Perimeter of rectangle

1. Introduction

Perimeter is the total length of the boundary of a rectangle. It is the sum of all four sides of the rectangle.

2. Formula for Perimeter of a Rectangle

Perimeter = 2 × (Length +Breadth)

- □ **Length (L)** \rightarrow The longer side of the rectangle.
- \Box Breadth (B) \rightarrow The shorter side of the rectangle.

3. Example Calculations

Example 1:

Find the perimeter of a rectangle with Length = 8 cm and Breadth = 5 cm.

 $P = 2 \times (8 + 5) = 2 \times 13 = 26 \text{ cm}$

Example 2:

A rectangle has a perimeter of 40 cm and length of 12 cm. Find the breadth.

 $40 = 2 \times (12 + B)$

20 = 12 + B

B = 8 cm

4. Properties of the Perimeter of a Rectangle

- i. The perimeter depends on both length and breadth.
- ii. If length and breadth increase, the perimeter also increases.
- iii. A square is a special rectangle where all sides are equal.
- iv. Doubling the length and breadth doubles the perimeter.
- v. Perimeter is always measured in units like cm, m, or km.



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 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 cm

4. Properties of the Perimeter of a Triangle

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



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