

PERIMETER

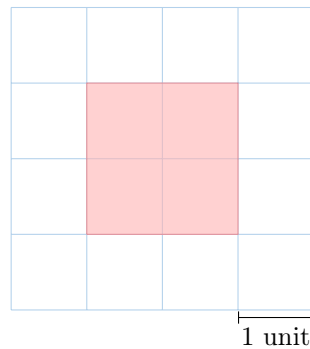
A DEFINITION

Definition Perimeter

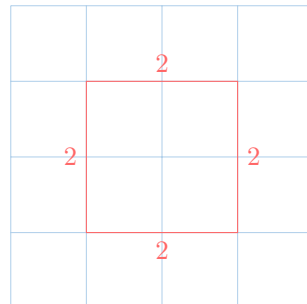
The **perimeter** of a shape is the total length around its outside edge.

To find the perimeter, imagine walking around the shape like it's a park. Count the number of unit lengths along each side as you go.

Ex: Find the perimeter of the red shape:



Answer:

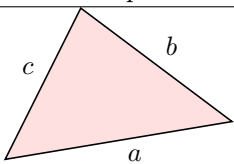
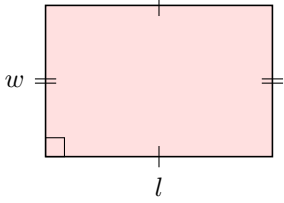
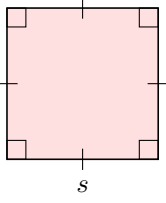
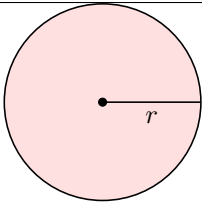


To find the perimeter, we add the length of all 4 sides : $2 + 2 + 2 + 2$.
The perimeter is 8 units.

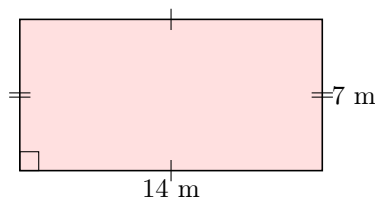
B PERIMETER OF COMMON SHAPES

Method Finding a Polygon's Perimeter

To find the perimeter of any polygon (a shape with straight sides), add up the lengths of all its sides.

Name	Shape	Perimeter
Triangle		$a + b + c$
Rectangle		$l + w + l + w = (2 \times l) + (2 \times w)$
Square		$s + s + s + s = 4 \times s$
Circle		$2 \times \pi \times r$

Ex: Find the perimeter of the rectangle:



Answer: This is a rectangle with length $L = 14$ m and width $l = 7$ m. Using the formula for the perimeter of a rectangle:

$$\begin{aligned}
 P &= (2 \times L) + (2 \times l) \\
 &= (2 \times 14) + (2 \times 7) \\
 &= 28 + 14 \\
 &= 42 \text{ m}
 \end{aligned}$$

So, the perimeter is 42 meters.

C PERIMETER OF COMPOSITE FIGURES

Definition Composite Figure

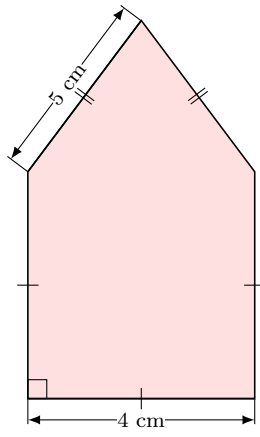
A **composite figure** is a shape made up of two or more simple shapes, like triangles, rectangles, or squares, combined together.

Method Finding the Perimeter of a Composite Figure

To find the perimeter of a composite figure:

1. Identify all the outer sides of the shape.
2. Add the lengths of these outer sides together to find the total perimeter.

Ex: Find the perimeter of the composite figure:



Answer:

$$P = 4 \text{ cm} + 3 \times 4 \text{ cm} + 2 \times 5 \text{ cm}$$

$$P = 22 \text{ cm}$$