

Metric Prefixes Chart

SI Prefix Reference (10⁻³⁰ to 10³⁰)

International System of Units (SI) – Updated with 2022 *prefixes*

Prefix	Symbol	Power of 10	Factor
Quetta	Q	10 ³⁰	1,000,000,000,000,000,000,000,000,000,000
Ronna	R	10 ²⁷	1,000,000,000,000,000,000,000,000,000,000
Yotta	Y	10 ²⁴	1,000,000,000,000,000,000,000,000,000
Zetta	Z	10 ²¹	1,000,000,000,000,000,000,000,000,000
Exa	E	10 ¹⁸	1,000,000,000,000,000,000,000,000,000
Peta	P	10 ¹⁵	1,000,000,000,000,000,000,000,000,000
Tera	T	10 ¹²	1,000,000,000,000,000,000,000,000,000
Giga	G	10 ⁹	1,000,000,000,000,000,000,000,000,000
Mega	M	10 ⁶	1,000,000,000,000,000,000,000,000,000
Kilo	K	10 ³	1,000,000,000,000,000,000,000,000,000
Hecto	H	10 ²	100,000,000,000,000,000,000,000,000
Deca	Da	10 ¹	10,000,000,000,000,000,000,000,000
(Base Unit)	-	10 ⁰	1,000,000,000,000,000,000,000,000,000
Deci	d	10 ⁻¹	0.1,000,000,000,000,000,000,000,000,000
Centi	c	10 ⁻²	0.01,000,000,000,000,000,000,000,000,000
Milli	m	10 ⁻³	0.001,000,000,000,000,000,000,000,000,000
Micro	μ	10 ⁻⁶	0.000001,000,000,000,000,000,000,000,000,000
Nano	n	10 ⁻⁹	0.000000001,000,000,000,000,000,000,000,000,000
Pico	p	10 ⁻¹²	0.000000000001,000,000,000,000,000,000,000,000,000
Femto	f	10 ⁻¹⁵	0.000000000000001,000,000,000,000,000,000,000,000,000
Atto	a	10 ⁻¹⁸	0.000000000000000001,000,000,000,000,000,000,000,000,000
Zepto	z	10 ⁻²¹	0.000000000000000000001,000,000,000,000,000,000,000,000,000
Yocto	y	10 ⁻²⁴	0.000000000000000000000001,000,000,000,000,000,000,000,000,000
Ronto	r	10 ⁻²⁷	0.000000000000000000000000001,000,000,000,000,000,000,000,000,000
Quecto	q	10 ⁻³⁰	0.000000000000000000000000000001,000,000,000,000,000,000,000,000,000

Conversion Examples

5 km = 5 × 10³ m = 5,000 m

250 mg = 250 × 10⁻³ g = 0.25 g

Real-World Examples

Average human hair = 70 μm

Thickness of credit card = 0.76mm