ATOMIC ENERGY EDUCATION SOCIETY

Perimeter and Area – 1/2

Let l and b denote the length and breadth of a rectangle. Then,

(i) Perimeter = 2(l + b)

(ii) Area = l x b

(iii) Diagonal = $\sqrt{l^2 + b^2}$

Let 'a' be the length of each side of a square. Then,

(i) Perimeter = 4a

(ii) Area = a^2

(iii) Diagonal = $a\sqrt{2}$

Area of four walls of a room = 2(l+b) x h

Diagonal of the room = $\sqrt{l^2 + b^2 + h^2}$

Area of a parallelogram = Base x height = b x h

Area of rhombus = $\frac{1}{2}$ (Product of diagonals)

Area of triangle = $\frac{1}{2}$ x Base x Height

Area of an equilateral triangle = $\frac{\sqrt{3}}{4}$ x $side^2$

Example:

The perimeter of a rectangle is 130cm. If the breadth of the rectangle is 30cm, find its length. Also, find the area of the rectangle.

Solution:

Perimeter of the rectangle = 2 x (l+b)

130 = 2 x (l+30)

$\frac{130}{2}$ = l+ 30

l = 35

Therefore, Length of the rectangle = 35cm

Area of the rectangle = l x b = 35 x 30 = 1050 cm^2