

Conversion Factor Sheet

Time: 1 min = 60 sec 1 hour = 60 min = 3600 sec 1 day = 24 hours = 86400 sec
1 week = 7 days 1 year = 52 weeks = 12 months = 365 days 100 years = 1 century

Metric Units

Length: 1 picometer (pm) = 1×10^{-12} meters
1 nanometer (nm) = 1×10^{-9} meters
1 micrometer (μm) = 1×10^{-6} meters
1 millimeter (mm) = 0.001 meters
1 centimeter (cm) = 0.01 meters
1 decimeter (dm) = 0.1 meters
1 dekameter (dkm) = 10 meters
1 hectometer (hm) = 100 meters
1 kilometer (km) = 1000 meters
1 megameter (Mm) = 1×10^6 meters
1 gigameter (Gm) = 1×10^9 meters

Mass: 1 picogram (pg) = 1×10^{-12} gram
1 nanogram (ng) = 1×10^{-9} gram
1 microgram (μg) = 1×10^{-6} gram
1 milligram (mg) = 0.001 gram
1 centigram (cg) = 0.01 gram
1 decigram (dg) = 0.1 gram
1 dekagram (dkg) = 10 grams
1 hectogram (hg) = 100 grams
1 kilogram (kg) = 1000 grams
1 megagram (Mg) = 1×10^6 grams
1 gigagram (Gg) = 1×10^9 grams
1 metric ton (t) = 1000 kilograms

Volume: 1 picoliter (pL) = 1×10^{-12} liter
1 nanoliter (nL) = 1×10^{-9} liter
1 microliter (μL) = 1×10^{-6} liter
1 milliliter (mL) = 0.001 liter
1 centiliter (cL) = 0.01 liter
1 deciliter (dL) = 0.1 liter
1 dekaliter (dkL) = 10 liters
1 hectoliter (hL) = 100 liters
1 kiloliter (kL) = 1000 liters
1 megaliter (ML) = 1×10^6 liters
1 gigaliter (GL) = 1×10^9 liters

Volume/Mass for water: $1 \text{ cm}^3 = 1 \text{ mL} = 1 \text{ gram}$ $1000 \text{ cm}^3 = 1 \text{ L} = 1 \text{ kilogram}$

Mole Conversions: 1 mole = 6.02×10^{23} particles 1 mole = _____ g (from the Periodic Table)

Pressure Conversions: 1 atm = 760 mm Hg = 760 torr = 14.7 psi = 101,325 Pa = 101.325 kPa

Energy Conversions: 1 cal = 4.184 J 1 (food) Cal = 1000 cal

British System

Length: 12 inches = 1 foot 3 ft = 1 yard = 36 inches 1 mile = 5,280 ft 1 mile = 1,760 yards
1 in = 2.54 cm 39.37 in = 1 meter 1 mi = 1.61 km

Weight: 16 ounces (oz) = 1 pound (lb) 2,000 pounds = 1 ton (T) 2200 lb = 1 metric ton (t) 2.2 lb = 1 kg

Volume: 1 cup (c) = 8 fluid ounces (oz)
1 pint (pt) = 2 cups
1 quart (qt) = 2 pints
1 gallon (gal) = 4 quarts
1 gallon = 3.78 liters

