

Unit Conversion Chart

Metric and Imperial conversions for length, weight, volume, and temperature. Keep this handy for quick reference.

Length

Metric	Conversion	Imperial	Conversion
1 km	1,000 m	1 mile	5,280 ft
1 m	100 cm	1 yard	3 ft
1 cm	10 mm	1 foot	12 in

Weight / Mass

Metric	Conversion	Imperial	Conversion
1 kg	1,000 g	1 ton	2,000 lb
1 g	1,000 mg	1 lb	16 oz

Volume

Metric	Conversion	Imperial	Conversion
1 L	1,000 mL	1 gallon	4 quarts
		1 quart	2 pints
		1 pint	2 cups
		1 cup	8 fl oz

Key Cross-System Conversions

From	To	Factor
1 inch	centimeters	2.54 cm
1 kilogram	pounds	2.2 lb
1 mile	kilometers	1.6 km
1 liter	gallons	0.26 gal
1 meter	feet	3.28 ft
1 ounce	grams	28.35 g

Temperature Conversion

Fahrenheit to Celsius

$$C = (5/9) \times (F - 32)$$

$$\text{Example: } 77F = (5/9) \times (77 - 32) = (5/9) \times 45 = 25C$$

Celsius to Fahrenheit

$$F = (9/5) \times C + 32$$

$$\text{Example: } 25C = (9/5) \times 25 + 32 = 45 + 32 = 77F$$

Celsius	Fahrenheit	Reference
0	32	Water freezes
100	212	Water boils
37	98.6	Body temperature
-40	-40	Both scales meet

Metric Prefixes

Prefix	Symbol	Meaning	Example
kilo-	k	1,000	1 km = 1,000 m
hecto-	h	100	1 hL = 100 L
deca-	da	10	1 dag = 10 g
(base)	-	1	1 m, 1 g, 1 L
deci-	d	1/10	1 dm = 0.1 m
centi-	c	1/100	1 cm = 0.01 m
milli-	m	1/1,000	1 mm = 0.001 m

Conversion Method

Step 1: Write the conversion factor as a fraction (e.g., 2.54 cm / 1 in)

Step 2: Multiply so the unwanted unit cancels out

Example: 5 in x (2.54 cm / 1 in) = 12.7 cm

Remember "King Henry Died By Drinking Chocolate Milk" for metric prefixes: Kilo, Hecto, Deca, Base, Deci, Centi, Milli.