Perimeter and Area

Knowledge Organiser

Key Vocabulary

metre

kilometre

perimeter

length

width

rectangle

rectilinear

dimensions

Measure Perimeter

Measure the perimeter of a rectangle:

w

l

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

Measure the perimeter of regular shapes:
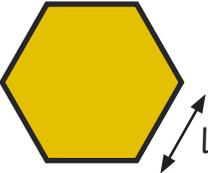
Measure the length (l) and count the number of sides (s) on the shape.

l

Perimeter = l × s

Measure the perimeter of irregular shapes:

Measure the length of each side and add them together.

Calculate Perimeter

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

2cm

4cm

7cm

8cm

missing side 1

missing side 2

This shape is not drawn to the dimensions specified.

Missing side 1 + 4cm = 8cm, so missing side 1 = 4cm.
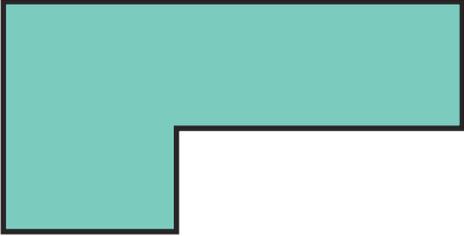
Missing side 2 = 2cm + 7cm = 9cm

Perimeter = sum of all sides =
2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm

Length and Perimeter

Area of Rectangles

The area of a rectangle on a grid:
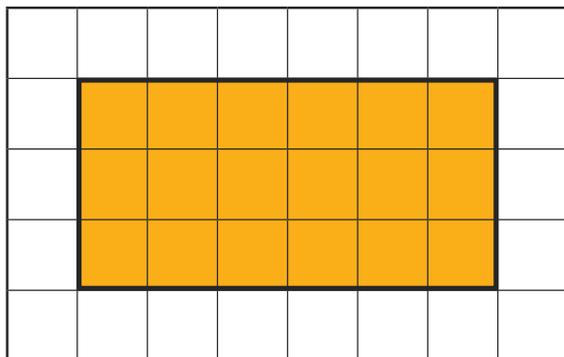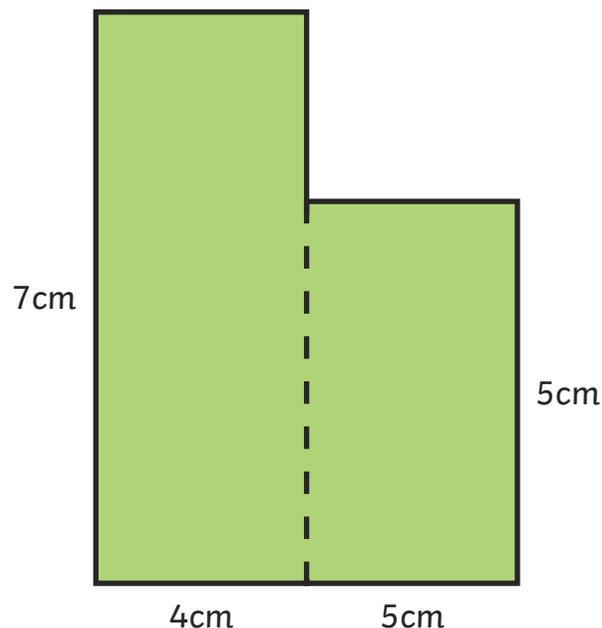
Multiply the length × width
= 6 × 3 = 18 squares.

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

w

l

Area of Compound Shapes

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

7cm

5cm

4cm   5cm

Area = 7cm × 4cm + 5cm × 5cm

= 28cm^2 + 25cm^2

= 53cm^2

Area of Irregular Shapes

To find the area of an irregular shape, find the number of whole squares and part squares.
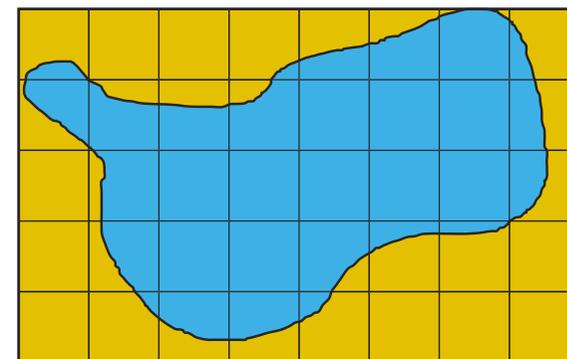
Whole squares = 10
Part squares = 22

Estimate of area = whole squares + half part squares

= 10cm^2 + 11cm^2 = 21cm^2

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