

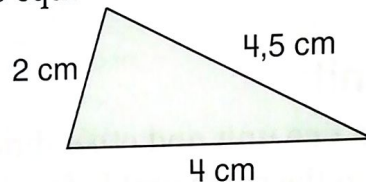
Using formulae to calculate perimeter

Different shapes use different formulae to calculate perimeter.

To calculate the perimeter of a square or a rectangle, use these formulae.

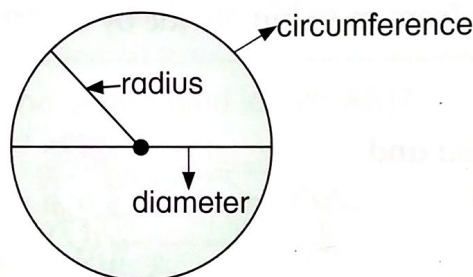
Perimeter of a square	Perimeter of a rectangle
$P = s + s + s + s$ or $P = 4s$	$P = 2(l + b)$ or $P = 2l + 2b$

In other polygons the perimeter is equal to the sum of the lengths of all the sides.



$$P = 2 \text{ cm} + 4,5 \text{ cm} + 4 \text{ cm} = 10,5 \text{ cm}$$

The perimeter of a circle is called the circumference. The radius of a circle is the distance from the centre to the circumference. The diameter of a circle is the distance across the circle from one side to the other, through the centre. The length of the diameter is twice the length of the radius.



To calculate the circumference of a circle, use these formulae.

Circumference of a circle

$$C = \pi d$$

or

$$C = 2\pi r$$

$$\text{Diameter of a circle } d = 2r$$



Note

Remember $\pi \approx 3,142$

Example 2

Calculate the circumference of the circle. Round off to one decimal place.

Solution

$$C = \pi d$$

$$C = \pi \times 4$$

$$= 3,142 \times 4$$

$$= 12,56636 \text{ cm}$$

$$\approx 12,6 \text{ cm}$$

