Perimeter is the **distance around the outside of a 2D shape.** To find the perimeter, **add up the lengths of all the sides.** Sometimes there might be side lengths missing, so work out the lengths of all the sides before calculating the perimeter.

The area of a 2D shape is the **amount of surface it covers.** It is the area inside the shape. When writing the units for measurement we use the $^2$ sign to show it is square centimetres or square metres e.g. cm$^2$ or m$^2$.

To calculate the **area of a rectangle**, multiply the length by the width.

\[
4\text{cm} \times 3\text{cm} = 12\text{cm}^2
\]

To calculate the **area of a rectilinear shape**, break it down into individual rectangles.

\[
8\text{cm} \times 9\text{cm} = 72\text{cm}^2 \\
7\text{cm} \times 4\text{cm} = 28\text{cm}^2 \\
72 + 28 = 100\text{cm}^2
\]

**Area of a parallelogram**

Multiply the base by the perpendicular height.

\[
12 \times 5 = 60\text{cm}^2
\]

**Area of a triangle**

Multiply the base by the perpendicular height then divide by 2.

\[
15 \times 4 \div 2 = 30\text{cm}^2
\]
1. Calculate the perimeter of the rectangle.

   A- 24cm²
   B- 10cm
   C- 20cm
   D- 20cm²

2. Calculate the area.

   A- 28m
   B- 80m²
   C- 65m²
   D- 32m

3. Which calculation will find the area of the triangle?

   A- 24 × 10
   B- 10 × 24 × 26 ÷ 2
   C- 10 + 26 + 24
   D- (10mm × 24mm) ÷ 2

4. Calculate the perimeter of the parallelogram.
5. Here are 4 shapes on a grid. Three of the shapes have the same area.

Which shape has a different area?

6. The area of a field is 560m². The length of the field is 70 metres. What is the width of the field?
Challenge

The rectangles both have an area of $44\text{cm}^2$

Do they both have the same perimeter?

Explain your answer.