Unit Conversions

Length

1 ft = 12 in (exact) | 1 yd = 3 ft (exact) | 1 mi = 5280 ft (exact)
1 mi = 1.609 km | 1 in = 2.54 cm (exact)

Mass*

1 lb = 16 oz (exact) | 1 lb = 0.4536 kg | 1 u = 1.66054×10^{-27} kg

Volume

1 gal = 4 qt (exact) | 1 mL = 1 cm^3 (exact) | 1 gal = 3.785 L
1 L = 1.057 qt

Energy

1 cal = 4.184 J (exact) | 1 Cal = 1000 cal (exact)

Pressure

1 atm = 760 Torr (exact) | 1 Torr = 1 mmHg (exact) **
1 atm = 101,325 Pa (exact) | 1 bar = 1×10^5 Pa (exact)

Time

1 day = 24 hr (exact) | 1 min = 60 sec (exact)

*In the English system, the pound is defined with respect to the kilogram at the standard value for acceleration, 9.80665 m/s^2 .

**The relationship is not exact but for our purposes the difference is negligible.

Lide, David R., Ed., Handbook of Chemistry and Physics, 83rd ed.; CRC Press: Boca Raton FL, 2002, 1-34 to 1-45.

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