

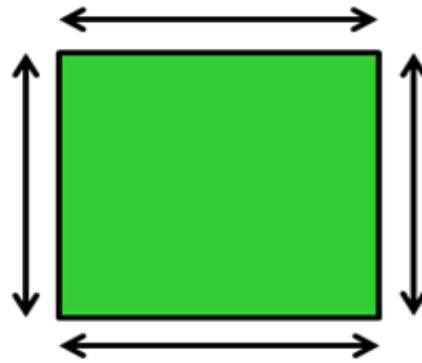
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SECTOR 24 - B CHANDIGARH

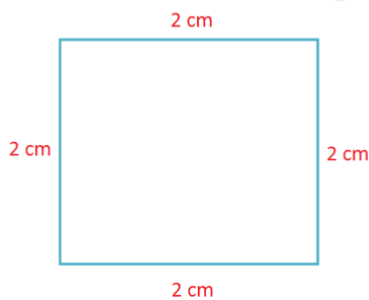
Chapter 13 Perimeter and Area

# What is Perimeter?

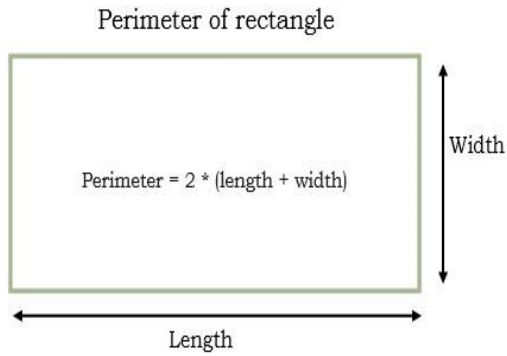
The perimeter is the distance all the way around the outside of a 2D shape.



## Perimeter of a Square



**Perimeter of square = 4 x side**

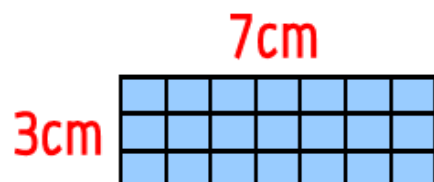


**Perimeter of Rectangle =  $2 \times (\text{length} \times \text{breadth})$**

# Finding the Area (rectangle)

To work out the area of a rectangle, multiply its length (the longer side) by its width (the shorter side):

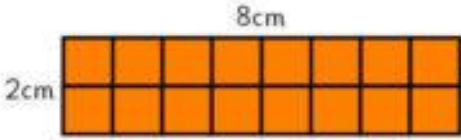
**length  $\times$  width = area**



The area of this rectangle is

**$7\text{cm} \times 3\text{cm} = 21 \text{ cm}^2$**

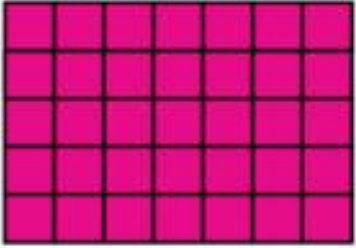
## Finding the **area**: rectangle



8cm  
2cm

The area:  
8cm × 2cm  
**= 16cm<sup>2</sup>**

The area:  
7cm × 5cm  
**= 35cm<sup>2</sup>**



7cm  
5cm

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**Area of rectangle = length x breadth**

**Area of square = side x side**

### ACTIVITY - 3

**Q2. Find the perimeter of triangle whose sides are :**

Sol . **a.** 8 cm , 7cm and 11 cm =  $8 + 7 + 11 = 26\text{cm}$

**b.** 21 cm , 24 cm and 30 cm =  $21 + 24 + 30 = 75\text{ cm}$

**c.** 14 m , 17 m and 20 m =  $14 + 17 + 20 = 51\text{ m}$

**Q-3. Find the perimeter of an equilateral triangle whose side is 15cm long .**

Sol. Perimeter of Equilateral triangle = 3 x side

$$= 3 \times 15 = 45\text{cm}$$

**Q-4. The perimeter of an equilateral triangle is 36 cm . Find the side of the equilateral triangle .**

Sol . Perimeter = 36cm

$$3 \times \text{side} = 36$$

$$\text{Side} = 36 \div 3$$

$$= 36 \div 3 = 12 \text{ cm}$$

**Q5. Find the perimeter of Square :**

**Perimeter of Square = 4 x Side**

a.  $14 \text{ cm} = 4 \times \text{side} = 4 \times 14 = 56 \text{ cm}$

b.  $35 \text{ cm} = 4 \times \text{side} = 4 \times 35 = 140\text{cm}$

c.  $17 \text{ m} = 4 \times \text{side} = 4 \times 17 = 68 \text{ m}$

d.  $42 \text{ m} = 4 \times \text{side} = 4 \times 42 = 168 \text{ m}$

**Q-6. The perimeter of a square cloth is 220 cm . Find the length of the side of the square cloth .**

Sol . Perimeter of square cloth = 220 cm

$$4 \times \text{Side} = 220$$

$$\text{Side} = 220 \div 4$$

$$= 220 \div 4 = 55\text{cm}$$

**Q7. Find the perimeter of Rectangle :**

a. length = 24 cm , breadth = 17 cm

$$\text{Perimeter} = 2 \times (\text{L} + \text{B})$$

$$= 2 \times (24 + 17)$$

$$= 2 \times 41 = 82 \text{ cm}$$

b. length = 42 cm , breadth = 20 cm

$$\text{perimeter} = 2 \times (\text{L} + \text{B})$$

$$= 2 \times (42 + 20)$$

$$= 2 \times 62 = 124 \text{ cm}$$

c. length = 36 cm , breadth = 15 cm

$$\begin{aligned}\text{perimeter} &= 2 \times (L + B) \\ &= 2 \times (36 + 15) \\ &= 2 \times 51 = 102 \text{ cm}\end{aligned}$$

**Q-8. The length and breadth of a rectangular park are 96 m and 64m respectively . Find the length of the wire needed to fence all around the rectangular park .**

Sol. Length = 96 m

Breadth = 64 m

Length of wire needed = Perimeter of park

$$\begin{aligned}&= 2 \times (L + B) \\ &= 2 \times (96 + 64) \\ &= 2 \times 160 = 320\text{m}\end{aligned}$$

**Q-10 Maya has a table cloth of length 2m and breadth 1m . She wants to put a lace all around it . She bought 10 m of lace for this . Is the lace sufficient? Will there be any lace left?**

Sol. Length = 2m , Breadth = 1m

$$\begin{aligned}P &= 2 \times (L + B) \\ &= 2 \times (2 + 1) \\ &= 2 \times 3 = 6 \text{ m}\end{aligned}$$

Length of lace bought = 10 m

Length of lace needed = 6m

Length of lace left = 10 m – 6 m = **4 m**