

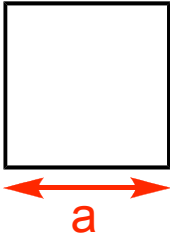
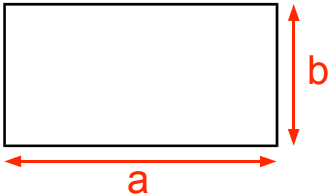
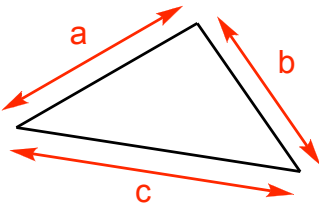
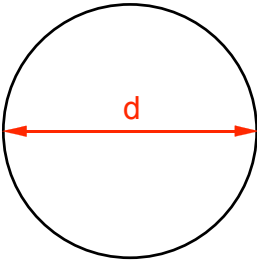
Perimeter

What's perimeter?

Perimeter is the distance all the way around a two-dimensional shape.

Calculating the perimeter of simple shapes

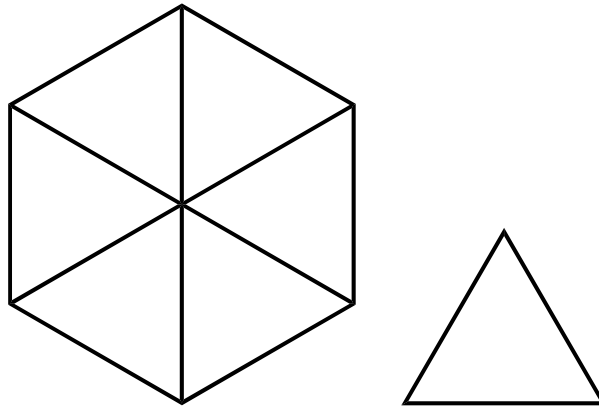
Perimeter is one of the easiest features of a shape to calculate. All you need to know are the lengths of its sides.

Shape	Diagram	Perimeter
Square	 A square with a red double-headed arrow below the bottom side labeled 'a'.	$P_{\text{square}} = 4a$
Rectangle	 A rectangle with a red double-headed arrow below the bottom side labeled 'a' and a red double-headed arrow to the right of the right side labeled 'b'.	$P_{\text{rectangle}} = 2a + 2b$
Triangle	 A triangle with red double-headed arrows on each side labeled 'a', 'b', and 'c'.	$P_{\text{triangle}} = a + b + c$
Circle	 A circle with a red double-headed arrow across the center labeled 'd'.	$P_{\text{circle}} = \pi d$

Perimeter in exam papers

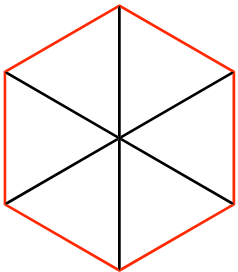
Because perimeter is too easy to make up a whole question in exams, you often find it as part of a more difficult question. Here's an example:

A regular hexagon is made from 6 equilateral triangles as shown.
The perimeter of the hexagon is 54 centimetres.

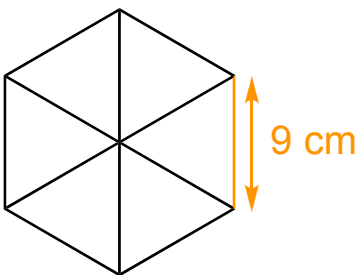


Work out the perimeter of one of the equilateral triangles.

To solve this problem, all you need to realise is that a regular hexagon's sides are all the same length, and that an equilateral triangle's sides are also all the same length.

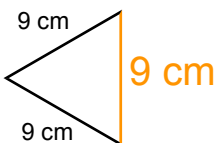


The perimeter of the hexagon, shown here in red, is 54 cm.



The perimeter is made of six equal line segments, shown here in orange. Each one forms one side of an equilateral triangle.

The length of the orange side is $54 \text{ cm} \div 6 = 9 \text{ cm}$.



All three sides of an equilateral triangle are equal in length, so they are all 9 cm long. The perimeter of each equilateral triangle is $9 \text{ cm} + 9 \text{ cm} + 9 \text{ cm} = 27 \text{ cm}$.