Square Formulas

$$Perimeter\ of\ a\ square = 4a$$
$$Area\ of\ a\ square = a^2$$
$$Diagonal\ of\ a\ Square = a\sqrt{2}$$

Where a is the side of the square.

Rectangle Formulas

$$Perimeter\ of\ a\ Rectangle = 2(l+b)$$
$$Area\ of\ a\ Rectangle = l*b$$
$$Diagonal\ of\ a\ Rectangle = \sqrt{l^2 + b^2}$$

Where l is the length of the rectangle and b is the breadth of the rectangle

Circle Formulas

$$Diameter\ of\ circle(d) = 2r$$
$$Circumference\ of\ circle(C) = 2\pi r$$
$$Area\ of\ circle(A) = \pi r^2$$

Where r is the radius of the circle, d is the diameter of the circle and c is the circumference of the circle.

Triangle Formulas

$$Perimeter\ of\ a\ triangle = a+b+c$$
$$Area\ of\ a\ triangle = \frac{1}{2}bh$$

Where b is the base of the triangle and h is the height of the triangle.

Cylinder Formulas

$$Surface\ area\ of\ a\ cylinder = 2\pi r(r+h)$$
$$Volume\ of\ a\ cylinder = \pi r^2 h$$

Where r is the radius of the circular base of the cylinder and h is the height of the parallel face of the cylinder.

Sphere Formulas

$$Diameter\ of\ a\ sphere = 2r$$
$$Circumference\ of\ a\ sphere = 2\pi r$$
$$Surface\ area\ of\ a\ sphere = 4\pi r^2$$
$$Volume\ of\ a\ sphere = \frac{4}{3}\pi r^3$$

Where r is the radius of the sphere

Cone Formulas

$$Slant\ height\ of\ cone(s) = \sqrt{r^2 + h^2}$$
$$Volume\ of\ cone = \frac{1}{3}\pi r^2 h$$
$$Curved\ surface\ area\ of\ cone = \pi rs$$
$$Total\ surface\ area\ of\ cone = \pi r(s + r)$$

Where r is the radius of cone, h is the height of cone and s is the slant height of the cone.

Density Formulas

Density is calculated using the below formula. It is represented by 'rho'.

$$\rho = \frac{Mass}{Volume}$$

Weight Density formula is given by

$$\rho = \frac{Weight}{Volume}$$

The Density is expressed in Kg/L.

Force Formula

In general, the formula for force is given by

$$F = m \times a$$

Where m = mass, a = acceleration. It is expressed in Newton (N) or Kgm/s^2.

Acceleration a is given by

$$a = \frac{v}{t}$$

Where v = Velocity and t = time taken

So Force can be given as

$$F = \frac{mv}{t}$$