



Addendum #1: Scientific Notation Prefixes

Measuring with Powers of 10: All systems of weights and measures, metric and non-metric, are linked through a network of international agreements supporting the International System of Units (SI). For units that are larger or smaller than a base unit a prefix is used to indicate the number of 10s or 1/10s a unit of measurement is multiplied by.

Examples of prefixes:

$10 \times 10 \times 10 = 10^3$ or kilo

$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 = 10^9$ or giga

$1/10 \times 1/10 \times 1/10 = 10^{-3}$ or milli

$1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 = 10^{-9}$ or nano

When looking at the exponent in first column, remember that is the multiplying factor.

10^n	Prefix	Symbol	Scale	Number
10^{24}	yotta	Y	Septillion	1000000000000000000000000
10^{21}	zetta	Z	Sextillion	1000000000000000000000000
10^{18}	exa	E	Quintillion	1000000000000000000000000
10^{15}	peta	P	Quadrillion	1000000000000000000000000
10^{12}	tera	T	Trillion	1000000000000000000000000
10^9	giga	G	Billion	1000000000000000000000000
10^6	mega	M	Million	1000000000000000000000000
10^3	kilo	L	Thousand	1000
10^2	hecto	H	Hundred	100
10^1	deca	D	Ten	10
10^0	N/A	N/A	One	1
10^{-1}	deci	d	Tenth	0.1
10^{-2}	centi	c	Hundredth	0.01
10^{-3}	milli	m	Thousandth	0.001
10^{-6}	micro	μ	Millionth	0.000001
10^{-9}	nano	n	Billionth	0.000000001
10^{-12}	pico	p	Trillionth	0.000000000001
10^{-15}	femto	f	Quadrillionth	0.000000000000001
10^{-18}	atto	a	Quintillionth	0.00000000000000001
10^{-21}	zepto	z	Sextillionth	0.0000000000000000001
10^{-24}	yocto	y	Septillionth	0.000000000000000000001

Base Units of SI System
Length – meter (m)
Mass – kilogram (kg)
Time – second (s)

Can you choose the correct SI prefix for the following:

- $10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 =$

- $1. 10 \times 10 =$

- $1. 1/10 \times 1/10 =$

- $1. 1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 \times 1/10 =$

