

**LENGTHS**

1 meter	= 3.281 ft
1 cm	= 0.3937 inch
1 in	= 2.54 centimeter
1 mile	= 5280 ft
1 angstrom (Å)	= $10^{-10}$ meter
1 light-year	= $5.878 \times 10^{12}$ mile
1 foot	= 12 inches

**MASSES**

1 kilogram	= 2.20 lb
1 lb	= 0.45359 kilogram = 16 ounces
1 ton	= 2000 lb = 907.185 kilograms
1 ounce	= 28.3 grams
1 <b>tro</b> y ounce	= 31.10347 gram
1 amu	= $1.6606 \times 10^{-24}$ gram

**VOLUMES**

1 liter	= $1 \times 10^{-3}$ m <sup>3</sup> = 1.0567 qt
1 milliliter	= 1 cm <sup>3</sup>
1 gallon	= 4 qt = 8 pint = 3.785 liter
1 quart (qt)	= 32 <b>fluid</b> ounce = 0.946 liter
1 fluid ounce	= 29.57 mL

**TEMPERATURES**

°F	= $\frac{9}{5}^{\circ}\text{C} + 32$
°C	= $\frac{5}{9} (^{\circ}\text{F} - 32)$
K	= °C + 273

**PRESSURE**

1 atm	= 760 mmHg = 14.7 psi
1 torr	= 1 mmHg

**ENERGY**

1 cal	= 4.184 J
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**MISCELLANEOUS**

1 mol	= $6.022 \times 10^{23}$ particles
pH	= $-\log[\text{H}^+]$
[H <sup>+</sup> ]	= $10^{-\text{pH}}$
pH + pOH	= 14

**TIME**

1 hour	= 3600 seconds
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**CONSTANTS**

1 mol gas	= 22.4 L gas (@STP)
K <sub>w</sub>	= $1.0 \times 10^{-14}$
R	= $\frac{0.0821 \text{ atm} \cdot \text{L}}{\text{mol} \cdot \text{K}}$