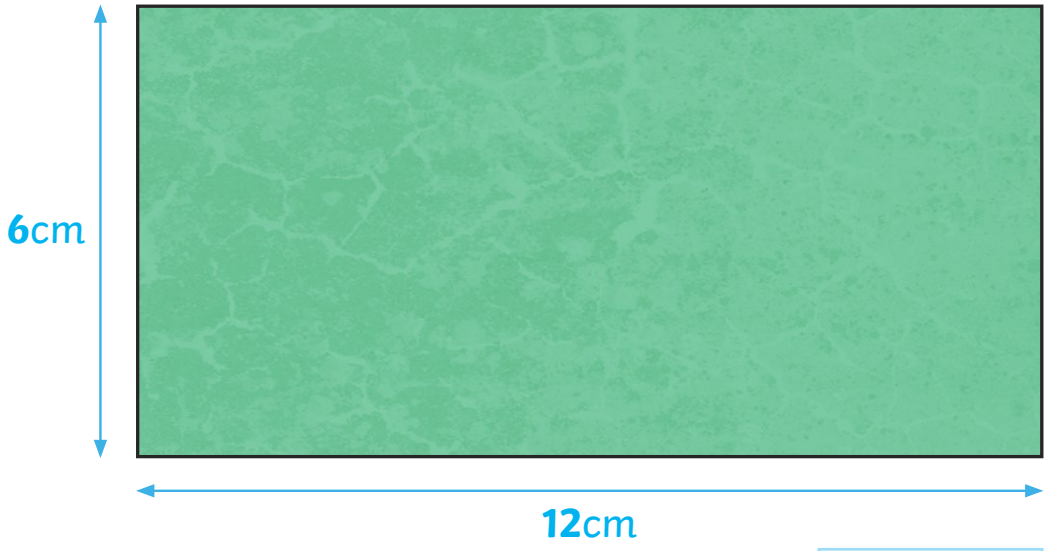
Perimeter of Rectangles

perimeter = distance around the outside of a shape



not to scale

Method 1

perimeter = length + width + length + width
= 12 + 6 + 12 + 6
= **36**cm

Method 2

perimeter = (length × 2) + (width × 2)
= (12 × 2) + (6 × 2)
= 24 + 12
= **36**cm

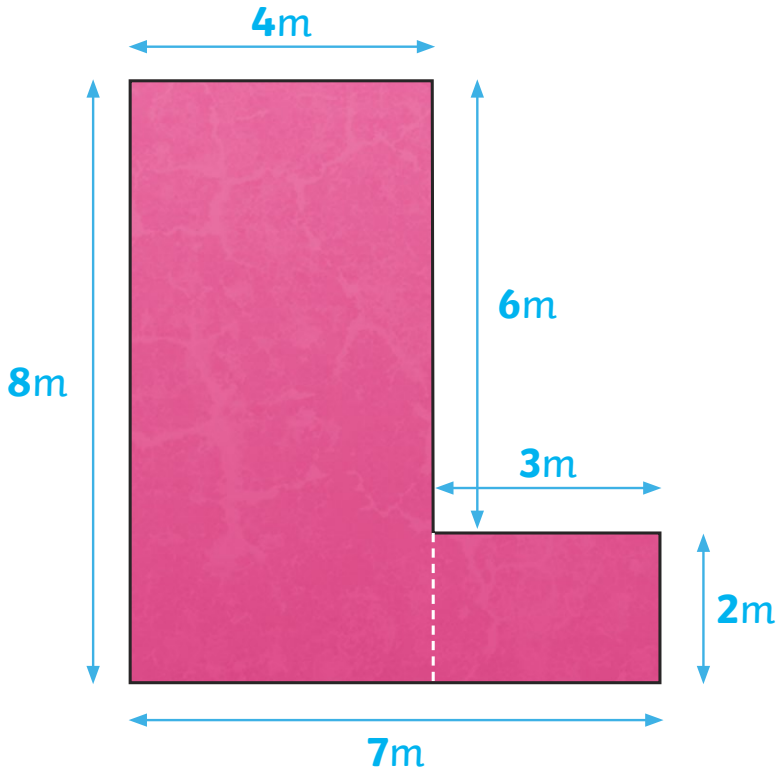
Method 3

perimeter = (length + width) × 2
= (12 + 6)× 2
= 18 × 2
= **36**cm

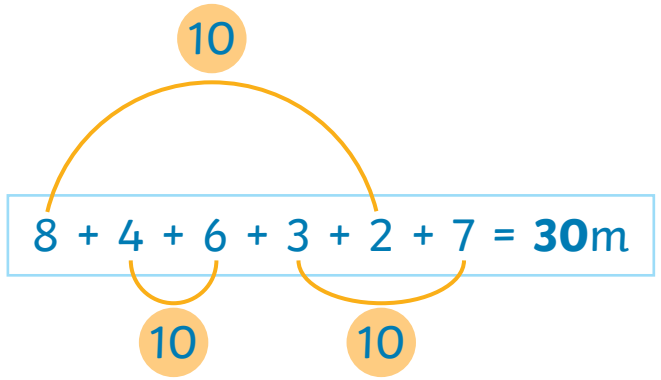
Perimeter of Rectilinear Shapes

Rectilinear shapes can be divided into rectangles.

perimeter = distance around the outside of a shape



not to scale

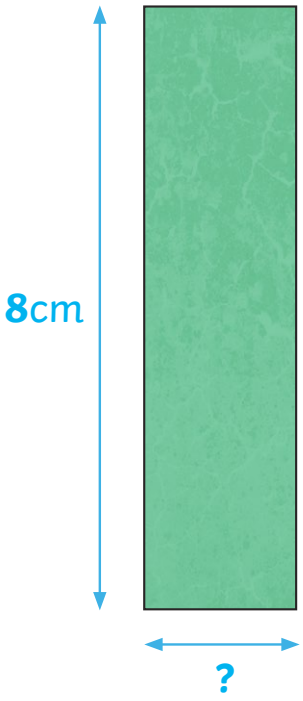


perimeter = **30**m

Perimeter: Finding Missing Lengths

perimeter = distance around the outside of a shape

Rectangles



not to scale

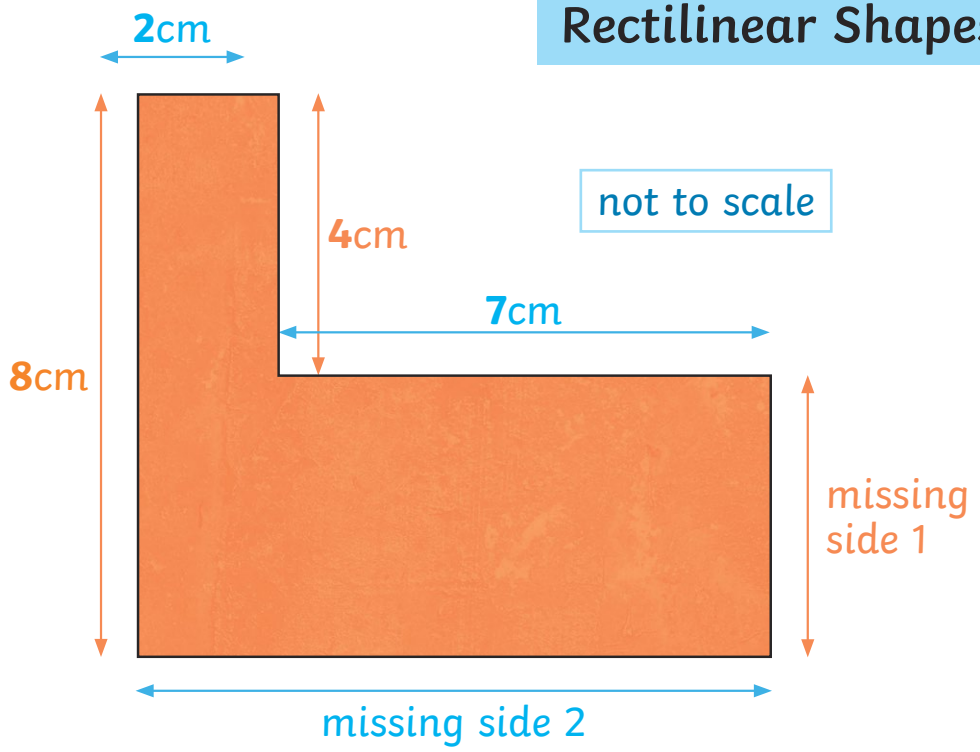
perimeter = **20**cm

20 = (8 + ?) × 2

10 = 8 + ?

? = 2cm

Rectilinear Shapes



not to scale

missing side 1 + 4 = 8cm,
so missing side 1 = **4**cm

missing side 2 = 2cm + 7cm = **9**cm

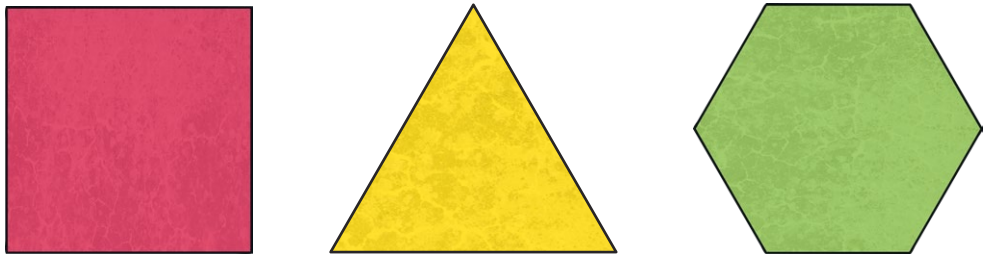
perimeter = sum of all sides =

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

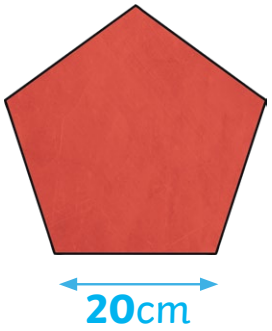
Perimeter of Polygons

Regular Polygon

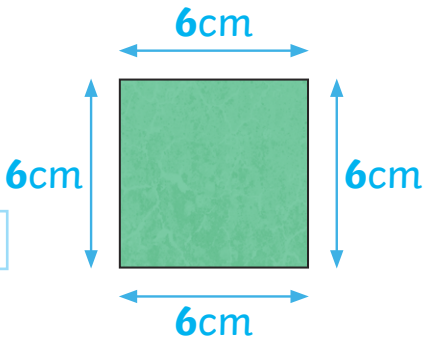
All sides are the same length.
All angles are equal in size.



Perimeter of Regular Polygons
= (number of sides) × (length of one side)



not to scale

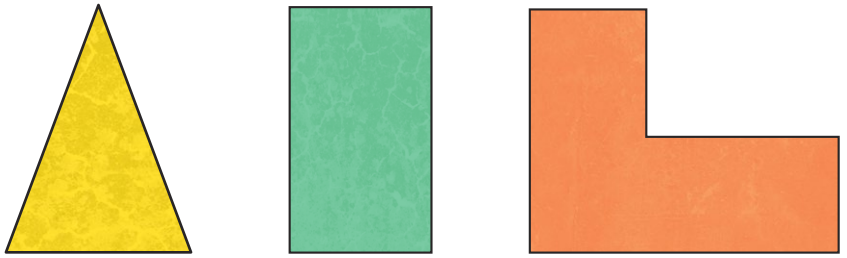


5 × 20 = 100
perimeter = **100**cm

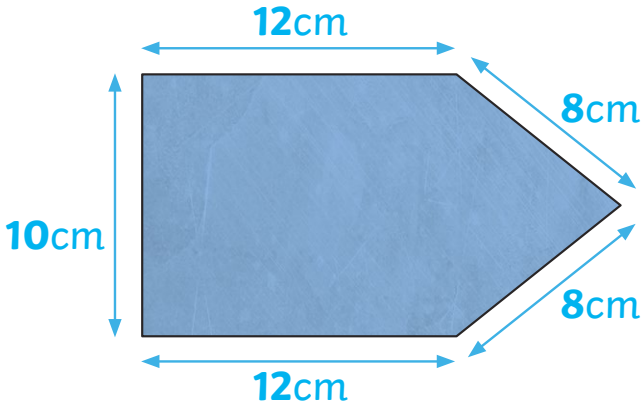
4 × 6 = 24
perimeter = **24**cm

Irregular Polygon

All sides are not the same length.
All angles are not all equal in size.



Perimeter of Irregular Polygons
= total length of all sides



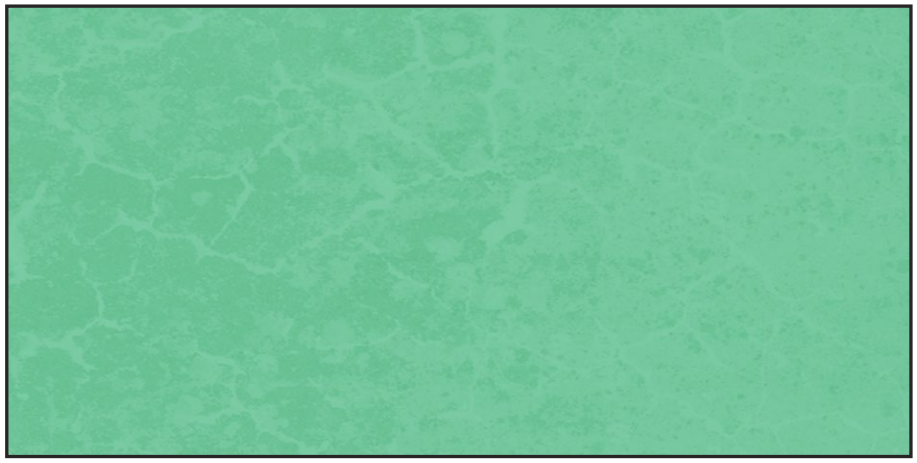
not to scale

10 + 12 + 8 + 8 + 12 = **50**cm
perimeter = **50**cm

Finding the Area of a Rectangle

The area is the total amount of surface a 2D shape covers.

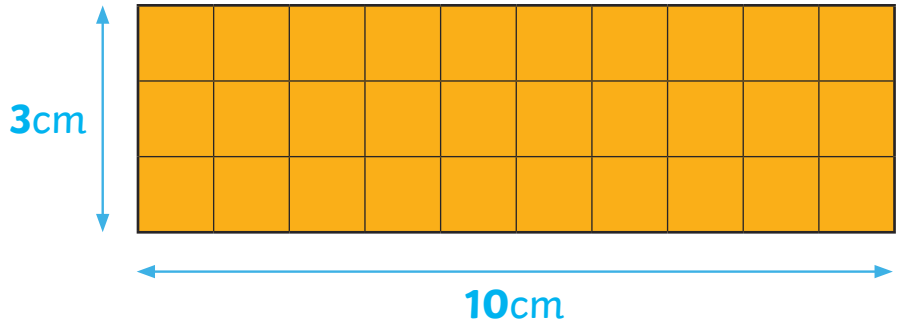
area of a rectangle = length × width



Area is measured in square units.

square centimetres (cm^2)
square metres (m^2)
square kilometres (km^2)

not to scale

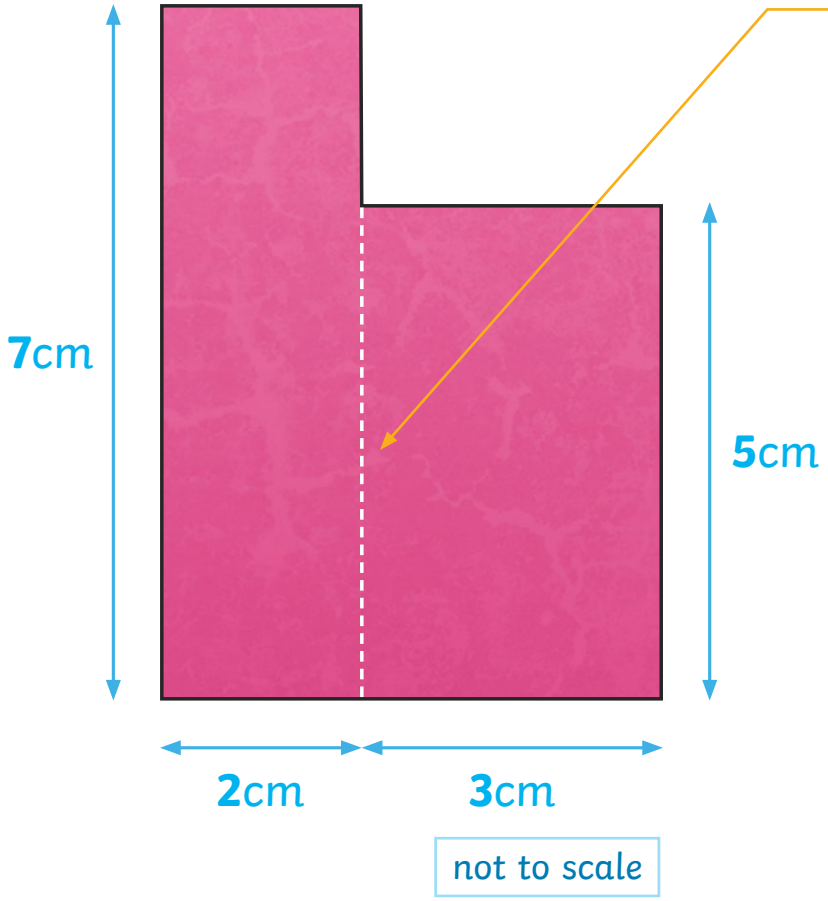


area = 10cm × 3cm = **30**cm^2

Finding the Area of a Compound Shape

The area is the total amount of surface a 2D shape covers.

area of a rectangle = length × width



You can find the area of this rectilinear shape by breaking it down into individual rectangles.

area = 7cm × 2cm + 3cm × 5cm

= $14cm^2$ + $15cm^2$

= **29**cm^2