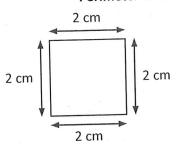
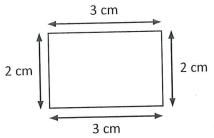
## Perimeter – perimeter of shapes

Perimeter is the length around the outside of a shape.



The perimeter of the square is 8 cm.



The perimeter of the rectangle is 10 cm.

- Draw the following shapes and work out their perimeters:
  - a A square with 3 cm sides.

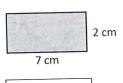
**b** A rectangle with two 4 cm sides and two 3 cm sides.

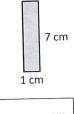
cm

c A rectangle that is twice as long as it is wide.

These shapes are not to scale, so you can't use your ruler to work out the perimeter. Can you find the perimeter of these shapes?

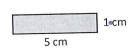
a



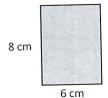


e

P = cm



d



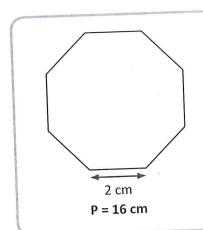
cm



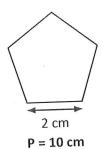
cm

9 cm

## Perimeter – perimeter of shapes



These regular polygons\* have sides of equal lengths.

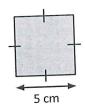


1 cm P = 6 cm

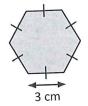


P = 4 cm

Find the perimeter of these regular polygons\*:



cm P =



cm

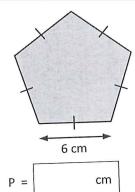
\*Not drawn to scale.

C

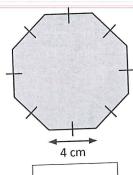


cm P =

d



e



cm

What is the fastest way to do this?



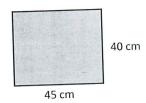
The perimeters of some regular polygons are given in the table below. Fill in the length of the sides:

Perimeter	24 cm	40 cm	48 cm	25 cm
Length of each side				

## Perimeter – calculate perimeter

Find the perimeter of these shapes. Choose a unit of measurement to express your answer.

a



b



2 m

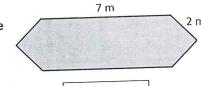
С



1.5 m

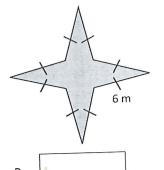
1.8 m

е



g

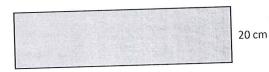
P =



These shapes are all symmetrical. How does that help me?

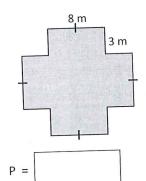


d

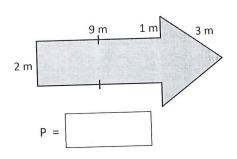


1.5 m

f



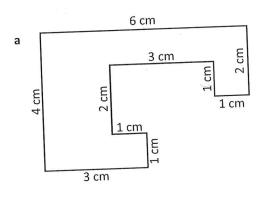
h

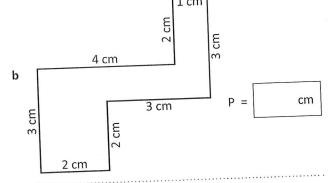


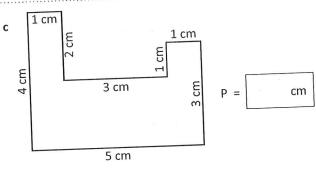
## Perimeter – calculate perimeter

Irregular shapes are not symmetrical. This means we need to measure each side.

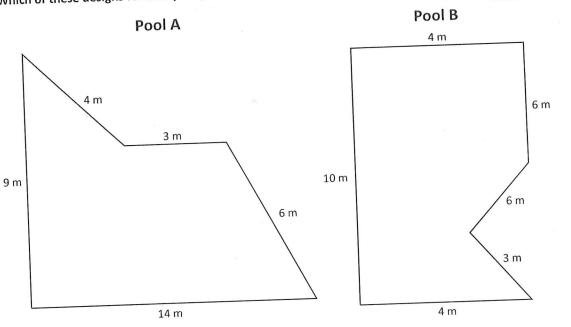
Find the perimeters of these irregular shapes:



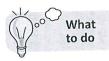




Which of these designs for backyard pools would be the least expensive to fence?



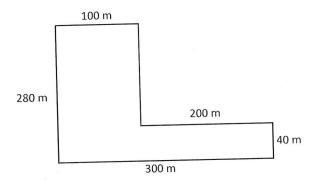
Why?\_



a The length of a rectangle is double its width. Find the perimeter if the width is 200 cm.

**b** The length of a rectangle is 6 times its width. Find the length and width of the rectangle if the perimeter is 7 metres.

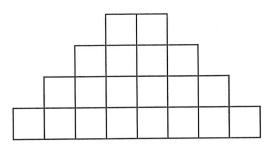
c Charlie ran around the school 3 times. How far did she run? Write your answer in km.



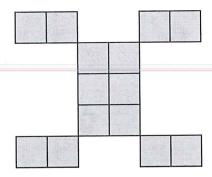
**d** Jake wants to build a fence around his swimming pool to comply with safety regulations. If the length of his pool area is 6 metres and the width is 4 metres, how much will it cost? Fencing costs \$55.50 a metre.



a The area of each square is 9 cm<sup>2</sup>. What is the perimeter of this figure?



**b** The figure is made up of 14 squares. Each square has an area of 36 cm<sup>2</sup>. What is the perimeter?



c The area of this rectangle is 288 cm<sup>2</sup>. If all the smaller rectangles are exactly the same, what is the perimeter of one rectangle?

