

Name: _____

Period: _____ Date: _____

Metric System Conversion Table Astronomy

SI prefixes

1000^m	10^n	Prefix	Symbol	Since ^[1]	Short scale	Long scale	Decimal
1000^8	10^{24}	yotta	Y	1991	Septillion	Quadrillion	1 000 000 000 000 000 000 000 000
1000^7	10^{21}	zetta	Z	1991	Sextillion	Trilliard	1 000 000 000 000 000 000 000
1000^6	10^{18}	exa	E	1975	Quintillion	Trillion	1 000 000 000 000 000 000
1000^5	10^{15}	peta	P	1975	Quadrillion	Billiard	1 000 000 000 000 000
1000^4	10^{12}	tera	T	1960	Trillion	Billion	1 000 000 000 000
1000^3	10^9	giga	G	1960	Billion	Milliard	1 000 000 000
1000^2	10^6	mega	M	1960	Million		1 000 000
1000^1	10^3	kilo	k	1795	Thousand		1 000
$1000^{2/3}$	10^2	hecto	h	1795	Hundred		100
$1000^{1/3}$	10^1	deca	da	1795	Ten		10
1000^0	10^0	(none)	(none)	NA	One		1
$1000^{-1/3}$	10^{-1}	deci	d	1795	Tenth		0.1
$1000^{-2/3}$	10^{-2}	centi	c	1795	Hundredth		0.01
1000^{-1}	10^{-3}	milli	m	1795	Thousandth		0.001
1000^{-2}	10^{-6}	micro	μ	1960 ^[2]	Millionth		0.000 001
1000^{-3}	10^{-9}	nano	n	1960	Billionth	Milliardth	0.000 000 001
1000^{-4}	10^{-12}	pico	p	1960	Trillionth	Billionth	0.000 000 000 001
1000^{-5}	10^{-15}	femto	f	1964	Quadrillionth	Billiardth	0.000 000 000 000 001
1000^{-6}	10^{-18}	atto	a	1964	Quintillionth	Trillionth	0.000 000 000 000 000 001
1000^{-7}	10^{-21}	zepto	z	1991	Sextillionth	Trilliardth	0.000 000 000 000 000 000 001
1000^{-8}	10^{-24}	yocto	y	1991	Septillionth	Quadrillionth	0.000 000 000 000 000 000 000 001

1. The metric system was introduced in 1795 with six prefixes. The other dates relate to recognition by a resolution of the [CGPM](#).

2. The 1948 recognition of the [micron](#) by the CGPM was abrogated in 1967.