

SI Units (International System of Units)

Length = meters

Mass = grams (really kilograms)

Time = seconds

Volume = liters

Temperature: $^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$

$\text{K} = ^{\circ}\text{C} + 273$

<u>Multipliers</u>	<u>Example with meters:</u>	(**Same for grams, seconds & liters and any other units!)		
exa (E)	1 Em = 1 X10 ¹⁸ m			
peta (P)	1 Pm = 1 X10 ¹⁵ m			
tera (T)	1 Tm = 1 X10 ¹² m			
giga (G)	1 Gm = 1 X10 ⁹ m			
mega (M)	1 Mm = 1 X10 ⁶ m	1 Mg = 1 X10 ⁶ g	1 Ms = 1 X10 ⁶ s	1 Ml = 1 X10 ⁶ l
**kilo (k)	1 km = 1 X10³ m	1 kg = 1 X10³ g	1 ks = 1 X10³ s	1 kl = 1 X10³ l
**deci (d)	1 dm = 1 X10⁻¹ m	1 dg = 1 X10⁻¹ g	1 ds = 1 X10⁻¹ s	1 dl = 1 X10⁻¹ l
**centi (c)	1 cm = 1 X10⁻² m	1 cg = 1 X10⁻² g	1 cs = 1 X10⁻² s	1 cl = 1 X10⁻² l
**milli (m)	1 mm = 1 X10⁻³ m	1 mg = 1 X10⁻³ g	1 ms = 1 X10⁻³ s	1 ml = 1 X10⁻³ l
micro (μ)	1 μm = 1 X10 ⁻⁶ m	1 μg = 1 X10 ⁻⁶ g	1 μs = 1 X10 ⁻⁶ s	1 μl = 1 X10 ⁻⁶ l
nano (n)	1 nm = 1 X10 ⁻⁹ m	1 ng = 1 X10 ⁻⁹ g	1 ns = 1 X10 ⁻⁹ s	1 nl = 1 X10 ⁻⁹ l
pico (p)	1 pm = 1 X10 ⁻¹² m	1 pg = 1 X10 ⁻¹² g	1 ps = 1 X10 ⁻¹² s	1 pl = 1 X10 ⁻¹² l
femto (f)	1 fm = 1 X10 ⁻¹⁵ m			
atto (a)	1 am = 1 X10 ⁻¹⁸ m			

Length: 1 m = 39.37 in 2.54 cm = 1 in
1 km = 0.621 mile 1 mile = 5280 ft

Volume: **** 1 L = 1 dm³ and 1 ml = 1 cm³**
1 L = 1.06 qt 1 gal = 3.773 L 1 gal = 4 qt

Mass: 1kg = 2.205 lb 1 lb = 16 oz

Gases

Standard Atmospheric Pressure = 14.7 psi = 101325 Pa = 1013.25 millibars = 1 atm = 760 mm Hg* = 760 torr* *equivalent
(at sea level)

Standard Temperature = 273 K 1 kPa = 1 X10³ Pa

Energy

1 kJ = 1 X10³ J

101.3 J = 1 L•atm