

Key Vocabulary

perimeter

area

volume

cubic units (e.g. cm^3)

cuboid

width

length

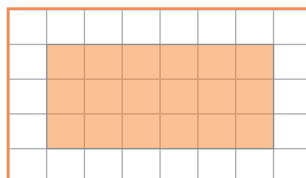
rectangle

rectilinear

parallelogram

perpendicular height

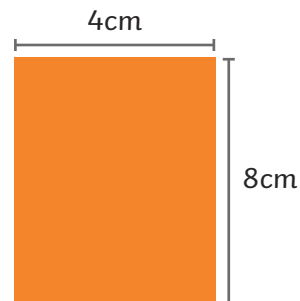
Area of Rectangles

length $\times$ width = area of a rectangle

Counting squares:

area = 18cm^2

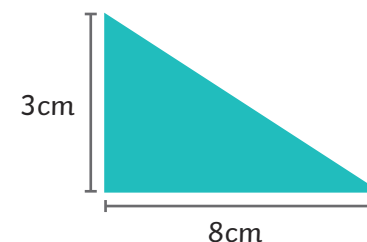
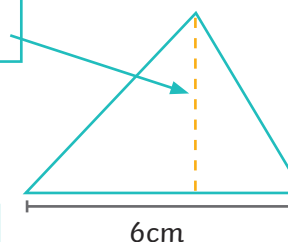
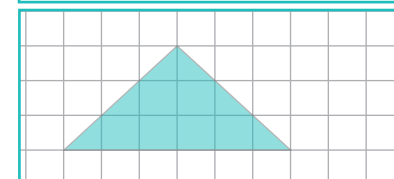
Use formula:

 $6\text{cm} \times 3\text{cm}$ area = 18cm^2  $8\text{cm} \times 4\text{cm}$ area = 32cm^2

Perimeter of Rectangles

perimeter = length + width + length + width or (length + width) $\times$ 2 $5\text{cm} + 4\text{cm} + 5\text{cm} + 4\text{cm}$
perimeter = 18cm $(6 + 2) \times 2$
perimeter = 16cm

Area of Triangles

base $\times$ perpendicular height $\div$ 2 = area of a triangle $8\text{cm} \times 3\text{cm} \div 2$
area = 12cm^2 perpendicular height = 5cm $6\text{cm} \times 5\text{cm} \div 2$
area = 15cm^2 

Counting squares:

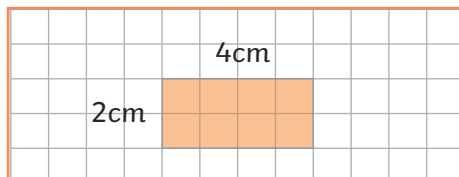
6 whole squares = 6cm^2 6 half squares = 3cm^2 $6\text{cm}^2 + 3\text{cm}^2 = 9\text{cm}^2$ area = 9cm^2

Using formula:

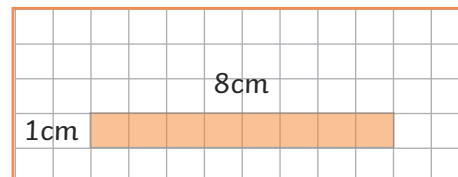
 $6\text{cm} \times 3\text{cm}$
 $\div 2 = 9\text{cm}^2$

Perimeter and Area

Shapes with the same area can have different perimeters.

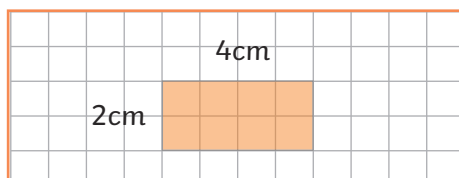


area = 8cm^2 perimeter = 12cm

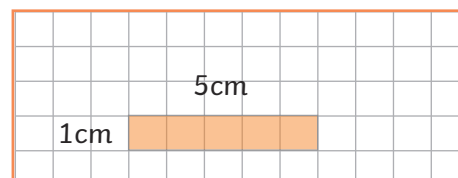


area = 8cm^2 perimeter = 18cm

Shapes with the same perimeter can have different areas.



area = 8cm^2 perimeter = 12cm

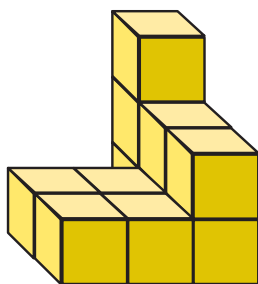


area = 5cm^2 perimeter = 12cm

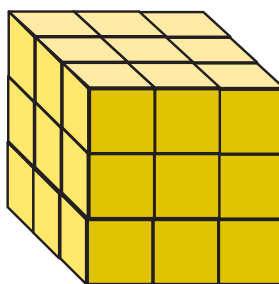
Volume - Counting Cubes



= 1cm^3



11cm^3

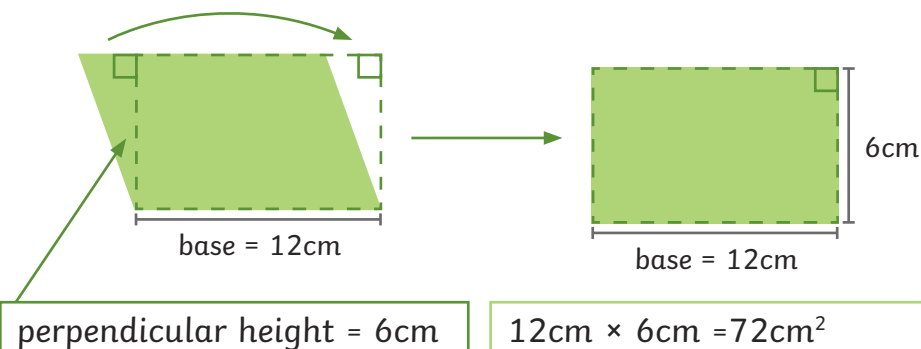


27cm^3

Area of Parallelograms

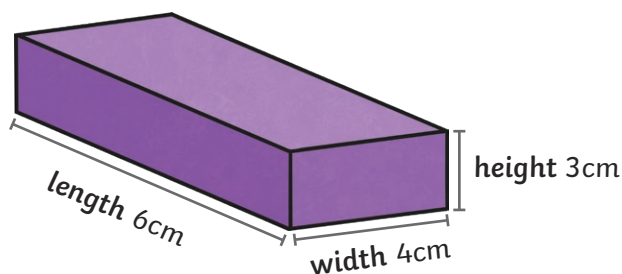
base $\times$ perpendicular height = area of a parallelogram

A parallelogram can be transformed into a rectangle.



Volume of Cuboids

length $\times$ width $\times$ height = volume of a cuboid



Multiply dimensions in **any** order:

$3\text{cm} \times 6\text{cm} \times 4\text{cm}$

volume = 72cm^3