Unit Conversion and Some Important Constants – thermofluids.net
(A more comprehensive resource is the Unit Converter daemon)

Length/Velocity:

1 Foot = 0.3048 m; 1 inch = 25.4 mm 1 mile = 1.61 km
1 mile = 5280 Feet 1 mile (nautical) = 1.85 km
1 mile/hour = 0.447 m/s 1 km/hour = 0.2777 m/s

Volume/Flow Rate:

1 Cubic Feet = 0.02832 m3 1 Gallon = 3.785 l 1 l = 1x10-3 m3
1 Gallon = 0.1336 ft3 1 in3 = 1.6387x10-5 m3 1 Quart = 0.9464 l
1 Quart = 0.25 Gallon 1 Ounce = 29.574 ml 1 Pint = 0.473 l
1 Gallon/hour = 3.711x10-5 ft3/s 1 G/hr=1.0514x10-6 m3/s

Mass:

1 Slug = 14.594 kg 1 lbm = 0.4536 kg 1 Ton (long) = 1016 kg
1 Ounce = 28.35 g

Force:

1 Pound-Force = 4.448 N 1 kg-Force = 9.81 N 1 Ounce-Force = 0.278 N
1 Dyne = 10 mN 1 KIP = 4448.2 N

Pressure:

1 psi = 6.895 kPa 1 bar = 100 kPa 1 inch of Hg = 3.374 kPa
1 inch of water = 0.2486 kPa 1 mm of Hg = 0.1333 kPa 1 Torr = 1 mm of Hg

Energy: (1 kW-Hr cost US$0.10 and 1 Therm (CH4) US$0.50 cents in the year 1995)

1 BTU = 1.055 kJ 1 Erg = 1 mJ 1 Therm = 105.5 MJ (59¢)
1 Cal(food) = 4.187 kJ 1 calorie = 4.187 J 1 kW-Hr = 3.6 MJ (10¢)
1 kg(kilo)Calorie = 4.187 kJ (in USA Calorie means a Food Calorie = 4.187 kJ)
1 Horsepower-Hour = 2.6845 MJ 1 Ft-Pound force = 1.3558 J
1 BTU/ft3 = 0.0373 MJ/m3 1 BTU/lbm = 2.3258 kJ/kg 1 cal/g = 4.187 kJ/kg
1 BTU/Hour = 0.2931 W 1 Horsepower = 0.7457 kW
1 BTU=778 ft-lbf/lbmol-R 1 Ton of Refrigeration = 3.517 kW
1 MJ of Nat. Gas = 0.56¢ 1 MJ of Electricity = 2.78¢ (5 times pricier than gas)

Temperature:

$^{\circ}C = 5*(^{\circ}F-32)/9$ $^{\circ}R = ^{\circ}F+460$ $K = ^{\circ}C+273$

Viscosity:

1 Centipoise = 1 mPa.s (absolute) 1 Centistoke = 1 mm2/s (kinematic)

----------CONSTANTS (within reasonable accuracy)----------

Quantity	**SI**	**English**
Standard temperature	25°C (298K),	60°F (520R)
Standard pressure of air	101 kPa	14.7 psia
g	9.81 m/s2,	32.2 ft/s2
R_bar	8.314 kJ/kg.Kmol	1545.3 ft-lbf/lbmol-R
Mol wt (kg/kmol):	Air=29; CO2=44; N2=28; O2=32;	
C_p,air	1.005 kJ/kg.K,	0.24 BTU/lbm-R
kair = CP/Cv	1.4	
Density of water	103 kg/m^3	62.4 lbm/ft^3
Density of air*	1.2 kg/m^3	0.075 lbm/ft^3
SG of Hg	13.6	13.6
Kinematic viscosity of water	1.22x10-5 ft2/s	1.13x10-6 m2/s
Enthalpy of water at 100 °C	419-2676 kJ/kg	180-1150 Btu/lb