Year 6 Area Knowledge

perimeter

area

dimensions

perpendicular

parallelogram

rectilinear

regular

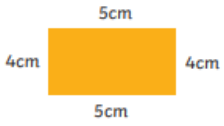
volume

cm^3 cubic cm

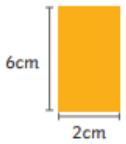
irregular

Perimeter of Rectangles

perimeter = length + width + length + width or (length + width) × 2



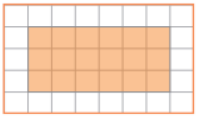
5cm + 4cm + 5cm + 4cm
area = 18cm²



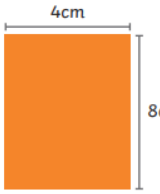
(6 + 2) × 2
area = 16cm²

Area of Rectangles

length × width = area of a rectangle



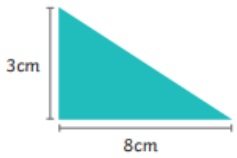
Counting squares:
area = 18cm²
Use formula:
6cm × 3cm
area = 18cm²



8cm × 4cm area = 32cm²

Area of Triangles

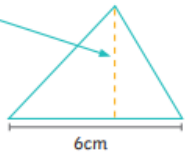
base × perpendicular height ÷ 2 = area of a triangle

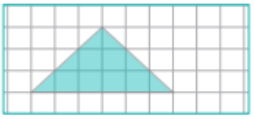


8cm × 3cm ÷ 2
area = 12cm²

perpendicular height = 5cm

6cm × 5cm ÷ 2
area = 15cm²





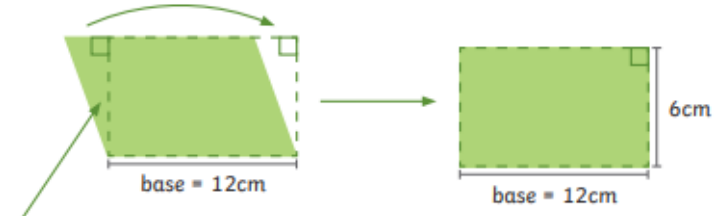
Counting squares:
6 whole squares = 6cm²
6 half squares = 3cm²
6cm² + 3cm² = 9cm²
area = 9cm²

Using formula:
6cm × 3cm
÷ 2 = 9cm²

Area of Parallelograms

base × perpendicular height = area of a parallelogram

A parallelogram can be transformed into a rectangle.



perpendicular height = 6cm

12cm × 6cm = 72cm²

Perimeter and Area

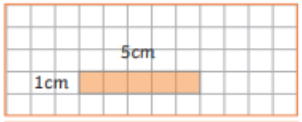
Shapes with the same area can have different perimeters.

area = 8cm² perimeter = 12cm

area = 8cm² perimeter = 18cm

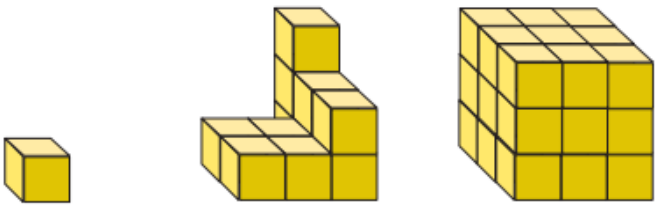
Shapes with the same perimeter can have different areas.

area = 8cm² perimeter = 12cm



area = 5cm² perimeter = 12cm

Volume - Counting Cubes



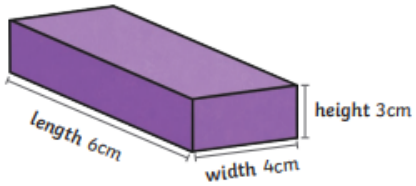
= 1cm³

11cm³

27cm³

Volume of Cuboids

length × width × height = volume of a cuboid



Multiply dimensions in **any** order:
3cm × 6cm × 4cm
volume = 72cm³