

# The metric system

Dario Zelasko  
Brown Matthew

Metric system is an internationally agreed decimal system of measurement.

Prefixes	Symbols	Sub multiples
Tera	T	$10^{12}$ ← amount of zeros
Giga	G	$10^9$
Mega	M	$10^6$
Kilo	K	$10^3$
hecto	h	$10^2$
deka	da	10
deci	d	$10^{-1}$
Centi	c	$10^{-2}$
Milli	m	$10^{-3}$
Micro	$\mu$	$10^{-6}$
Nano	n	$10^{-9}$
Pico	p	$10^{-12}$
Femto	f	$10^{-15}$
Atto	a	$10^{-18}$

Ex 1  $6g = \underline{\quad} mg$

there are 1000 mg in a gram

to convert g to mg we move the decimal points 3 places to the right

6000

of multiply by 1000  $(6)(1000) = 6000.$

$6g = 6000. mg$

# Conversions

Millimeter  $\rightarrow$  centimeter  $\rightarrow$  meter  $\rightarrow$  kilometer

distances

milligram  $\rightarrow$  gram  $\rightarrow$  kilogram

mass

milliliter  $\rightarrow$  liter  $\rightarrow$  kiloliter

Volume

seconds  $\rightarrow$  minutes  $\rightarrow$  hours  $\rightarrow$  day  $\rightarrow$  week  $\rightarrow$  month  $\rightarrow$  year

time

$$5 \text{ min} \rightarrow \text{sec} = \frac{5 \text{ min} | 60 \text{ s}}{1 \text{ min}} = 300 \text{ s}$$

$$5 \text{ km} \rightarrow \text{meter} = \frac{5 \text{ km} | 1000 \text{ m}}{1 \text{ km}} = 5000 \text{ m}$$

$$1000 \text{ gram} \rightarrow \text{kg} = \frac{1000 \text{ g} | 1 \text{ kg}}{1000 \text{ g}} = 1 \text{ kg}$$

$$75 \text{ km/hr} \rightarrow \text{m/s} = \frac{75 \text{ km} | 1000 \text{ m} | 1 \text{ hr}}{1 \text{ hr} | 1 \text{ kg} | 60 \text{ min} | 60 \text{ s}} = 20.8 \text{ m/s}$$

$$55 \text{ L} \rightarrow \text{kL} = \frac{55 \text{ L} | 1 \text{ kL}}{1000 \text{ L}} = 0.055 \text{ kL}$$