


# Perimeter and Area

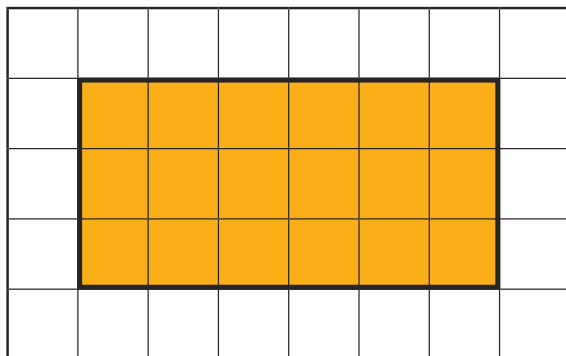
# Knowledge Organiser

| Key Vocabulary | Measure Perimeter                                                                                                                                                                                                                     | Calculate Perimeter                                                                                                                                                                                                                                                                                                                                               |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| metre          | <p>Measure the perimeter of a rectangle:</p>  <p>Measure the length (l) and width (w).<br/>Perimeter = l + w + l + w or (l + w) × 2</p>             | Calculate the missing sides of this rectilinear shape to find the perimeter:                                                                                                                                                                                                                                                                                      |
| kilometre      |                                                                                                                                                                                                                                       |  <p><i>* This shape is not drawn to the dimensions specified.</i></p> <p><b>Missing side 1 + 4cm = 8cm,<br/>so missing side 1 = 4cm.</b></p> <p><b>Missing side 2 = 2cm + 7cm = 9cm</b></p> <p>Perimeter = sum of all sides =<br/>2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm</p> |
| perimeter      |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
| length         |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
| width          |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
| rectangle      |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
| rectilinear    |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
| dimensions     |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
|                |                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                   |
|                | <p>Measure the perimeter of regular shapes:</p>  <p>Measure the length (l) and count the number of sides (s) on the shape.<br/>Perimeter = l × s</p> |                                                                                                                                                                                                                                                                                                                                                                   |
|                | <p>Measure the perimeter of irregular shapes:</p>  <p>Measure the length of each side and add them together.</p>                                  |                                                                                                                                                                                                                                                                                                                                                                   |

## Length and Perimeter

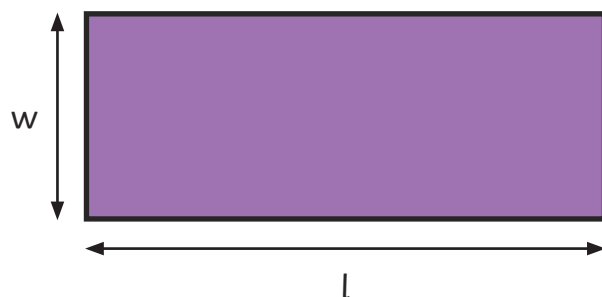
### Area of Rectangles

The area of a rectangle on a grid:



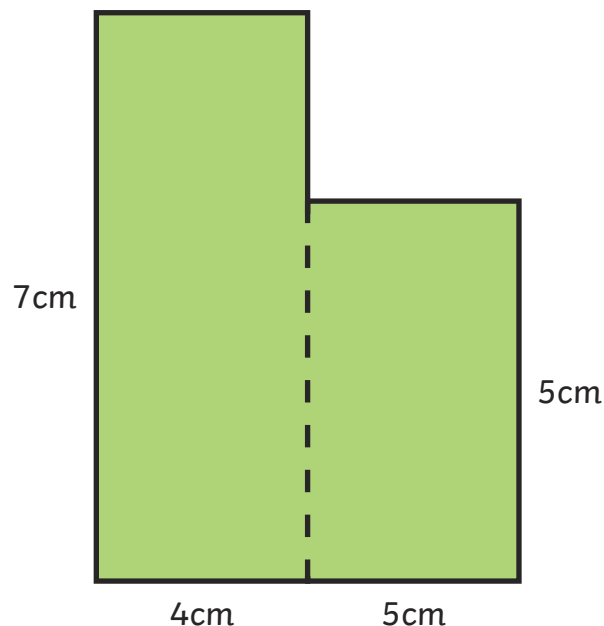
Multiply the length  $\times$  width  
 $= 6 \times 3 = 18$  squares.

The area of a rectangle = length (l)  $\times$  width (w).



### Area of Compound Shapes

To find the area of a compound shape, divide the shape into rectangles with known dimensions:

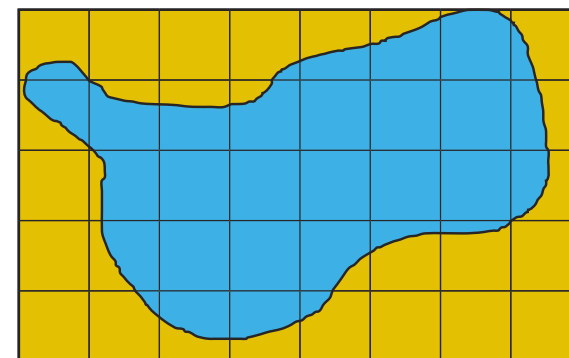


$$\begin{aligned}\text{Area} &= 7\text{cm} \times 4\text{cm} + 5\text{cm} \times 5\text{cm} \\ &= 28\text{cm}^2 + 25\text{cm}^2 \\ &= 53\text{cm}^2\end{aligned}$$

## Knowledge Organiser

### Area of Irregular Shapes

To find the area of an irregular shape, find the number of whole squares and part squares.



Whole squares = 10

Part squares = 22

Estimate of area = whole squares +  
 half part squares

$$= 10\text{cm}^2 + 11\text{cm}^2 = 21\text{cm}^2$$

\*There are other ways to estimate the area of irregular shapes.