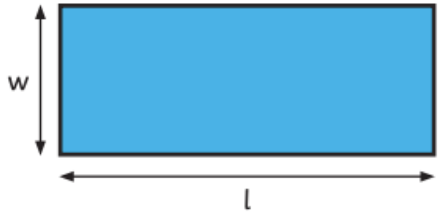
Templars Primary School – Knowledge Organiser

Year 5 Perimeter and Area

Key Vocabulary
metre
kilometre
perimeter
length
width
rectangle
rectilinear
dimensions
compound shape

Measure perimeter

Measure the perimeter of a rectangle:



Measure the length (l) and width (w).
Perimeter = l + w + l + w or (l + w) × 2

Measure the perimeter of regular shapes:

Measure the length (l) and count the number of sides (s) on the shape.

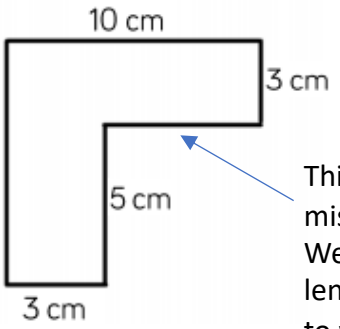
Perimeter = l × s

Measure the perimeter of irregular shapes:

Measure the length of each side and add them together.

Calculate perimeter

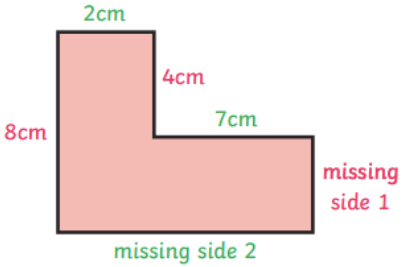
This side has a missing length.
We can look at the opposite side to find the length -
3cm + 5cm = 8cm



This side has a missing length.
We can use the lengths we do know to work it out.
10cm = 3cm = 7cm

Perimeter= 10cm + 8cm + 3cm + 5cm + 7cm + 3cm = 36cm

Calculate the missing sides of this rectilinear shape to find the perimeter:



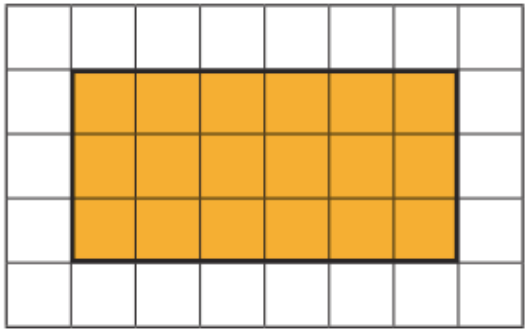
Missing side 1 + 4cm = 8cm
So missing side 1 = 4cm

Missing side 2 = 2cm + 7cm = 9cm

Perimeter = 2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm

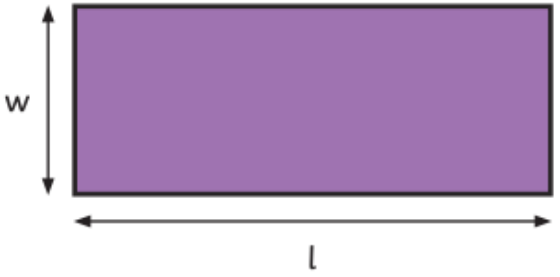
Area of rectangles

The area of a rectangle on a grid:



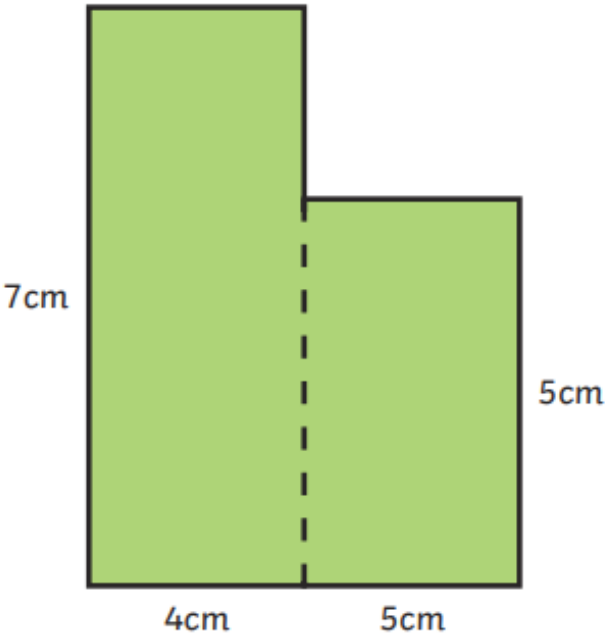
Multiply the length × width
= 6 × 3 = 18 squares.

The area of a rectangle = length (l) × width (w).



Area of compound shapes

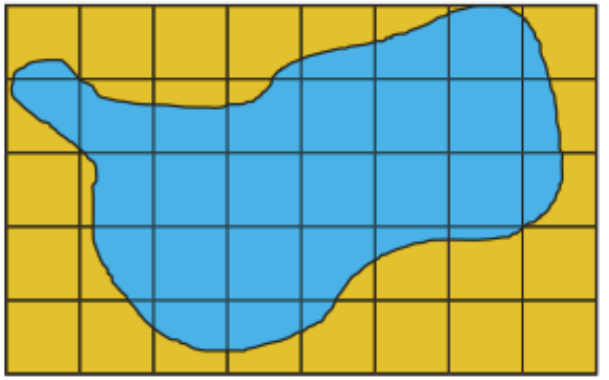
To find the area of a compound shape, divide the shape into rectangles with known dimensions:



Area = 7cm × 4cm + 5cm × 5cm
= 28cm² + 25cm²
= 53cm²

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

= 10cm² + 11cm² = 21cm²

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