



Year 5 Area and Perimeter

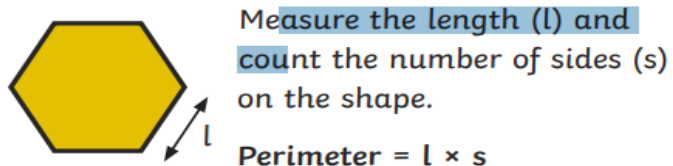
Key Vocabulary	Measure Perimeter	Calculate Perimeter
metre		
kilometre		
perimeter		
length		
width		
rectangle		
rectilinear		
dimensions		

Measure the perimeter of a rectangle:



Measure the length (l) and width (w).
Perimeter = $l + w + l + w$ or $(l + w) \times 2$

Measure the perimeter of regular shapes:

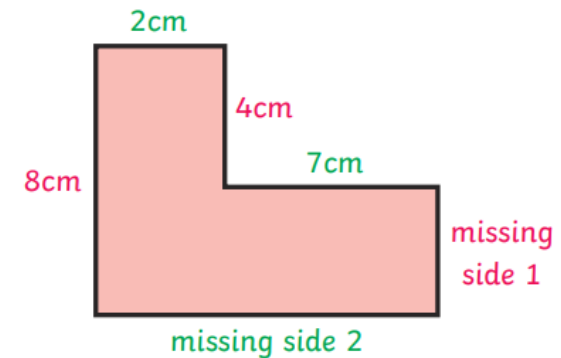


Measure the perimeter of irregular shapes:



Measure the length of each side and add them together.

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



* This shape is not drawn to the dimensions specified.

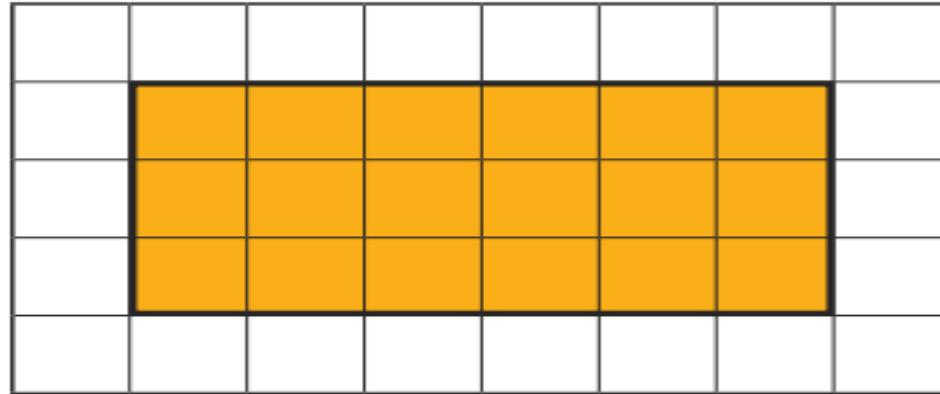
Missing side 1 + 4cm = 8cm,
so missing side 1 = 4cm.

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

Perimeter = sum of all sides =
 $2\text{cm} + 4\text{cm} + 7\text{cm} + 4\text{cm} + 9\text{cm} + 8\text{cm} = 34\text{cm}$

Area of Rectangles

The area of a rectangle on a grid:



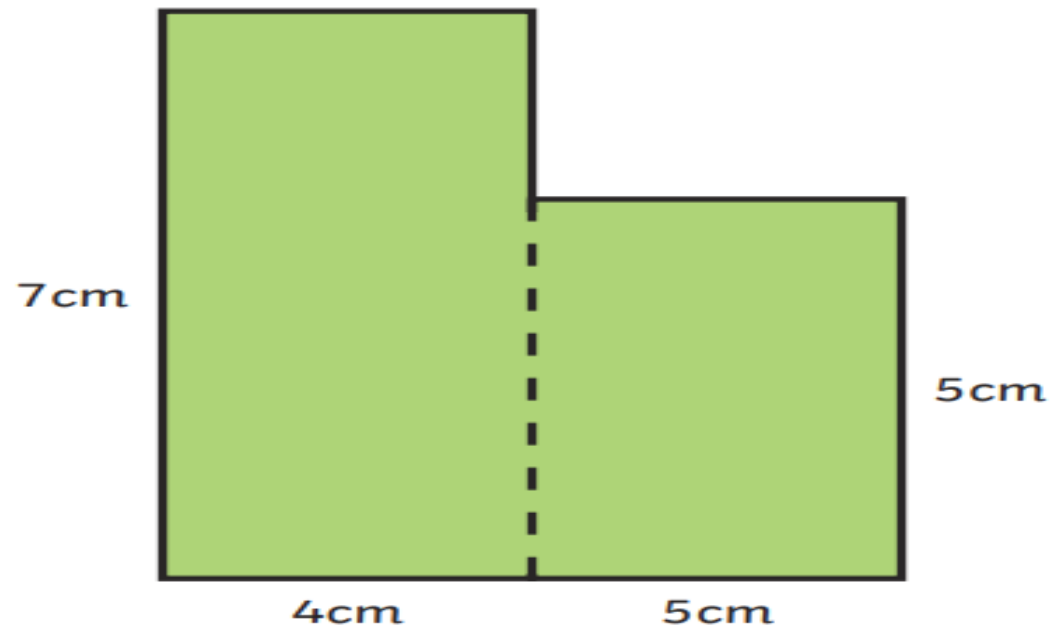
Multiply the length \times width
 $= 6 \times 3 = 18$ squares.

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



Area of Compound Shapes

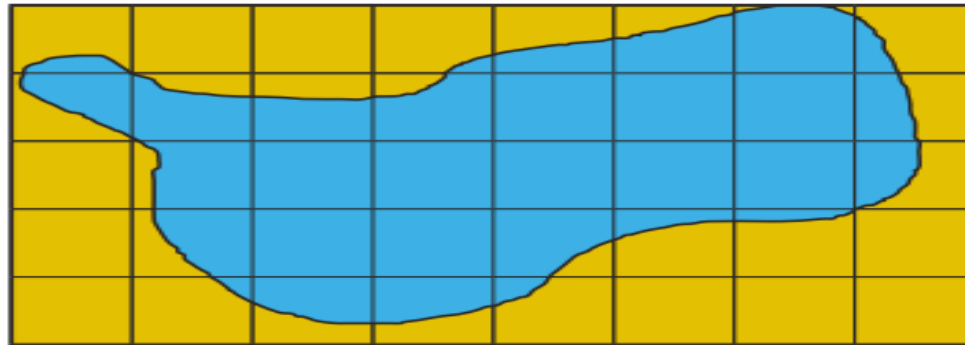
To find the area of a compound shape, divide the shape into rectangles with known dimensions:



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

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.