

Measurement	Unit and Abbreviation	Metric Equivalent	Metric to English conversion factor	English to metric conversion factor
Length	1 kilometer (km)	= 1000 (10 <sup>3</sup> ) meters	1 km = 0.62 mile	1 mile = 1.61 km
	1 meter (m)	= 100 (10 <sup>2</sup> ) centimeters = 1000 millimeters	1 m = 1.09 yards 1 m = 3.28 feet 1 m = 39.37 inches	1 yard = 0.914 m 1 foot = 0.3048 m
	1 centimeter (cm)	= 0.01 (10 <sup>-2</sup> ) meter	1 cm = 0.394 inch	1 foot = 30.48 cm 1 inch = 2.54 cm
	1 millimeter (mm)	= 0.001 (10 <sup>-3</sup> ) meter	1 mm = 0.039 inch	
	1 micrometer (μm)	= 0.000001 (10 <sup>-6</sup> ) meter		
	1 nanometer (nm)	= 0.000000001 (10 <sup>-9</sup> ) meter		
	1 picometer	= 0.000000000001 (10 <sup>-12</sup> ) meter		
Area	1 square meter (m <sup>2</sup> )	= 10,000 square centimeters	1 m <sup>2</sup> = 1.1960 square yards 1 m <sup>2</sup> = 10.764 square feet	1 square yard = 0.8361 m <sup>2</sup>
	1 square centimeter (cm <sup>2</sup> )	= 100 square millimeters	1 cm <sup>2</sup> = 0.155 square inch	1 square inch = 6.4516 cm <sup>2</sup>
Mass	1 metric ton (t)	= 1000 kilograms	1 t = 1.102 ton	1 ton = 0.907t
	1 kilogram (kg)	= 1000 grams	1 kg = 2.205 pounds	1 pound = 0.4536 kg
	1 gram (g)	= 1000 milligrams	1 g = 0.0353 ounce 1 g = 15.432 grains	1 ounce = 28.35 g
	1 milligram (mg)	= 0.001 gram	1 mg = approx. 0.015 grain	
	1 microgram (μg)	= 0.000001 gram		
Volume (solid)	1 cubic meter (m <sup>3</sup> )	= 1,000,000 cubic centimeters (cm <sup>3</sup> or cc)	1 m <sup>3</sup> = 1.3080 cubic yards 1 m <sup>3</sup> = 35.315 cubic ft.	1 cubic yard = 0.7646 m <sup>3</sup> 1 cubic foot = 0.0283 m <sup>3</sup>
	1 cubic centimeter (cm <sup>3</sup> or cc)	= 0.000001 cubic meter = 1 cubic millimeter	1 cm <sup>3</sup> = 0.0610 cubic inch	1 cubic inch = 16.387 cm <sup>3</sup>
	1 cubic millimeter (mm <sup>3</sup> )	= 0.000000001 cubic meter		
Volume (liquids and gases)	1 kiloliter (kL)	= 1000 liters	1 kL = 264.17 gallons	1 gallon = 3.785 L
	1 liter (L)	= 1000 milliliters	1 L = 0.264 gallons 1 L = 1.057 quarts	1 quart = 0.946 L
	1 milliliter (mL)	= 0.001 liter = 1 cubic centimeter	1 mL = 0.034 fluid ounce 1 mL = .203 tsp. 1 mL = approx. 15-16 drops (gft.)	1 quart = 946 mL 1 pint = 473 mL 1 fluid ounce = 29.57 mL 1 teaspoon = 4.93 mL
	1 microliter (μL)	= 0.000001 liter		
Time	1 second (s)	= 1/60 minute		
	1 millisecond (ms)	= 0.001 second		
Temperature	Degrees Celsius ( C )		F = 2/5 C + 32	C = 5/9 ( F - 32)