English to Metric Conversions (continued)

FORCE

To convert from	to	multiply by
dyne	newton (N)	1.000 000*E -05
kilogram-force	newton (N)	9.806 650*E+00
kip	newton (N)	4.448 222 E+03
ounce-force (avoirdupois)	newton (N)	2.780 139 E -01
pound-force (lbf avoirdupois)	newton (N)	4.448 222 E+00
poundal	newton (N)	1.382 550 E -01

MASS

To convert from	to	multiply by
carat (metric)	kilogram (kg)	2.000 000* E-04
grain	kilogram (kg)	6.479 891*E -05
gram	kilogram (kg)	1.000 000*E -03
hundredweight (long)	kilogram (kg)	5.080 235 E+01
hundredweight (short)	kilogram (kg)	4.535 924 E+01
kilogram-force-second^2/meter (mass)	kilogram (kg)	9.806 650*E+01
kilogram-mass	kilogram (kg)	1.000 000*E+00
ounce-mass (avoirdupois)	kilogram (kg)	2.834 952 E -02
ounce-mass (troy or apothecary)	kilogram (kg)	3.110 348 E -02
pennyweight	kilogram (kg)	1.555 174 E -03
pound-mass (lbm avoirdupois)	kilogram (kg)	4.535 924 E -01
pound-mass (troy or apothecary)	kilogram (kg)	3.732 417 E -01
slug	kilogram (kg)	1.459 390 E+01
ton (assay)	kilogram (kg)	2.916 667 E -02
ton (long, 2240 lbm)	kilogram (kg)	1.016 047 E+03
ton (metric)	kilogram (kg)	1.000 000*E+03
ton (short,2000 lbm)	kilogram (kg)	9.071 847 E+02

MASS/AREA

To convert from	to	multiply by
pound-mass/foot^2	kilogram/meter^2 (kg/m^2)	4.882 428* E+00

HEAT

To convert from	to	multiply by
Btu* in./s • ft^2 • °F (k, thermal conductivity)	watt/meter-kelvin (W/m·K)	5.192 204 E+02
Btu* in./h • ft^2 • °F (k, thermal conductivity)	watt/meter-kelvin (W/m•K)	1.442 279 E -01
Btu* /ft^2	joule/meter2 (J/m^2)	1.135 653 E+04
Btu* h • ft^2 • °F (C, thermal conductance)	Watt/meter^2-kelvin (W/m^2•K)	5.678 263 E+00
Btu* /pound-mass	joule/kilogram (J/kg)	2.326 000*E+03
Btu* lbm • °F (c, heat capacity)	joule/kilogram-kelvin (J/kg•K)	4.186 800*E+03
Btu* /s • ft^2 • °F	Watt/meter^2-kelvin (W/m^2•K)	2.044 175 E+04
cal * /g	joule/kilogram (J/kg)	4.186 800*E+03
cal */g• °C	joule/kilogram-kelvin (J/kg•K)	4.186 800*E+03
clo	kelvin-meter^2/watt (K•m^2/W)	2.003 712 E -01
deg F • h • ft^2/Btu* (R, thermal resistance)	kelvin-meter^2/watt (K•m^2/W)	1.761 102 E -01
ft^2/h (thermal diffusivity)	meter^2/second (m^2/s)	2.580 640*E -05

MASS/VOLUME (Includes Density and Mass Capacity)

To convert from	to	multiply by
grain (lbm avoirdupois/7000)/gallon (US liquid)	kilogram/meter^3 (kg/m^3)	1.711 806 E-02
gram/centimeter^3	kilogram/meter3 (kg/m^3)	1.000 000*E+03
ounce (avoirdupois) /gallon (UK liquid)	kilogram/meter^3 (kg/m^3)	6.236 021 E+00
ounce (avoirdupois) /gallon (US liquid)	kilogram/meter^3 (kg/m^3)	7.489 152 E+00
ounce (avoirdupois) (mass) /inch^3	kilogram/meter3 (kg/m^3)	1.729 994 E+03
pound-mass/foot^3	kilogram/meter3 (kg/m^3)	1.601 846 E+01
pound-mass/inch^3	kilogram/meter3 (kg/m^3)	2.767 990 E+04
pound-mass/gallon (UK liquid)	kilogram/meter^3 (kg/m^3)	9.977 633 E+01
pound-mass/gallon (US liquid)	kilogram/meter^3 (kg/m^3)	1.198 264 E+02
slug/foot^3	kilogram/meter3 (kg/m^3)	5.153 788 E+02
ton (long, mass)/yard^3	kilogram/meter3 (kg/m^3)	1.328 939 E+03

LENGTH

To convert from	to	multiply by
angstrom	meter (m)	1.000 000*E -10
astronomicalunit	meter (m)	1.495 98 E+11
caliber (inch)	meter (m)	2.540 000*E -02
fathom	meter (m)	1.828 800*E+00
fermi (femtometer)	meter (m)	1.000 000*E -15
foot	meter (m)	3.048 000*E -01
inch	meter (m)	2.540 000*E -02
league (international nautical)	meter (m)	5.556 000*E+03
league(statute)	meter (m)	4.828 032*E+03
league (U.K. nautical)	meter (m)	5.559 552*E+03
light year	meter (m)	9.460 55 E+15
microinch	meter (m)	2.540 000*E -08
micron	meter (m)	1.000 000*E -06
mil	meter (m)	2.540 000*E -05
mile (international nautical)	meter (m)	1.852 000*E+03
mile (U.K. nautical)	meter (m)	1.853 184*E+03
mile (U.S. nautical)	meter (m)	1.852 000*E+03
mile (U.S. statute)	meter (m)	1.609 344*E+03
parsec	meter (m)	3.083 74 E+16
rod	meter (m)	5.029 200*E+00
statute mile (U.S.)	meter (m)	1.609 344*E+03
yard	meter (m)	9.144 000*E -01

TEMPERATURE

To convert from	to	multiply by
degreeCelsius	kelvin (k)	tK = t°C + 273.15
degree Fahrenheit	kelvin (k)	tK = (t°F + 459.67)/1.8
degreeRankine	kelvin (k)	tK = t°R/1.8
degree Fahrenheit	degree Celsius	5°C = (t°F - 32)/1.8

TIME

To convert from	to	multiply by
day (sidereal)	second(s)	8.616 409 E+04
hour (sidereal)	second(s)	3.590 170 E+03
minute (sidereal)	second(s)	5.983 617 E+01
second (sidereal)	second(s)	9.972 696 E -01
year (sidereal)	second(s)	3.155 815 E+07

** Exact - not rounded*