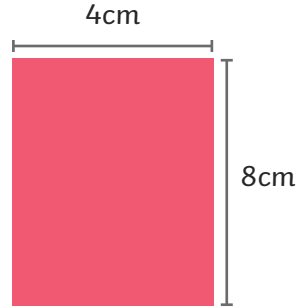
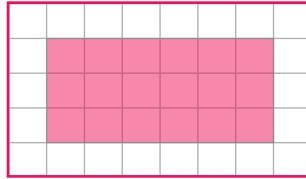


# Perimeter, Area and Volume Revision Summary 3

Key Vocabulary
perimeter
area
volume
cubic units (e.g. cm <sup>3</sup> )
cuboid
width
length
rectangle
rectilinear
parallelogram
perpendicular height

## Area of Rectangles

$$\text{length} \times \text{width} = \text{area of a rectangle}$$



**Counting squares:**

$$\text{area} = 18\text{cm}^2$$

**Use formula:**

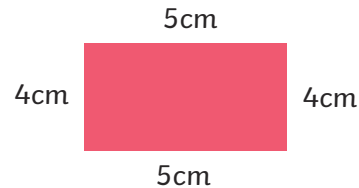
$$6\text{cm} \times 3\text{cm}$$

$$\text{area} = 18\text{cm}^2$$

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

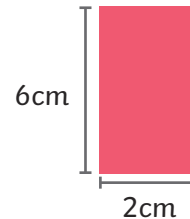
## Perimeter of Rectangles

$$\text{perimeter} = \text{length} + \text{width} + \text{length} + \text{width} \text{ or } (\text{length} + \text{width}) \times 2$$



$$5\text{cm} + 4\text{cm} + 5\text{cm} + 4\text{cm}$$

$$\text{area} = 18\text{cm}^2$$

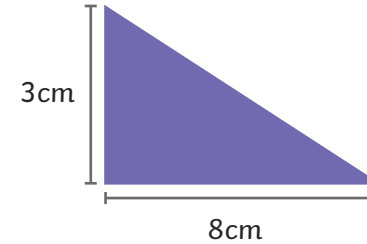


$$(6 + 2) \times 2$$

$$\text{area} = 16\text{cm}^2$$

## Area of Triangles

$$\text{base} \times \text{perpendicular height} \div 2 = \text{area of a triangle}$$



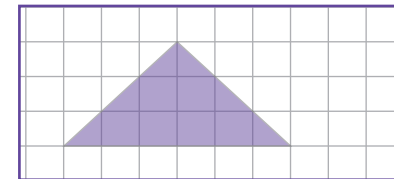
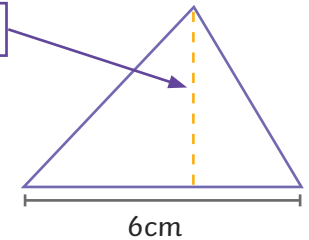
$$8\text{cm} \times 3\text{cm} \div 2$$

$$\text{area} = 12\text{cm}^2$$

**perpendicular height = 5cm**

$$6\text{cm} \times 5\text{cm} \div 2$$

$$\text{area} = 15\text{cm}^2$$



**Counting squares:**

$$6 \text{ whole squares} = 6\text{cm}^2$$

$$6 \text{ half squares} = 3\text{cm}^2$$

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

$$\text{area} = 9\text{cm}^2$$

**Using formula:**

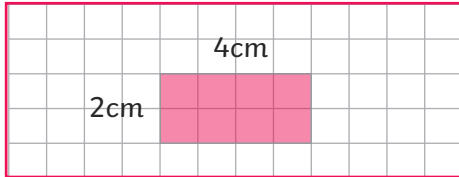
$$6\text{cm} \times 3\text{cm}$$

$$\div 2 = 9\text{cm}^2$$

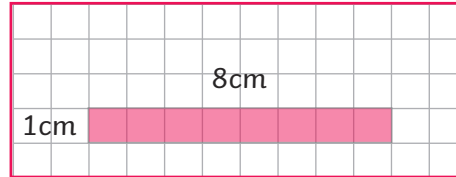
# Perimeter, Area and Volume Revision Summary 3

## Perimeter and Area

Shapes with the same area can have different perimeters.

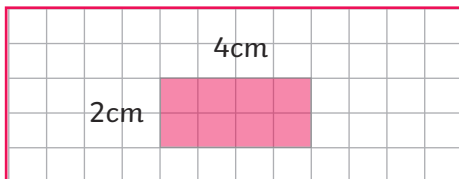


area =  $8\text{cm}^2$  perimeter = 12cm

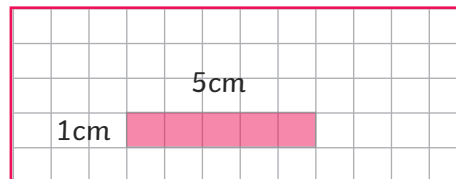


area =  $8\text{cm}^2$  perimeter = 18cm

Shapes with the same perimeter can have different areas.



area =  $8\text{cm}^2$  perimeter = 12cm

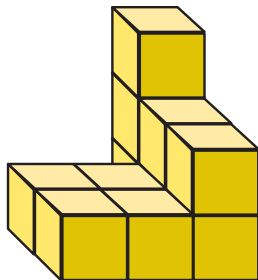


area =  $5\text{cm}^2$  perimeter = 12cm

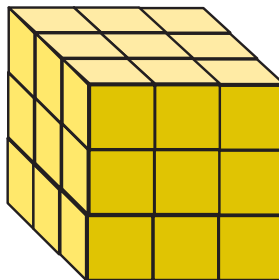
## Volume - Counting Cubes



=  $1\text{cm}^3$



$11\text{cm}^3$

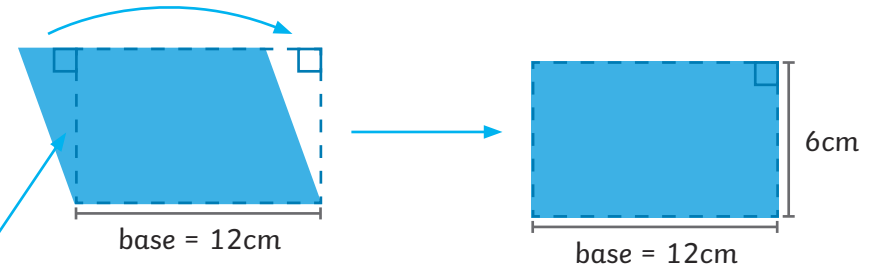


$27\text{cm}^3$

## Area of Parallelograms

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

A parallelogram can be transformed into a rectangle.

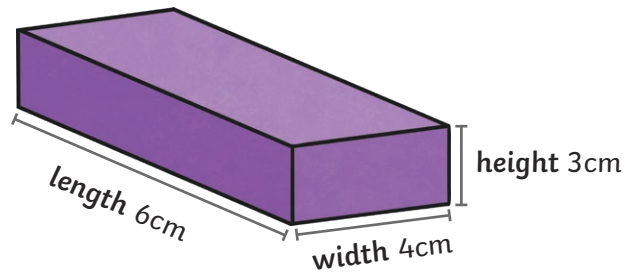


perpendicular height = 6cm

$12\text{cm} \times 6\text{cm} = 72\text{cm}^2$

## 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 =  $72\text{cm}^3$