

International System of Units and Their Prefixes

The following SI units and their prefixes may be found at (for example)

<http://en.wikipedia.org/wiki/SI#Units>

The international system of units consists of a set of units together with a set of **prefixes**. The units of SI can be divided into two subsets. There are seven **base units**. Each of these base units is nominally dimensionally independent. From these seven base units several other units are derived.

SI base units		
Name	Symbol	Quantity
metre	m	length
kilogram	kg	mass
second	s	time
ampere	A	electric current
kelvin	K	thermodynamic temperature
mole	mol	amount of substance
candela	cd	luminous intensity

A **prefix** may be added to a unit to produce a multiple of the original unit. All multiples are integer powers of ten. For example, *kilo-* denotes a multiple of a thousand and *milli-* denotes a multiple of a thousandth; hence there are one thousand millimetres to the metre and one thousand metres to the kilometre. The **prefixes are never combined**: a millionth of a kilogram is a *milligram* not a *microkilogram*.

Standard prefixes for the SI units of measure

Multiples	Name		<u>deca</u> =	<u>hecto</u> =	<u>kilo-</u>	<u>mega-</u>	<u>giga-</u>	<u>tera-</u>	<u>peta-</u>	<u>exa-</u>	<u>zetta-</u>	<u>yotta-</u>
	Symbol		da	h	k	M	G	T	P	E	Z	Y
	Factor	10^0	10^1	10^2	10^3	10^6	10^9	10^{12}	10^{15}	10^{18}	10^{21}	10^{24}
Subdivisions	Name		<u>deci-</u>	<u>centi-</u>	<u>milli</u> =	<u>micro</u> =	<u>nano</u> =	<u>pico</u> =	<u>femto</u> =	<u>atto</u> =	<u>zepto</u> =	<u>yocto</u> =
	Symbol		d	c	m	μ	n	p	f	a	z	y
	Factor	10^0	10^{-1}	10^{-2}	10^{-3}	10^{-6}	10^{-9}	10^{-12}	10^{-15}	10^{-18}	10^{-21}	10^{-24}