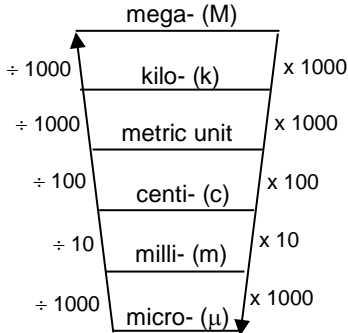


Metric Units / Perimeter, Area, Volume and Surface Area Formulas

Basic Metric Units

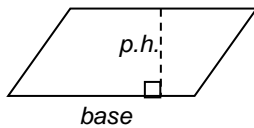
Quantity	Name	Abbrev
Length	metre	m
Mass	gram	g
Capacity	litre	L
Time	second	s
Current	ampere	A
Temperature	Celsius	⁰ C

Metric Conversion Ladder



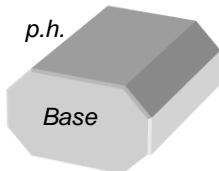
To convert areas: square the conversion factor
 To convert volumes: cube the conversion factor

Parallelogram



$$\text{Area} = \text{Base} \times \text{Perpendicular Height}$$

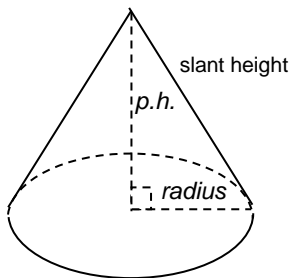
Prism



$$\text{Volume} = \text{Area of Base} \times \text{Perpendicular Height}$$

Surface Area = Sum of areas of all surfaces

Cone

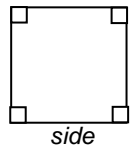


$$\text{Volume} = \frac{1}{3} \times \pi \times \text{Radius} \times \text{Radius} \times \text{Perpendicular Height}$$

$$\text{Area of Curved Surface} = \pi \times \text{Radius} \times \text{Slant Height}$$

$$\text{Area of Base} = \pi \times \text{Radius} \times \text{Radius}$$

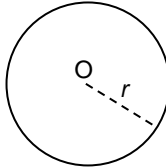
Square



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

$$\text{Area} = \text{Side} \times \text{Side}$$

Circle

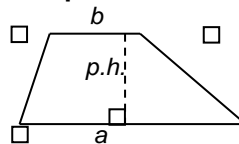


$$\text{Diameter} = 2 \times \text{Radius}$$

$$\text{Circumference} = \pi \times \text{Diameter}$$

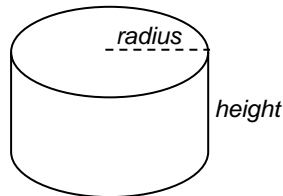
$$\text{Area} = \pi \times \text{Radius} \times \text{Radius}$$

Trapezium



$$\text{Area} = \frac{\text{Perpendicular Height} \times (a + b)}{2}$$

Cylinder

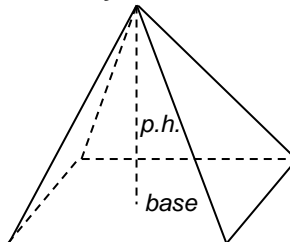


$$\text{Volume} = \pi \times \text{Radius} \times \text{Radius} \times \text{Height}$$

$$\text{Area of Curved Surface} = 2 \times \pi \times \text{Radius} \times \text{Height}$$

$$\text{Area of Base} = \pi \times \text{Radius} \times \text{Radius}$$

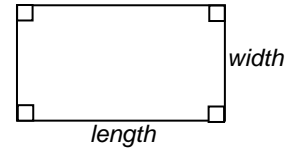
Pyramid



$$\text{Volume} = \frac{1}{3} \times \text{Area of Base} \times \text{Perpendicular Height}$$

Surface Area = Sum of areas of all sides

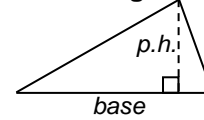
Rectangle



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

$$\text{Area} = \text{Length} \times \text{Width}$$

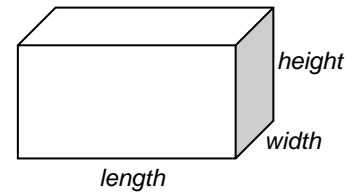
Triangle



$$\text{Perimeter} = \text{sum of sides}$$

$$\text{Area} = \frac{\text{Base} \times \text{Perpendicular Height}}{2}$$

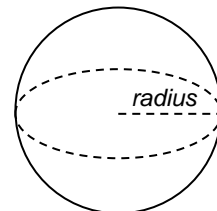
Rectangular Prism



$$\text{Volume} = \text{Length} \times \text{Width} \times \text{Height}$$

Surface Area = Sum of areas of all surfaces

Sphere



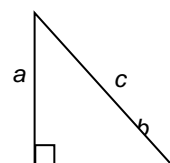
$$\text{Volume} = \frac{4}{3} \times \pi \times \text{radius} \times \text{radius} \times \text{radius}$$

$$\text{Surface Area} = 4 \times \pi \times \text{radius} \times \text{radius}$$

Pythagoras' Theorem

For every right-angled triangle with legs a and b and hypotenuse c ,

$$c^2 = a^2 + b^2$$



In words,

"The square on the hypotenuse equals the sum of the squares of the other two sides."