

Formula Sheet – Grade 7 Math

Common Abbreviations:

Kilometre = km
Metre = m
Centimetre = cm
Millimeter = mm
Tonne (metric ton) = t
Gram = g
Litre = L
Millilitre = mL

Metric Conversions:

1 km = 1000 m
1 m = 100 cm
1 cm = 10 mm

Mass (Weight)

1 t = 1000 kg
1 kg = 1000 g

Volume

1 L = 1000 mL

Formulas:

Rectangles

Area = length x width OR $A = l \times w$ OR $A = lw$

Parallelogram

Area = base x height OR $A = b \times h$ OR $A = bh$

Triangle

Area = $\frac{\text{base} \times \text{height}}{2}$ OR $A = \frac{1}{2} b \times h$ OR $A = \frac{bh}{2}$

Circles

Definitions

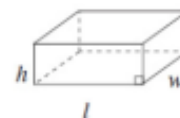
- Radius is the distance from the outside of the circle to the center.
- Diameter is the distance across the widest part of the circle through the center.
- Circumference is the distance around the circle.
- π is a symbol that represents pi. Pi is an irrational number that cannot be represented as a fraction. When calculating pi use the number 3.14 but keep in mind this is only an approximation.

Circumference $2\pi r$. (r means radius)

Area $A = \pi \times r \times r$ OR $A = \pi r^2$ (Remember, when a number (or variable) is multiplied by itself we write it as r^2 which is read as "r squared". The small number 2 is called an exponent so $r \times r$ is the same as r^2 .)

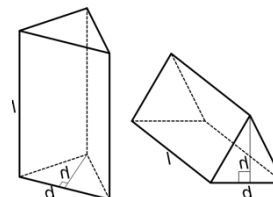
Rectangular Prism

Volume = width x length x height OR $V = w \times l \times h$ OR $V = \text{area of base} \times \text{height}$

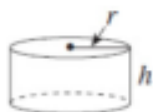


Triangular Prism

Volume = Area of base x length = $(\frac{1}{2} \times b \times h \times l)$ OR $\frac{bh}{2} \times l$ OR $\frac{bhl}{2}$



Cylinder



Volume = Area of base x height
Since the Area of the base is πr^2
you could also say that:

Volume = pi x radius x radius x height OR $V = \pi r^2 h$