

Conversion Factors You Need to Know

Length	2.54 cm = 1 inch (exact)
Mass	1 kg = 2.2 lbs (not exact)
Time	60 sec = 1 min; 60 min = 1 hr; 24 hr = 1 day; 365 day = 1 year (all exact)
Temperature	K temp = add 273.15 to °C temp (not exact) Fahrenheit is useless; don't worry about it.
Count	(coming soon)
Volume	1 cm ³ = 1 mL (exact)

giga	G	x 1,000,000,000	x 10 ⁹
mega	M	x 1,000,000	x 10 ⁶
kilo	k	x 1,000	x 10 ³
deci	d	x 0.1	x 10 ⁻¹
centi	c	x 0.01	x 10 ⁻²
milli	m	x 0.001	x 10 ⁻³
micro	μ	x 0.000001	x 10 ⁻⁶
nano	n	x 0.000000001	x 10 ⁻⁹
pico	p	x 0.000000000001	x 10 ⁻¹²
femto	f	x 0.000000000000001	x 10 ⁻¹⁵

Mega & micro are both six (3+3)

nine nano

fifteen femto

Examples

kilo means "x1000" or "x10³"

$$1 \text{ kg} = 1 \text{ x1000 g} = 1000 \text{ g}$$

$$2 \text{ kg} = 2 \text{ x1000 g} = 2000 \text{ g}$$

micro means "x10⁻⁶"

$$1 \text{ μs} = 1 \text{ x10}^{-6} \text{ s} = 10^{-6} \text{ s}$$

$$7.3 \text{ μs} = 7.3 \text{ x10}^{-6} \text{ s} = 7.3 \text{ x10}^{-6} \text{ s}$$

milli means "x10⁻³"

$$1 \text{ mm} = 1 \text{ x10}^{-3} \text{ m} = 10^{-3} \text{ m}$$

$$2.43 \text{ x10}^5 \text{ mm} = 2.43 \text{ x10}^5 \text{ x10}^{-3} \text{ m} = 2.43 \text{ x10}^2 \text{ m}$$