

Unit conversion by prefixes

Examples:

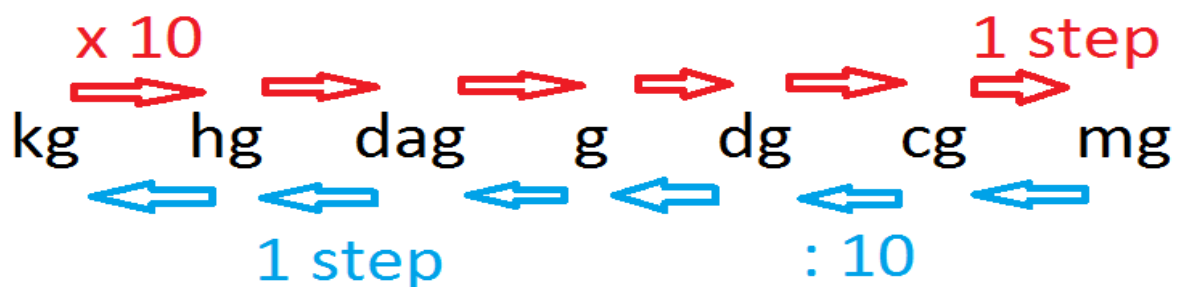
$$1 \text{ kg} = 1000 \times 1 \text{ g} = 1000 \text{ g}$$

$$5 \text{ mV} = 0,001 \times 5 \text{ V} = 0,005 \text{ V}$$

Metric prefixes in everyday use			
Text	Symbol	Factor	Power
exa	E	1 000 000 000 000 000 000	10^{18}
peta	P	1 000 000 000 000 000	10^{15}
tera	T	1 000 000 000 000	10^{12}
giga	G	1 000 000 000	10^9
mega	M	1 000 000	10^6
kilo	k	1 000	10^3
hecto	h	100	10^2
deca	da	10	10^1
(none)	(none)	1	10^0
deci	d	0.1	10^{-1}
centi	c	0.01	10^{-2}
milli	m	0.001	10^{-3}
micro	μ	0.000 001	10^{-6}
nano	n	0.000 000 001	10^{-9}
pico	p	0.000 000 000 001	10^{-12}
femto	f	0.000 000 000 000 001	10^{-15}
atto	a	0.000 000 000 000 000 001	10^{-18}

Conversions can also be done by using the following scheme:

Figure 1: prefixes, source:
https://en.wikipedia.org/wiki/Metric_prefix



For example:

$$12 \text{ g} = 12 \times 10 \times 10 \times 10 \text{ mg} = 12\,000 \text{ mg} \text{ (The decimal point moves 3 steps)}$$

$$750\,000 \text{ mm} = 750\,000 / 1\,000\,000 \text{ km} = 0,75 \text{ km} \text{ (The decimal point moves 6 steps)}$$