

Units

This international system of units is based on the following five units:

1. metre
2. kilogram
3. second
4. ampere
5. kelvin

Other SI units are defined in terms of these basic units.

You also need to know the following prefixes:

G	Giga	10^9	one thousand million
M	Mega	10^6	one million
k	kilo	10^3	one thousand
m	milli	10^{-3}	one thousandth
μ	mu	10^{-6}	one millionth
n	nano	10^{-9}	one thousandth of a millionth
p	pico	10^{-12}	one millionth of a millionth

Each prefix can go before any SI unit. For example:

1 pF	= 1 picofarad	= 1×10^{-12} farads	= 1×10^{-12} F
1 ns	= 1 nanosecond	= 1×10^{-9} seconds	= 1×10^{-9} s
1 μ m	= 1 micrometre	= 1×10^{-6} metres	= 1×10^{-6} m
1 mA	= 1 milliamp	= 1×10^{-3} amps	= 1×10^{-3} A
1 kV	= 1 kilovolt	= 1×10^3 volts	= 1×10^3 V
1 MJ	= 1 megajoule	= 1×10^6 joules	= 1×10^6 J
1 GHz	= 1 gigahertz	= 1×10^9 hertz	= 1×10^9 Hz

When you are trying numerical problems always make sure that you use the SI unit of each quantity given - this guarantees that the quantity you are calculating will be in its SI unit.

Be aware!

The kilogram is the SI unit for mass - do not change kilograms to grams.