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| Conversions | | |  |
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| Length  1 m = 100 cm  1 m = 3.28 ft  1 km = 1000 m  1 cm = 10 mm  1 in = 2.54 cm  1 mi = 1609 m  1 mi = 5280 ft  1 Å = 10-10 m  1 nm = 10-9 m  1 µm = 10-6 m  1 ly = 9.45 x 1015 m | | Volume  1 mL = 1 cm3  1 L = 1000 mL  1 gal = 3.79 L  1 m3 = 1000 L  1 in3 = 16.39 cm3  1 m3 = 35.31 ft3 | Mass  1 kg = 1000 g  1 g = 1000 mg  1 mg = 1000 μg  1 kg = 2.21 lb \*  1 amu (u) = 1.66 x 10-27 kg  1 T = 2000 lbs  1 g = 0.0353 ounce (oz)  \*Not actually a conversion but equivalent at the surface of the earth. |
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| Force  1 lb = 4.45 N  1 T = 2000 lb  1 dyn = 10 µN | | Pressure  1 Pa = 1 N/m2  1 atm = 1.013 x 105 Pa  1 atm = 760 mm Hg  1 atm = 14.7 psi  1 atm = 760 torr  1 mbar = 100 Pa | Time  1 day(d) = 24 hours (h)  1 h = 60 min = 3600 s  1 s = 1000 ms  1 yr = 365 days |
| Area  1 m2 = 104 cm2  1 ft2 = 144 in2  1 in2 = 6.45 cm2  1 cm2 = 100 mm2 | | Power, Work and Energy  746 w = 1 hp  4.184 J = 1 cal  1 BTU = 1055 J | **Volume Formulas**  Cylinder  Sphere  Rectangular Prism V = wlh  million = 106  billion = 109  trillion = 1012  TF = 1.8TC +32  TK = TC + 273 |
| Prefixes  tera, T = 1012  giga, G = 109  mega, M = 106  kilo, k = 103  centi, c = 10-2  milli, m = 10-3  micro, µ = 10-6  nano, n = 10-9  pico, p = 10-12  femto, f = 10-15 |  | Constants  Melectron = 9.11 x 10-31 kg  Mproton = 1.67 x 10-27 kg  Mearth = 5.98 x 1024 kg  Msun = 1.99 x 1030 kg  Speed of light, c = 3.0 x 108 m/s  Avogadro’s # = 6.02 x 1023/mole |