

Perimeter of triangle

1. Introduction

Perimeter is the total length of the boundary of a triangle.

It is the sum of the lengths of all three sides.

2. Formula for Perimeter of a Triangle

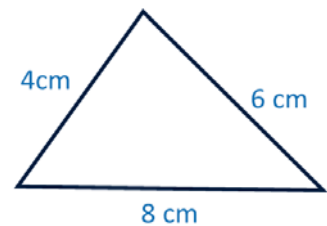
Perimeter = Side 1 + Side 2 + Side 3

3. Example Calculations

Example 1:

Find the perimeter of a triangle with sides 4 cm, 6 cm, and 8 cm.

$$P = 4 + 6 + 8 = 18 \text{ cm}$$

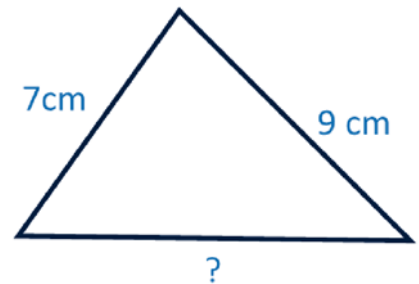


Example 2:

A triangle has two sides measuring 7 cm and 9 cm, and its perimeter is 25 cm. Find the third side.

$$25 = 7 + 9 + x$$

$$x = 25 - 16 = 9 \text{ cm}$$



4. Properties of the Perimeter of a Triangle

- The perimeter is the sum of all three sides.
- A triangle's perimeter depends on the lengths of its sides.
- For an equilateral triangle, where all sides are equal, the perimeter is: $P = 3 \times \text{side}$
- For an isosceles triangle, where two sides are equal, the perimeter is: $P = 2 \times \text{equal side} + \text{other side}$
- For a right-angled triangle, use the Pythagoras theorem to find missing sides before calculating the perimeter.