Mensuration Formulas

2D Shapes

Perimeter Formulas

- Perimeter of a Square = 4s, where s = side length
- Perimeter of a Triangle = a + b + c, where a, b, and c are triangle sides
- Perimeter of an equilateral triangle = 3a, where a = side length
- Perimeter of a rectangle = 2(l + b), where l = length and b = breadth
- Perimeter of a regular hexagon = 6s, where s= side of the hexagon
- Perimeter of a regular pentagon = 5s, where s represents the side of a pentagon

Area Formula

- Area of a Circle = Π. r^2, where r = radius of the circle
- Area of a Square = 4. s^2, where s = side of the square
- Area of a Rectangle = l x b, where l = length and b = breadth
- Area of a Trapezium = height × (sum of parallel sides)/2
- Area of a Rhombus = (1/2) × d1 × d2; where d1 and d2 are the two diagonals of the rhombus
- Area of an equilateral triangle = $s^2(\sqrt{3}/4)$, where s = side of the equilateral triangle

- Area of a regular hexagon = $(3 \times \sqrt{3} \times a^2)/2$

3D Shapes

Area Formulas

- Surface area of Cuboid = 2(lb + bh + hl); where l, b and h represent the length, breadth and height of the cuboid.
- Surface area of Cube = $6s^2$; where s represents the side of the cube.
- Surface area of cylinder = $2\Pi r(r + h)$; where h represents the height and r represents the radius of the cylinder.
- Surface Area of a Cone = $\Pi r(r + l)$
- Curved Surface Area of a Cone = Πrl
- Curved Surface Area of a Cylinder = $2\Pi rh$

Volume Formulas

- Volume of Cuboid = $l \times b \times h$; where l, b and h represent the length, breadth and height of the cuboid.
- Volume of Cube = s^3; where s represents the side of the cube.
- Volume of Cylinder = $\Pi r^2 h$; where h represents the height and r represents the radius of the cylinder.
- Volume of a Hollow Cylinder = $\Pi. h(R^2 - r^2)$, where R = outer radius, r = inner radius
- Volume of a normal square pyramid = $(1/3) \times h \times s^2$, where s = length of one of the sides of a square base and h is the height of the pyramid