

Commonly used metric system units and symbols

Quantity measured	Unit	Symbol	Relationship
Distance.	millimeter	mm	10 mm = 1 cm
	centimeter	cm	100 cm = 1 m
	meter	m	
	kilometer	km	1 km = 1000 m
Weight	milligram	mg	1000 mg = 1 g
	gram	g	
	kilogram	kg	1 kg = 1000 g
	metric ton	t	1 t = 1000 kg
Area	square meter	m ²	
	hectare	ha	1 ha = 10 000 m ²
	square kilometer	km ²	1 km ² = 100 ha
Volume	milliliter	mL	1000 mL = 1 L
	cubic centimeter	cm ³	1 cm ³ = 1 mL
	liter	L	1000 L = 1 m ³
	cubic meter	m ³	
Energy	kilojoule	kJ	
	megajoule	MJ	1 MJ = 1000 kJ

A note about usage

Although unit names are ordinary words, note that unit symbols

- are case-sensitive, so uppercase and lowercase letters have different meanings — for example, mm is the millimeter (one-thousandth of a meter), but Mm is the megameter (one million meters);
- don't have singular and plural forms — it's 1 mL, 2 mL (no “s” at the end); and
- aren't abbreviations, so there's no period after a unit symbol (unless it happens to fall at the end of a sentence).

The most commonly used metric prefixes

This table shows the most commonly used SI prefixes.

Prefix	Symbol	Factor	Numerically	Name
giga	G	10^9	1 000 000 000	billion**
mega	M	10^6	1 000 000	million
kilo	k	10^3	1 000	thousand
centi	c	10^{-2}	0.01	hundredth
milli	m	10^{-3}	0.001	thousandth
micro	μ	10^{-6}	0.000 001	millionth
nano	n	10^{-9}	0.000 000 001	billionth**

** The terms *billion*, *trillion*, etc., can be ambiguous. The terms are used here in the American English sense, but British English traditionally defined *billion* as a million million, rather than a thousand million. However, recent British usage tends to match the American meanings.