

SI Units

SI is the most commonly used system of units in the world. It is sometimes incorrectly referred to as the metric system. SI stands for the French phrase *Système International d'Unités*.

The SI system of units defines **seven basic units**. All other units can be derived from these basic units. The basic units are:

Property	Name	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric Current	ampere	A
Temperature	kelvin	K
Amount of Substance	mole	mol
Light Intensity	candela	cd

Scientists use a prefix in front of an SI unit to indicate its order of magnitude. For example the following three are the same:

0.000000000000001 m

1×10^{-15} m

1 fm

Which one would you prefer to write?

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