



Chapter 10

Mensuration

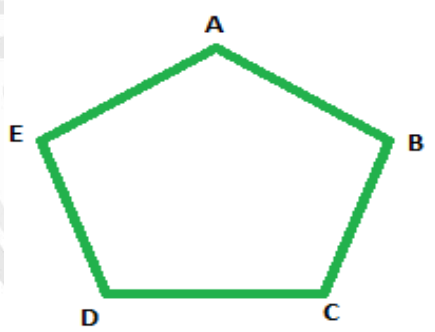
Notes:

Mensuration:

Mensuration is the branch of mathematics that deals with the measurement of length, area or volume of various geometric shapes.

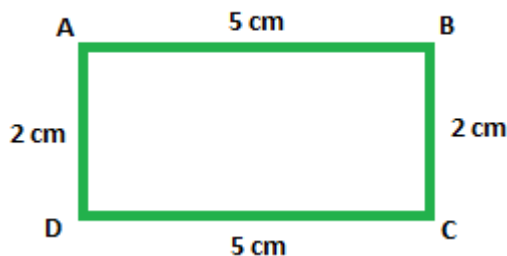
Perimeter:

Perimeter is the total length or total distance covered along the boundary of a closed shape.



Perimeter of above figure = $AB + BC + CD + DE + EA$

Perimeter of a Rectangle:



Perimeter of the above rectangle = $AB + BC + CD + DA$

$$= AB + BC + AB + BC \quad (\text{Since } AB = CD \text{ and } BC = DA)$$

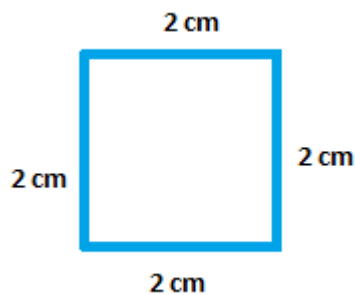
$$= 2 \times AB + 2 \times BC$$

$$\begin{aligned}
 &= 2 \times (AB + BC) \\
 &= 2 \times (5 \text{ cm} + 2 \text{ cm}) \\
 &= 2 \times 7 \text{ cm} \\
 &= 14 \text{ cm}
 \end{aligned}$$

Perimeter of regular shapes:

Perimeter of Square:

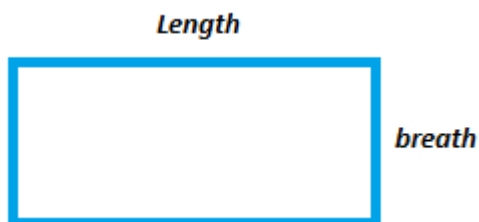
Perimeter of a Square = 4 x length of a side



Perimeter of above square = 2 cm + 2 cm + 2 cm + 2 cm = 8 cm

Or 4 x 2 cm = 8 cm.

Perimeter of a Rectangle

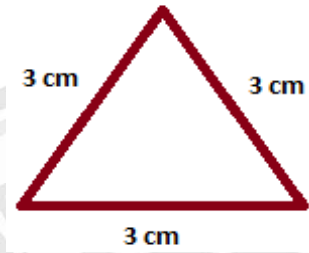


Perimeter of the rectangle = sum of lengths of each four sides

$$= 2 \times (\text{Length} + \text{Breath})$$

Perimeter of a Triangle

Perimeter of an equilateral triangle = 3 x length of a side



Perimeter of the above equilateral triangle = $3 + 3 + 3 \text{ cm}$
 $= 3 \times 3 \text{ cm} = 9 \text{ cm}$

Area

The total amount of surface enclosed by a closed figure is called its area.

Area of square = side x side = side^2

Area of rectangle = length x breadth

Area of triangle = $\frac{1}{2} \times \text{base} \times \text{height}$.



মণিপুরৰ শিক্ষা বিভাগ (পাণ্ডা)
DEPARTMENT OF EDUCATION (S)
Government of Manipur