

SCIENTIFIC CONVERSION CHART  
 (Taken from various sources)  
 by Don Rittner

TO USE: Take the term from the first column that you want to change into the second and multiply by the number shown.

TO CONVERT	INTO	MULTIPLY BY
abecoulombs	statcoulombs	$2.998 \times 10^{10}$ 10th power
acres	sq chains (Gunter's)	10.
acres	sq rods	160.
acres	square links (Gunter's)	$1 \times 10^5$ 5th power
acres	hectares or sq. hectometers	.4047
acres	sq ft	43,560.0
acres	sq meters	4,047.
acres	sq miles	$1.562 \times 10^{-3}$ 3rd power
acres	sq yd	4,840.
acre-feet	cu ft	43,560.0
acre-feet	gallons	$3.259 \times 10^5$ 5th power
amperes/sq cm	amps/sq in	6.452
amperes/sq cm	amps/sq meter	$10^4$ 4th power
amperes/sq in	amps/sq cm	0.1550
amperes/sq in	amps/sq meter	1,550.0
amperes/sq meter	amps/sq cm	$10^{-4}$ 4th power
amperes/sq meter	amps/sq in	$6.452 \times 10^{-4}$ 4th power
ampere-hours	coulombs	3,600.0
ampere-hours	faradays	0.03731
ampere-turns	gilberts	1.257
ampere-turns/cm	amp-turns/in	2.540
ampere-turns/cm	amp-turns/meter	100.0
ampere-turns/cm	gilberts/cm	1.257
ampere-turns/in	amp-turns/cm	0.3937
ampere-turns/in	amp-turns/meter	39.37
ampere-turns/in	gilberts/cm	0.4950
ampere-turns/meter	amp-turns/cm	0.01
ampere-turns/meter	amp-turns/in	0.0254
ampere-turns/meter	gilberts/cm	0.01257
angstrom unit	inches	$3937 \times 10^{-9}$ 9th power
angstrom unit	meters	$1 \times 10^{-10}$ 10th power
angstrom unit	microns or (mu)	$1 \times 10^{-4}$ 4th power
ares	acres (US)	.02471
ares	sq yd	119.60
ares	acres	0.02471
ares	sq meters	100.0
astronomical units	kilometers	$1.495 \times 10^8$ 8th power
atmospheres	ton/sq in	.007348
atmospheres	cm of mercury	76.0
atmospheres	ft of water (at 4 degrees C)	33.90
atmospheres	in of mercury (at 0 degrees C)	29.92
atmospheres	kg/sq cm	1.0333
atmospheres	kg/sq meter	10,332.
atmospheres	lb/sq in	14.70
atmospheres	tons/sq ft	1.058
B		
barrels (US, dry)	cu in	7056.
barrels (US, dry)	quarts (dry)	105.0
barrels (US, liq)	gallons	31.5

barrels (oil)	gallons (oil)	42.0
bars	atmospheres	0.9869
bars	dynes/sq cm	10 6th power
bars	kg/sq meter	1.020 x 10 4th power
bars	lb/sq ft	2,089.
bars	lb/sq in	14.50
baryes	dynes/sq cm	1.000
bolts (US cloth)	meters	36.576
Btu	liter-atmosphere	10.409
Btu	ergs	1.0550 x 10 10th power
Btu	foot-lb	778.3
Btu	gram-calories	252.0
Btu	horsepower-hr	3.931 x 10-4th power
Btu	joules	1,054.8
Btu	kilogram-calories	0.2520
Btu	kilogram-meters	107.5
Btu	kilowatt-hr	2.928 x 10-4th power
Btu/hr	foot-lb/sec	0.2162
But/hr	gram-cal/sec	0.0700
Btu/hr	horsepower-hr	3.929 x 10-4th power
Btu/hr	watts	0.2931
Btu/min	foot-lb/sec	12.96
Btu/min	horsepower	0.02356
Btu/min	kilowatts	0.01757
Btu/min	watts	17.57
Btu/sq ft/min	watts/sq in	0.1221
bucket (Br dry)	cubic cm	1.818 x 10 4th power
bushels	cu ft	1.2445
bushels	cu in	2,150.4
bushels	cu meters	0.03524
bushels	liters	35.24
bushels	pecks	4.0
bushels	pints (dry)	64.0
bushels	quarts (dry)	32.0
 C		
calories, gram (mean)	Btu (mean)	3.9685 x 10-3rd power
candle/sq cm	lamberts	3.142
candle/sq inch	lamberts	.4870
centares (centiares)	sq meters	1.0
centigrade	Fahrenheit	(C degrees x 9/5)+32
centigrams	grams	0.01
centiliter	ounces (US fluid)	.3382
centiliter	cu in	.6103
centiliter	drams	2.705
centiliter	liters	0.01
centimeters	feet	3.281 x 10-2nd power
centimeters	inches	0.3937
centimeters	kilometers	10-5th power
centimeters	meters	0.01
centimeters	miles	6.214 x 10-6th power
centimeters	millimeters	10.0
centimeters	mils	393.7
centimeters	yards	1.094 x 10-2nd power
centimeters-dynes	cm-grams	1.020 x 10-3rd power
centimeters-dynes	meter-kg	1.020 x 10-8th power
centimeters-dynes	lb-ft	7.376 x 10-8th power
centimeter-grams	cm-dynes	980.7

centimeter-grams	meter-kg	10-5th power
centimeter-grams	lb-ft	7.233 x 10-5th power
centimeters of mercury	atmospheres	0.01316
centimeters of mercury	ft of water	0.4461
centimeters of mercury	kg/sq meter	136.0
centimeters of mercury	lb/sq ft	27.85
centimeters of mercury	lb/sq in	0.1934
centimeters/sec	ft/min	1.1969
centimeters/sec	ft/sec	0.03281
centimeters/sec	kilometers/hr	0.036
centimeters/sec	knots	0.1943
centimeters/sec	meters/min	0.6
centimeters/sec	miles/hr	0.02237
centimeters/sec	miles/min	3.728 x 10-4th power
centimeters/sec/sec	ft/sec/sec	0.03281
centimeters/sec/sec	km/hr/sec	0.036
centimeters/sec/sec	meters/sec/sec	0.01
centimeters/sec/sec	miles/hr/sec	0.02237
chain	inches	792.00
chain	meters	20.12
chains	yards	22.00
(surveyor's or Gunter's)		
circular mils	sq cm	5.067 x 10-6th power
circular mils	sq mils	0.7854
circular mils	sq in	7.854 x 10-7th power
circumference	radians	6.283
cords	cord ft	8
cord feet	cu ft	16
coulomb	statcoulombs	2.998 x 10 9th power
coulombs	faradays	1.036 x 10-5th power
coulombs/sq cm	coulombs/sq in	64.52
coulombs/sq cm	coulombs/sq meter	10 4th power
coulombs/sq in	coulombs/sq cm	0.1550
coulombs/sq in	coulombs/sq meter	1,550.
coulombs/sq meter	coulombs/sq cm	10-4th power
coulombs/sq meter	coulombs/sq in	6.452 x 10-4th power
cubic centimeters	cu ft	3.531 x 10-5th power
cubic centimeters	cu in	0.06102
cubic centimeters	cu meters	10-4th power
cubic centimeters	cu yards	1.308 x 10-4th power
cubic centimeters	gallons (US lig)	2.642 x 10-4th power
cubic centimeters	liters	0.001
cubic centimeters	pints (US lig)	2.113 x 10-3rd power
cubic centimeters	quarts (US lig)	1.057 x 10-3rd power
cubic feet	bushels (dry)	0.8036
cubic feet	cu cm	28,320.0
cubic feet	cu in	1,728.0
cubic feet	cu meters	0.02832
cubic feet	cu yd	0.03704
cubic feet	gallons (US lig)	7.48052
cubic feet	liters	28.32
cubic feet	pints (US lig)	59.84
cubic feet	quarts (US lig)	29.92
cubic feet/min	cu cm/sec	472.0
cubic feet/min	gallons/sec	0.1247
cubic feet/min	liters/sec	0.4720
cubic feet/min	1 b of water/min	62.43
cubic feet/sec	million gals/day	0.646317

cubic feet/sec	gallons/min	448.831
cubic inches	cu cm	16.39
cubic inches	cu ft	5.787 x 10-4th power
cubic inches	cu meters	1.639 x 10-5th power
cubic inches	cu yard	2.143 x 10-5th power
cubic inches	gallons	4.329 x 10-3rd power
cubic inches	liters	0.01639
cubic inches	mil/ft	1.061 x 10 5th power
cubic inches	pints (US liq)	0.03463
cubic inches	quarts (US liq)	0.01732
cubic meters	bushels (dry)	28.38
cubic meters	cu cm	10 6th power
cubic meters	cu ft	35.31
cubic meters	cu in	61,023.0
cubic meters	cu yard	1.308
cubic meters	gallons (US liq)	264.2
cubic meters	liters	1,000.0
cubic meters	pints (US liq)	2,113.0
cubic meters	quarts (US liq)	1,057.
cubic yards	cu cm	7.646 x 10 5th power
cubic yards	cu ft	27.0
cubic yards	cu in	46,656.0
cubic yards	cu meters	0.7646
cubic yards	gallons (US liq)	202.0
cubic yards	liters	764.6
cubic yards	pints (US liq)	1,615.9
cubic yards	quarts (US liq)	807.9
cubic yards/min	cubic ft/sec	0.45
cubic yards/min	gallons/sec	3.367
cubic yards/min	liters/sec	12.74

D		
Dalton	gram	1.650 x 10-24th power
days	seconds	86,400.0
decigrams	grams	0.1
deciliters	liters	0.1
decimeters	meters	0.1
degrees (angle)	quadrants	0.01111
degrees (angle)	radians	0.01745
degrees (angle)	seconds	3,600.0
degrees/sec	radians/sec	0.01745
degrees/sec	revolutions/min	0.1667
degrees/sec	revolutions/sec	2.778 x 10-3rd power
dekagrams	grams	10.0
dekaliters	liters	10.0
dekameters	meters	10.0
drams (apoth or troy)	ounces (avoirdupois)	0.1371429
drams (apoth or troy)	ounces (troy)	0.125
drams (US fl or apoth)	cubic cm	3.6967
drams	grams	1.7718
drams	grains	27.3437
drams	ounces	0.0625
dyne/cm	erg/sq mm	.01
dyne/sq cm	atmospheres	9.869 x 10-7th power
dyne/sq cm	inch of mercury at 0 degrees C	2.953 x 10-5th power
dyne/sq cm	inch of water at 4 degrees C	4.015 x 10-4th power
dynes/sq cm	bars	10-6th power
dynes	grams	1.020 x 10-3rd power

dynes	joules/cm	10-7th power
dynes	joules/meter (newtons)	10-5th power
dynes	kilograms	$1.020 \times 10^{-6}$ th power
dynes	poundals	$7.233 \times 10^{-5}$ th power
dynes	pounds	$2.248 \times 10^{-6}$ th power
E		
ell	cm	114.30
ell	inches	45.
em, pica	inches	.167
em, pica	cm	.4233
erg/sec	dyne - cm/sec	1.000
ergs	Btu	$9.480 \times 10^{-11}$ th power
ergs	dyne-centimeters	1.0
ergs	foot-lb	$7.367 \times 10^{-8}$ th power
ergs	gram-calories	$0.2389 \times 10^{-7}$ th power
ergs	gram-cm	$1.020 \times 10^{-3}$ rd power
ergs	horsepower-hr	$3.7250 \times 10^{-14}$ th power
ergs	joules	10-7th power
ergs	kg-calories	$2.389 \times 10^{-11}$ th power
ergs	kg-meters	$1.020 \times 10^{-8}$ th power
ergs	kilowatt-hr	$0.2778 \times 10^{-13}$ th power
ergs	watt-hr	$0.2778 \times 10^{-10}$ th power
ergs/sec	Btu/min	$5.668 \times 10^{-9}$ th power
ergs/sec	ft-lb/min	$4.427 \times 10^{-6}$ th power
ergs/sec	ft-lb/sec	$7.3756 \times 10^{-8}$ th power
ergs/sec	horsepower	$1.341 \times 10^{-10}$ th power
ergs/sec	kg-calories/min	$1.433 \times 10^{-9}$ th power
ergs/sec	kilowatts	10-10th power
F		
farads	microfarads	10 6th power
faradays/sec	ampere (absolute)	$9.6500 \times 10^{-4}$ th power
faradays	ampere-hr	26.80
faradays	coulombs	$9.649 \times 10^{-4}$ th power
fathoms	meters	1.828804
fathoms	feet	6.0
feet	centimeters	30.48
feet	kilometers	$3.048 \times 10^{-4}$ th power
feet	meters	0.3048
feet	miles (naut)	$1.645 \times 10^{-4}$ th power
feet	miles (stat)	$1.894 \times 10^{-4}$ th power
feet	millimeters	304.8
feet	mils	$1.2 \times 10^{-4}$ th power
feet of water	atmospheres	0.02950
feet of water	in of mercury	0.8826
feet of water	kg/sq cm	0.03048
feet of water	kg/sq meter	304.8
feet of water	lb/sq ft	62.43
feet of water	lb/sq in	0.4335
feet/min	cm/sec	0.5080
feet/min	feet/sec	0.01667
feet/min	km/hr	0.01829
feet/min	meters/min	0.3048
feet/min	miles/hr	0.01136
feet/sec	cm/sec	30.48
feet/sec	km/hr	1.097
feet/sec	knots	0.5921

feet/sec	meters/min	18.29
feet/sec	miles/hr	0.6818
feet/sec	miles/min	0.01136
feet/sec/sec	cm/sec/sec	30.48
feet/sec/sec	km/hr/sec	1.097
feet/sec/sec	meters/sec/sec	0.3048
feet/sec/sec	miles/hr/sec	0.6818
feet/100 feet	percent grade	1.0
foot-candles	lumens/sq meter	10.764
foot-pounds	Btu	$1.286 \times 10^{-3}$ rd power
foot-pounds	ergs	$1.356 \times 10^{-7}$ th power
foot-pounds	gram-calories	0.3238
foot-pounds	hp-hr	$5.050 \times 10^{-7}$ th power
foot-pounds	joules	1.356
foot-pounds	kg-calories	$3.24 \times 10^{-4}$ th power
foot-pounds	kg-meters	0.1383
foot-pounds	kilowatt-hr	$3.766 \times 10^{-7}$ th power
foot-pounds/min	Btu/min	$1.286 \times 10^{-3}$ rd power
foot-pounds/min	foot-lb/sec	0.01667
foot-pounds/min	horsepower	$3.030 \times 10^{-5}$ th power
foot-pounds/min	kg-calories/min	$3.24 \times 10^{-4}$ th power
foot-pounds/min	kilowatts	$2.260 \times 10^{-5}$ th power
foot-pounds/sec	Btu/hr	4.6263
foot-pounds/sec	Btu/min	0.07717
foot-pounds/sec	horsepower	$1.818 \times 10^{-3}$ rd power
foot-pounds/sec	kg-calories/min	0.01945
foot-pounds/sec	kilowatts	$1.356 \times 10^{-3}$ rd power
furlongs	miles (US)	0.125
furlongs	rods	40.0
furlongs	feet	660.0

## G

gallons	cu cm	3,785.0
gallons	cu ft	0.1337
gallons	cu in	231.0
gallons	cu meters	$3.785 \times 10^{-3}$ rd power
gallons	cu yd	$4.951 \times 10^{-3}$ rd power
gallons	liters	3.785
gallons (lig Br Imp)	gallons (US lig)	1.20095
gallons (US)	gallons (Imp)	0.83267
gallons of water	lb of water	8.3453
gallons/min	cu ft/sec	$2.228 \times 10^{-3}$ rd power
gallons/min	liters/sec	0.06308
gallons/min	cu ft/hr	8.0208
gausses	lines/sq in	6.452
gausses	webers/sq cm	10-8th power
gausses	webers/sq in	$6.452 \times 10^{-8}$ th power
gausses	webers/sq meter	10-4th power
gilberts	ampere-turns	0.7958
gilberts/cm	amp-turns/cm	0.7958
gilberts/cm	amp-turns/in	2.021
gilberts/cm	amp-turns/meter	79.58
gills (Br)	cu cm	142.07
gills	liters	0.1183
gills	pints (lig)	0.25
grade	radian	.01571
grains	drams (avoirdupois)	0.03657143

grains (troy)	grains (avdp)	1.0
grains (troy)	grams	0.06480
grains (troy)	ounces (avdp)	$2.0833 \times 10^{-3}$ rd power
grains (troy)	pennyweight (troy)	0.04167
grains/US gal	parts/million	17.118
grains/US gal	lb/million gal	142.86
grains/Imp gal	parts/million	14.286
grams	dynes	980.7
grams	grains	15.43
grams	joules/cm	$9.807 \times 10^{-5}$ th power
grams	joules/meter (newtons)	$9.807 \times 10^{-3}$ rd power
grams	kilograms	0.001
grams	milligrams	1,000.
grams	ounces (avdp)	0.03527
grams	ounces (troy)	0.03215
grams	poundals	0.07093
grams	pounds	$2.205 \times 10^{-3}$ rd power
grams/cm	lb/in	$5.600 \times 10^{-3}$ rd power
grams/cu cm	lb/cu ft	62.43
grams/cu cm	lb/cu in	0.03613
grams/cu cm	lb/mil-ft	$3.405 \times 10^{-7}$ th power
grams/liter	grains/gal	58.417
grams/liter	lb/1,000 gal	8.345
grams/liter	lb/cu ft	0.062427
grams/liter	parts/million	1,000.0
grams/sq cm	lb/sq ft	2.0481
gram-calories	Btu	$3.9683 \times 10^{-3}$ rd power
gram-calories	ergs	$4.1868 \times 10^{-7}$ th power
gram-calories	ft-lb	3.0880
gram-calories	horsepower-hr	$1.5596 \times 10^{-6}$ th power
gram-calories	kilowatt-hr	$1.1630 \times 10^{-6}$ th power
gram-calories	watt-hr	$1.1630 \times 10^{-3}$ rd power
gram-calories/sec	Btu/hr	14.286
gram-centimeters	Btu	$9.297 \times 10^{-8}$ th power
gram-centimeters	ergs	980.7
gram-centimeters	joules	$9.807 \times 10^{-5}$ th power
gram-centimeters	kg-cal	$2.343 \times 10^{-8}$ th power
gram-centimeters	kg-meters	$10^{-5}$ th power

H		
hand	cm	10.16
hectares	acres	2.471
hectares	sq ft	$1.076 \times 10^{-5}$ th power
hectograms	grams	100.0
hectoliters	liters	100.0
hectometers	meters	100.0
hectowatts	watts	100.0
henries	millihenries	1,000.0
hogsheads (Br)	cu ft	10.114
hogsheads (US)	cu ft	8.42184
hogsheads (US)	gallons (US)	63
horsepower	Btu/min	42.44
horsepower	ft-lb/min	33,000.
horsepower	ft-lb/sec	550.0
horsepower (metric) (542.5 ft-lb/sec)	horsepower (550 ft-lb/sec)	0.9863
horsepower (550 ft-lb/sec)	horsepower (metric) (542.5 ft-lb/sec)	1.014

horsepower	kg-calories/min	10.68
horsepower	kilowatts	0.7457
horsepower	watts	745.7
horsepower (boiler)	Btu/hr	33,479.
horsepower (boiler)	kilowatts	9.803
horsepower-hours	Btu	2,547.
horsepower-hours	ergs	2.6845 x 10 13th power
horsepower-hours	ft-lb	1.98 x 10 6th power
horsepower-hours	gm-cal	641,190.
horsepower-hours	joules	2.684 x 10 6th power
horsepower-hours	kg-calories	641.1
horsepower-hours	kg-meters	2.737 x 10 5th power
horsepower-hours	kilowatt-hr	0.7457
hours	days	4.167 x 10-2nd power
hours	weeks	5.952 x 10-3rd power
hundredweights (long)	pounds	112.
hundredweights (long)	tons (long)	0.05
hundredweights (short)	ounces (avoirdupois)	1600.
hundredweights (short)	pounds	100.
hundredweights (short)	tons (metric)	0.0453592
hundredweights (short)	tons (long)	0.0446429

## I

inches	centimeters	2.540
inches	meters	2.540 x 10-2nd power
inches	miles	1.578 x 10-5th power
inches	millimeters	25.40
inches	mils	1,000.0
inches	yards	2.778 x 10-2nd power
inches of mercury	atmospheres	0.03342
inches of mercury	ft of water	1.133
inches of mercury	kg/sq cm	0.03453
inches of mercury	kg/sq meter	345.3
inches of mercury	lb/sq ft	70.73
inches of mercury	lb/sq in	0.4912
inches of water	atmospheres	2.458 x 10-3rd power
(All inches of water are at 4 degrees C)		
inches of water	in of mercury	0.07355
inches of water	kg/sq cm	2.540 x 10-3rd power
inches of water	oz/sq in	0.5781
inches of water	lb/sq ft	5.204
inches of water	lb/sq in	0.03613
international ampere	ampere (abs)	.9998
international volt	volts (abs)	1.0003
international volt	joules	9.654 x 10 4th power

## J

joules	Btu	9.480 x 10-4th power
joules	ergs	10 7th power
joules	ft-lb	0.7376
joules	kg-calories	2.389 x 10-4th power
joules	kg-meters	0.1020
joules	watt-hr	2.778 x 10-4th power
joules/cm	grams	1.020 x 10 4th power
joules/cm	dynes	10 7th power
joules/cm	joules/meter (newtons)	100.0
joules/cm	poundals	723.3
joules/cm	pounds	22.48

K		
kilograms	dynes	980,665.
kilograms	grams	1,000.0
kilograms	joules/cm	0.09807
kilograms	joules/meter (newtons)	9.807
kilograms	poundals	70.93
kilograms	pounds	2.205
kilograms	tons (long)	9.842 x 10-4th power
kilograms	tons (short)	1.102 x 10-3rd power
kilograms/cu meter	gm/cu cm	0.001
kilograms/cu meter	lb/cu ft	0.06243
kilograms/cu meter	lb/cu in	3.3613 x 10-5th power
kilograms/cu meter	lb/mil-foot	3.405 x 10-10th power
kilograms/meter	lb/ft	0.6720
kilogram/sq cm	dynes	980,665.
kilograms/sq cm	atmospheres	0.9678
kilograms/sq cm	ft of water	32.81
kilograms/sq cm	in of mercury	28.96
kilograms/sq cm	lb/sq ft	2,048.
kilograms/sq cm	lb/sq in	14.22
kilograms/sq meter	atmospheres	9.678 x 10-5th power
kilograms/sq meter	bars	98.07 x 10-6th power
kilograms/sq meter	ft of water	3.281 x 10-3rd power
kilograms/sq meter	in of mercury	2.896 x 10-3rd power
kilograms/sq meter	lb/sq ft	0.2048
kilograms/sq meter	lb/sq in	1.422 x 10-3rd power
kilograms/sq mm	kg/sq meter	10 6th power
kilogram-calories	Btu	3.968
kilogram-calories	ft-lb	3,088.
kilogram-calories	hp-hr	1.560 x 10-3rd power
kilogram-calories	joules	4,186.
kilogram-calories	kg-meters	426.9
kilogram-calories	kilojoules	4.186
kilogram-calories	kilowatt-hr	1.163 x 10-3rd power
kilogram meters	Btu	9.294 x 10-3rd power
kilogram meters	ergs	9.804 x 10 7th power
kilogram meters	ft-lb	7.233
kilogram meters	joules	9.804
kilogram meters	kg-calories	2.342 x 10-3rd power
kilogram meters	kilowatt-hr	2.723 x 10-6th power
kilolines	maxwells	1,000.0
kiloliters	liters	1,000.0
kilometers	centimeters	10 5th power
kilometers	feet	3,281.
kilometers	inches	3.937 x 10 4th power
kilometers	meters	1,000.0
kilometers	miles	0.6214
kilometers	millimeters	10 6th power
kilometers	yards	1,094.
kilometers/hr	cm/sec	27.78
kilometers/hr	ft/min	54.68
kilometers/hr	ft/sec	0.9113
kilometers/hr	knots	0.5396
kilometers/hr	meters/min	16.67
kilometers/hr	miles/hr	0.6214
kilometers/hr/sec	cm/sec/sec	27.78
kilometers/hr/sec	ft/sec/sec	0.9113

kilometers/hr/sec	meters/sec/sec	0.2778
kilometers/hr/sec	miles/hr/sec	0.6214
kilowatts	Btu/min	56.92
kilowatts	foot-lb/min	4.426 x 10 4th power
kilowatts	foot-lb/sec	737.6
kilowatts	horsepower	1.341
kilowatts	kg-calories/min	14.34
kilowatts	watts	1,000.0
kilowatt-hours	Btu	3,413.
kilowatt-hours	ergs	3.600 x 10 13th power
kilowatt-hours	ft-lb	2.665 x 10 6th power
kilowatt-hours	gram-calories	859,850.
kilowatt-hours	horsepower-hr	1.341
kilowatt-hours	joules	3.6 x 10 6th power
kilowatt-hours	kg-calories	860.5
kilowatt-hours	kg-meters	3.671 x 10 5th power
kilowatt-hours	lb of water evaporated from and at 212 degrees F.	3.53
kilowatt-hours	lb of water raised from 62 degrees to 212 degrees F.	22.75
knots	ft/hr	6,080.
knots	kilometers/hr	1.8532
knots	nautical miles/hr	1.0
knots	statute miles/hr	1.151
knots	yd/hr	2,027.
knots	ft/sec	1.689

L		
league	miles (approx.)	3.0
light year	miles	5.9 x 10 12th power
light year	kilometers	9.46091 x10 12th power
lines/sq cm	gausses	1.0
lines/sq in	gausses	0.1550
lines/sq in	webers/sq cm	1.550 x 10-9th power
lines/sq in	webers/sq in	10-8th power
lines/sq in	webers/sq meter	1.550 x 10-5th power
links (engineer's)	inches	12.0
links (surveyor's)	inches	7.92
liters	bushels (US dry)	0.02838
liters	cu cm	1,000.0
liters	cu ft	0.03531
liters	cu in	61.02
liters	cu meters	0.001
liters	cu yd	1.308 x 10-3rd power
liters	gallons (US lig)	0.2642
liters	pints (US lig)	2.113
liters	quarts (US lig)	1.057
liters/min	cu ft/sec	5.886 x 10-4th power
liters/min	gal/sec	4.403 x 10-3rd power
lumens/sq ft	foot-candles	1.0
lumen	spherical candle power	.07958
lumen	watt	.001496
lumen/sq ft	lumen/sq meter	10.76
lux	foot-candles	0.0929

M		
maxwells	kilolines	0.001

maxwells	webers	10-8th power
megalines	maxwells	10 6th power
megohms	microhms	10 12th power
megohms	ohms	10 6th power
meters	centimeters	100.0
meters	feet	3.281
meters	inches	39.37
meters	kilometers	0.001
meters	miles (naut)	$5.396 \times 10^{-4}$ th power
meters	miles (stat)	$6.214 \times 10^{-4}$ th power
meters	millimeters	1,000.0
meters	yards	1.094
meters	varas	1.179
meters/min	cm/sec	1.667
meters/min	ft/min	3.281
meters/min	ft/sec	0.05468
meters/min	km/hr	0.06
meters/min	knots	0.03238
meters/min	miles/hr	0.03728
meters/sec	feet/min	196.8
meters/sec	feet/sec	3.281
meters/sec	kilometers/hr	3.6
meters/sec	kilometers/min	0.06
meters/sec	miles/hr	2.237
meters/sec	miles/min	0.03728
meters/sec/sec	cm/sec/sec	100.0
meters/sec/sec	ft/sec/sec	3.281
meters/sec/sec	km/hr/sec	3.6
meters/sec/sec	miles/hr/sec	2.237
meter-kilograms	cm-dynes	$9.807 \times 10^{-7}$ th power
meter-kilograms	cm-gm	10 5th power
meter-kilograms	lb-ft	7.233
microfarad	farads	10-6th power
micrograms	grams	10-6th power
microhms	megohms	10-12th power
microhms	ohms	10-6th power
microliters	liters	10-6th power
microns	meters	$1 \times 10^{-6}$ th power
miles (naut)	feet	6,080.27
miles (naut)	kilometers	1.853
miles (naut)	meters	1,853.
miles (naut)	miles (statute)	1.1516
miles (naut)	yards	2,027.
miles (statute)	centimeters	$1.609 \times 10^{-5}$ th power
miles (statute)	feet	5,280.
miles (statute)	inches	$6.336 \times 10^{-4}$ th power
miles (statute)	kilometers	1.609
miles (statute)	meters	1,609.
miles (statute)	miles (naut)	0.8684
miles (statute)	yards	1,760.
miles/hr	cm/sec	44.70
miles/hr	ft/min	88.
miles/hr	ft/sec	1,467.
miles/hr	km/hr	1.609
miles/hr	km/min	0.02682
miles/hr	knots	0.8684
miles/hr	meters/min	26.82
miles/hr	miles/min	0.1667

miles/hr/sec	cm/sec/sec	44.70
miles/hr/sec	ft/sec/sec	1.467
miles/hr/sec	km/hr/sec	1.609
miles/hr/sec	meters/sec/sec	0.4470
miles/min	cm/sec	2,682.
miles/min	ft/sec	88.
miles/min	km/min	1.609
miles/min	knots/min	0.8684
miles/min	cu in	miles/hr 60.0
mil-feet		9.425 x 10-6th power
milliers		kilograms 1,000.
millimicrons	meters	1 x 10-9th power
milligrams	grains	0.01543236
milligrams	grams	0.001
milligrams/liter	parts/million	1.0
millihenries	henries	0.001
milliliters	liters	0.001
millimeters	centimeters	0.1
millimeters	feet	3.281 x 10-3rd power
millimeters	inches	0.03937
millimeters	kilometers	10-6th power
millimeters	meters	0.001
millimeters	miles	6.214 x 10-7th power
millimeters	mils	39.37
millimeters	yards	1.094 x 10-3rd power
million gals/day	cu ft/sec	1.54723
mils	centimeters	2.540 x 10-3rd power
mils	feet	8.333 x 10-5th power
mils	inches	0.001
mils	kilometers	2.540 x 10-8th power
mils	yards	2.778 x 10-5th power
Miner's inches	cu ft/min	1.5
minims (Br)	cu cm	0.059192
minims (US fl)	cu cm	0.061612
minutes (angles)	degrees	0.01667
minutes (angles)	quadrants	1.852 x 10-4th power
minutes (angles)	radians	2.909 x 10-4th power
minutes (angles)	seconds	60.0
myriagrams	kilograms	10.0
myriameters	kilometers	10.0
myriawatts	kilowatts	10.0
N		
nepers	decibels	8.686
newtons	dynes	1 x 10 5th power
O		
ohm (Int)	ohm (abs)	1.0005
ohms	megohms	10-6th power
ohms	microohms	10 6th power
ounces	drams	16.0
ounces	grains	437.5
ounces	grams	28.349527
ounces	pounds	0.0625
ounces	ounces (troy)	0.9115
ounces	tons (long)	2.790 x 10-5th power
ounces	tons (metric)	2.835 x 10-5th power
ounces (fl)	cu in	1.805

ounces (fl)	liters	0.02957
ounces (troy)	grains	480.0
ounces (troy)	grams	31.103481
ounces (troy)	ounces (avdp)	1.09714
ounces (troy)	pennyweights	(troy) 20.0
ounces (troy)	pounds (troy)	0.0833
ounce/sq in	dynes/sq cm	4309.
ounces/sq in	pounds/sq in	0.0625
 <b>P</b>		
parsecs	miles	19 x 10 12th power
parsecs	kilometers	3.084 x 10 13th power
parts/million	gr/US gal	0.0584
parts/million	gr/Imp gal	0.07016
parts/million	lb/million gal	8.345
pecks (Br)	cu in	554.6
pecks (Br)	liters	9.091901
pecks (US)	bushels	0.25
pecks (US)	cu in	537.605
pecks (US)	liters	8.809582
pecks (US)	quarts (dry)	8.
pennyweights (troy)	grains	24.0
pennyweights (troy)	ounces (troy)	0.05
pennyweights (troy)	grams	1.55517
pennyweights (troy)	pounds (troy)	4.1667 x 10-3rd power
pints (dry)	cu in	33.60
pints (liq)	cu cm	473.2
pints (liq)	cu ft	0.01671
pints (liq)	cu in	28.87
pints (liq)	cu meters	4.732 x 10-4th power
pints (liq)	cu yd	6.189 x 10-4th power
pints (liq)	gallons	0.125
pints (liq)	liters	0.4732
pints (liq)	quarts (liq)	0.5
Planck's quantum	erg-sec	6.624 x 10-27th power
poise	gm/cm sec	1.00
pounds (avdp)	ounces (troy)	14.5833
poundals	dynes	13,826.
poundals	grams	14.10
poundals	joules/cm	1.383 x 10-3rd power
poundals	joules/meter (newtons)	0.1383
poundals	kilograms	0.01410
poundals	pounds	0.03108
pounds	drams	256.
pounds	dynes	44.4823 x 10 4th power
pounds	grains	7,000.
pounds	grams	453.5924
pounds	joules/cm	0.04448
pounds	joules/meter (newtons)	4.448
pounds	kilograms	0.4536
pounds	ounces	16.0
pounds	ounces (troy)	14.5833
pounds	poundals	32.17
pounds	pounds (troy)	1.21528
pounds	tons (short)	0.0005
pounds (troy)	grains	5,760.
pounds (troy)	grams	373.24177
pounds (troy)	ounces (avdp)	13.1657

pounds (troy)	ounces (troy)	12.0
pounds (troy)	pennyweights (troy)	240.0
pounds (troy)	pounds (avdp)	0.822857
pounds (troy)	tons (long)	$3.6735 \times 10^{-4}$ th power
pounds (troy)	tons (metric)	$3.7324 \times 10^{-4}$ th power
pounds (troy)	tons (short)	$4.1143 \times 10^{-4}$ th power
pounds of water	cu ft	0.01602
pounds of water	cu in	27.68
pounds of water	gallons	0.1198
pounds of water/min	cu ft/sec	$2.670 \times 10^{-4}$ th power
pound-feet	cm-dynes	$1.356 \times 10^7$ th power
pound-feet	cm-gm	13,825.
pound-feet	meter-kg	0.1383
pounds/cu ft	gm/cm cm	0.01602
pounds/cu ft	kg/cu meter	16.02
pounds/cu ft	lb/cu in	$5.787 \times 10^{-4}$ th power
pounds/cu ft	lb/mil-foot	$5.456 \times 10^{-9}$ th power
pounds/cu in	gm/cu cm	27.68
pounds/cu in	kg/cu meter	$2.768 \times 10^4$ th power
pounds/cu in	lb/cu ft	1,728.
pounds/cu in	lb/mil-foot	$9.425 \times 10^{-6}$ th power
pounds/ft	kg/meter	1.488
pounds/in	gm/cm	178.6
pounds/mil-foot	gm/cu cm	$2.306 \times 10^6$ th power
pounds/sq ft	atmospheres	$4.725 \times 10^{-4}$ th power
pounds/sq ft	ft of water	0.01602
pounds/sq ft	in of mercury	0.01414
pounds/sq ft	kg/sq meter	4.882
pounds/sq ft	lb/sq in	$6.944 \times 10^{-3}$ rd power
pounds/sq in	atmospheres	0.06804
pounds/sq in	ft of water	2.307
pounds/sq in	in of mercury	2.036
pounds/sq in	kg/sq meter	703.1
pounds/sq in	lb/sq ft	144.0

Q		
quadrants (angle)	degrees	90.0
quadrants (angle)	minutes	5,400.0
quadrants (angle)	radians	1.571
quadrants (angle)	seconds	$3.24 \times 10^5$ th power
quarts (dry)	cu in	67.20
quarts (lig)	cu cm	946.4
quarts (lig)	cu ft	0.03342
quarts (lig)	cu in	57.75
quarts (lig)	cu meters	$9.464 \times 10^{-4}$ th power
quarts (lig)	cu yd	$1.238 \times 10^{-3}$ rd power
quarts (lig)	gallons	0.25
quarts (lig)	liters	0.9463

R		
radians	degrees	57.30
radians	minutes	3,438.
radians	quadrants	0.6366
radians	seconds	$2.063 \times 10^5$ th power
radians/sec	degrees/sec	57.30
radians/sec	rev/min	9.549
radians/sec	rev/sec	0.1592
radians/sec/sec	rev/min/min	573.0

radians/sec/sec	rev/min/sec	9.549
radians/sec/sec	rev/sec/sec	0.1592
revolutions	degrees	360.0
revolutions	quadrants	4.0
revolutions	radians	6.283
revolutions/min	degrees/sec	6.0
revolutions/min	radians/sec	0.1047
revolutions/min	rev/sec	0.01667
revolutions/min/min	radians/sec/sec	1.745 x 10-3rd power
revolutions/min/min	rev/min/sec	0.01667
revolutions/min/min	rev/sec/sec	2.778 x 10-4th power
revolutions/sec	degrees/sec	360.0
revolutions/sec	radians/sec	6.283
revolutions/sec	rev/min	60.0
revolutions/sec/sec	radians/sec/sec	6.283
revolutions/sec/sec	rev/min/min	3,600.0
revolutions/sec/sec	rev/min/sec	60.0
rods	chain (Gunter's)	.25
rods	meters	5.029
rods (surveyor's meas)	yards	5.5
rods	feet	16.5

## S

scruples	grains	20
seconds (angle)	degrees	2.778 x 10-4th power
seconds (angle)	minutes	0.01667
seconds (angle)	quadrants	3.087 x 10-6th power
seconds (angle)	radians	4.848 x 10-6th power
slug	kilogram	14.59
slug	pounds	32.17
sphere	steradians	12.57
square centimeters	circular mils	1.973 x 10 5th power
square centimeters	sq ft	1.076 x 10-3rd power
square centimeters	sq in	0.1550
square centimeters	sq meters	0.0001
square centimeters	sq miles	3.861 x 10-11th power
square centimeters	sq mm	100.0
square centimeters	sq yd	1.196 x 10-4th power
square feet	acres	2.296 x 10-5th power
square feet	circular mils	1.833 x 10 8th power
square feet	sq cm	929.0
square feet	sq in	144.0
square feet	sq meters	0.09290
square feet	sq miles	3.587 x 10-8th power
square feet	sq mm	9.290 x 10 4th power
square feet	sq yd	0.1111
square inches	circular mils	1.273 x 10 6th power
square inches	sq cm	6.452
square inches	sq ft	6.944 x 10-3rd power
square inches	sq mm	645.2
square inches	sq mils	10 6th power
square inches	sq yd	7.716 x 10-4th power
square kilometers	acres	247.1
square kilometers	sq cm	10 10th power
square kilometers	sq ft	10.76 x 10 6th power
square kilometers	sq in	1.550 x 10 9th power
square kilometers	sq meters	10 6th power
square kilometers	sq miles	0.3861

square kilometers	sq yd	1.196 x 10 6th	power
square meters	acres	2,471 x 10-4th	power
square meters	sq cm	10 4th power	
square meters	sq ft	10.76	
square meters	sq in	1,550.	
square meters	sq miles	3.861 x 10-7th	power
square meters	sq mm	10 6th power	
square meters	sq yd	1.196	
square miles	acres	640.0	
square miles	sq ft	27.88 x 10 6th	power
square miles	sq km	2.590	
square miles	sq meters	2.590 x 10 6th	power
square miles	sq yd	3.098 x 10 6th	power
square millimeters	circular mils	1,973.	
square millimeters	sq cm	0.01	
square millimeters	sq ft	1.076 x 10-5th	power
square millimeters	sq in	1.550 x 10-3rd	power
square mils	circular mils	1.273	
square mils	sq cm	6.452 x 10-6th	power
square mils	sq in	10-6th power	
square yards	acres	2.066 x 10-4th	power
square yards	sq cm	8,361.0	
square yards	sq ft	9.0	
square yards	sq in	1,296.	
square yards	sq meters	0.8361	
square yards	sq miles	3.228 x 10-7th	power
square yards	sq mm	8.361 x 10 5th	power

## T

temperature (degrees C) + 273	absolute temperature ( degrees C)	1.0
temperature (degrees C) +17.78	temperature (degrees F)	1.8
temperature (degrees F) +460	absolute temperature (degrees F)	1.0
temperature (degrees F) -32	temperature (degrees C)	5/9
tons (long)	kilograms	1,016.
tons (long)	pounds	2,240.
tons (long)	tons (short)	1.120
tons (metric)	kilograms	1,000.
tons (metric)	pounds	2,205.
tons (short)	kilograms	907.1848
tons (short)	ounces	32,000.
tons (short)	ounces (troy)	29,166.66
tons (short)	pounds	2,000.
tons (short)	pounds (troy)	2,430.56
tons (short)	tons (long)	0.89287
tons (short)	tons (metric)	0.9078
tons (short)/sq ft	kg/sq meter	9,765.
tons (short)/sq ft	lb/sq in	2,000.
tons of water/24 hr	lb of water/hr	83.333
tons of water/24 hr	gal/min	0.16643
tons of water/24 hr	cu ft/hr	1.3349

## V

volt/inch	volt/cm	.39370
volt (abs)	statvolts	.003336

W		
watts	Btu/hr	3.4129
watts	Btu/min	0.05688
watts	ergs/sec	107.
watts	ft-lb/min	44.27
watts	ft-lb/sec	0.7378
watts	horsepower	$1.341 \times 10^{-3}$ rd power
watts	horsepower (metric)	$1.360 \times 10^{-3}$ rd power
watts	kg-calories/min	0.01433
watts	kilowatts	0.001
watts (abs)	Btu (mean)/min	0.056884
watts (abs)	joules/sec	1.
watt-hours	Btu	3.413
watt-hours	ergs	$3.60 \times 10^{-10}$ th power
watt-hours	ft-lb	2,656.
watt-hours	gm-cal	859.85
watt-hours	horsepower-hr	$1.341 \times 10^{-3}$ rd power
watt-hours	kg-cal	0.8605
watt-hours	kg-meters	367.2
watt-hours	kilowatt-hr	0.001
watt (int)	watt (abs)	1.0002
webers	maxwells	10 8th power
webers	kilolines	10 5th power
webers/sq in	gausses	$1.550 \times 10^{-7}$ th power
webers/sq in	line/sq in	10 8th power
webers/sq in	webers/sq cm	0.1550
webers/sq in	webers/sq meter	1,550.
webers/sq meter	gausses	10 4th power
webers/sq meter	lines/sq in	$6.452 \times 10^{-4}$ th power
webers/sq meter	webers/sq cm	10-4th power
webers/sq meter	webers/sq in	$6.452 \times 10^{-4}$ th power

## Y

yards	centimeters	91.44
yards	kilometers	$9.144 \times 10^{-4}$ th power
yards	meters	0.9144
yards	miles (naut)	$4.934 \times 10^{-4}$ th power
yards	miles (stat)	$5.682 \times 10^{-4}$ th power
yards	millimeters	914.4

THE END

Please let me know of any additions for updates. GEnie: D.Rittner,  
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