



BASIC CONVERSIONS

VOLUME

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Acre-feet	Cu feet	43560
	Cu meters	1233.482
	Cu yards	1613.33
Cu Centimeters	Gallons (US)	3.259×10^5
	Cu feet	3.5315×10^{-5}
	Cu inches	0.06102
	Cu meters	1×10^{-6}
	Cu yards	1.308×10^{-6}
	Gallons (US liq)	0.00026
	Liters	0.00099
	Ounces (US liq)	0.03381
Cu Feet	Pints (US liq)	0.00211
	Quarts (US liq)	0.00106
	Acre-feet	2.296×10^{-5}
	Cu centimeters	28316.8
	Cu inches	1728.0
	Cu meters	0.02832
	Cu yards	0.03704
	Gallons (US liq)	7.48052
Cu Inches	Liters	28.316
	Ounces (US liq)	957.506
	Pints (US liq)	59.8442
	Quarts (US liq)	29.922
	Acre-feet	1.329×10^{-8}
	Cu centimeters	16.3871
	Cu feet	0.000579
	Cu meters	1.639×10^{-5}
Cu Meters	Cu yards	2.143×10^{-5}
	Gallons (US liq)	0.00433
	Liters	0.01639
	Ounces (US liq)	0.55411
	Pints (US liq)	0.03463
	Quarts (US liq)	0.01732
	Acre-feet	0.00081
	Cu centimeters	1×106
Cu Yards	Cu feet	35.147
	Cu inches	61023.7
	Cu yards	1.30795
	Gallons (US liq)	264.172
	Liters	999.97
	Pints (US liq)	2113.38
	Quarts (US liq)	1056.69
	Acre-feet	6.198×10^{-4}
Cu centimeters	764554.9	
Cu feet	27	
Cu inches	46656	
Cu meters	0.76455	
Gallons (US liq)	201.974	
Liters	764.553	
Quarts (US liq)	807.896	

VOLUME - continued

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Gallons (US liq)	Acre-feet	3.068×10^{-6}
	Cu centimeters	3785.41
	Cu feet	0.13368
	Cu inches	231
	Cu meters	0.00378
	Cu yards	0.00495
	Liters	3.7853
	Ounces (US liq)	128
	Pints (US liq)	8
	Quarts (US liq)	4
Liters	Acre-feet	8.106×10^{-7}
	Cu centimeters	1.000.03
	Cu feet	0.03532
	Cu inches	61.002
	Cu meters	0.00100003
	Cu yards	0.00131
	Gallons (US liq)	0.26148
	Ounces (US liq)	33.81497
	Pints (US liq)	2.1134
	Quarts (US liq)	1.0567
Ounces (US liq)	Cu Centimeters	29.5737
	Cu inches	1.80469
	Cu meters	2.957×10^{-5}
	Gallons (US liq)	0.00781
	Liters	0.02957
Pints (US liq)	Pints (US liq)	0.0625
	Quarts (US liq)	0.0312
	Cu Centimeters	473.176
	Cu feet	0.01671
	Cu inches	28.875
	Cu yards	0.000619
	Gallons (US liq)	0.125
Liters	0.47316	
Quarts (US liq)	0.5	

PRESSURE

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Atmospheres	BAR	1.01325
	Ft H ₂ O @ 68°F	33.96
	Grams/sq cm	1033.23
	In Hg @ 32°F	29.9213
	In H ₂ O @ 68°F	407.5
	Kg/sq cm	1.03322
	Kg/sq meter	10332
	kilo Pascals	101.3
	mm Hg @ 32°F	760
	Pounds/sq ft	2116
	Pounds/sq in	14.6960

BASIC CONVERSIONS



PRESSURE - continued

Convert From	Into	Multiply By	
BAR	Atmospheres	0.98692	
	Ft H ₂ O @ 68°F	33.51	
	Grams/sq cm	1019.72	
	In Hg @ 32°F	29.530	
	In H ₂ O @ 68°F	407.5	
	Kg/sq cm	1.01972	
	Kg/sq meter	10197	
	kilo Pascals	100	
	mm Hg @ 32°F	0.1333	
	Pounds/sq ft	2089.0	
	Pounds/sq in	14.5038	
	Ft H ₂ O @ 68°F	Atmospheres	0.98692
		BAR	2.984 X 10 ⁻²
		In Hg @ 32°F	0.8812
		In H ₂ O @ 68°F	12
		Kg/sq cm	3.043 X 10 ⁻²
		Kg/sq meter	304.3
kilo Pascals		2.984	
mm Hg @ 32°F		22.38	
Pounds/sq ft		62.32	
Pounds/sq in		0.4328	
Grams/sq cm		Atmospheres	0.00097
	BAR	0.00098	
	In Hg @ 32°F	0.02896	
	Kg/sq cm	1.01972	
	Kg/sq meter	1000	
	kilo Pascals	100	
	mm Hg @ 32°F	0.73556	
	Pounds/sq ft	2.0481	
	Pounds/sq in	0.01422	
	In Hg @32°F	Atmospheres	0.03342
		BAR	0.03386
Ft H ₂ O @ 68°F		1.135	
Grams/sq cm		34.532	
In H ₂ O @ 68°F		13.62	
Kg/sq cm		3.453 X 10 ⁻²	
Kg/sq meter		345.3	
kilo Pascals		3.386	
mm Hg @ 32°F		25.4	
Pounds/sq ft		70.73	
Pounds/sq in		0.4912	
In H ₂ O @ 68°F	Atmospheres	2.454 X 10 ⁻³	
	BAR	2.49 X 10 ⁻³	
	Ft H ₂ O @ 68°F	8.333 X 10 ⁻²	
	In Hg @ 32°F	7.343 X 10 ⁻²	
	Kg/sq cm	2.53 X 10 ⁻³	
	Kg/sq meter	25.38	
	kilo Pascals	0.249	
	mm Hg @ 32°F	1.865	
	Pounds/sq ft	5.197	
	Pounds/sq in	3.609 X 10 ⁻²	

PRESSURE - continued

Convert From	Into	Multiply By	
Kg/sq cm	Atmospheres	0.9678	
	BAR	0.98066	
	Ft H ₂ O@68°F	32.87	
	In Hg @32°F	28.959	
	In H ₂ O @ 68°F	394.4	
	Kg/sq meter	1 X 10 ⁴	
	kilo Pascals	98.07	
	mm Hg @32°F	735.6	
	Pounds/sq ft	2048	
	Pounds/sq in	14.22	
	Kg/sq meter	Atmospheres	9.678 X 10 ⁻⁵
		BAR	9.807 X 10 ⁻⁵
		Ft H ₂ O@68°F	3.287 X 10 ⁻³
		Grams/sq cm	0.1
		In Hg @32°F	0.0029
		In H ₂ O @ 68°F	3.944 X 10 ⁻²
		Kg/sq cm	0.001
kilo Pascals		9.807 X 10 ⁻³	
mm Hg @32°F		0.07356	
Pounds/sq ft		0.20482	
Pounds/sq in		1.422 X 10 ⁻³	
kilo Pascals	Atmospheres	9.869 X 10 ⁻³	
	BAR	0.01	
	Ft H ₂ O@68°F	0.3351	
	In Hg @32°F	0.2953	
	In H ₂ O @ 68°F	4.022	
	Kg/sq cm	1.02 X 10 ⁻²	
	Kg/sq meter	102	
	mm Hg @32°F	7.501	
	Pounds/sq ft	20.89	
	Pounds/sq in	0.145	
	mm Hg @32°F	Atmospheres	1.316 X 10 ⁻³
BAR		1.333 X 10 ⁻³	
Ft H ₂ O@68°F		4.468 X 10 ⁻²	
Grams/sq cm		1.3595	
In Hg @32°F		3.937 X 10 ⁻²	
In H ₂ O @ 68°F		0.5362	
Kg/sq cm		1.36 X 10 ⁻³	
Kg/sq meter		13.595	
kilo Pascals		0.1333	
Pounds/sq ft		2.7845	
Pounds/sq in		0.0193	
Pounds/sq ft	Atmospheres	4.73 X 10 ⁻⁴	
	BAR	4.79 X 10 ⁻⁴	
	Ft H ₂ O@68°F	1.605 X 10 ⁻²	
	Grams/sq cm	0.48824	
	In Hg @32°F	2.036	
	In H ₂ O @ 68°F	0.1926	
	Kg/sq cm	4.88 X 10 ⁻⁴	
	Kg/sq meter	4.882	
	kilo Pascals	4.79 X 10 ⁻²	
	mm Hg @32°F	0.3591	
	Pounds/sq in	6.945 X 10 ⁻³	



BASIC CONVERSIONS

PRESSURE - continued

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Pounds/sq in	Atmospheres	6.805 X 10 ⁻²
	BAR	6.895 X 10 ⁻²
	Ft H ₂ O @ 68°F	1.605 X 10 ⁻²
	Grams/sq cm	70.307
	In Hg @ 32°F	2.036
	In H ₂ O @ 68°F	27.73
	Kg/sq cm	7.031 X 10 ⁻²
	Kg/sq meter	703.1
	kilo Pascals	6.895
	mm Hg @ 32°F	51.72
Pounds/sq ft	144	

VELOCITY (Distance-time)

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Feet/day	Feet/ second	1.157 X 10 ⁻⁵
	Kilometers/hour	1.27 X 10 ⁻⁵
	Meters/second	3.528 X 10 ⁻⁶
	Miles/hour	7.891 X 10 ⁻⁶
Feet/ second	Feet/ day	8.64 X 10 ⁴
	Kilometers/hour	1.097
	Meters/second	0.3048
	Miles/hour	0.6818
Kilometers/hour	Feet/day	7.874 X 10 ⁴
	Feet/ second	0.9113
	Meters/second	0.2778
	Miles/hour	0.6214
Meters/second	Feet/day	2.835 X 10 ⁵
	Feet/ second	3.281
	Kilometers/hour	3.6
	Miles/hour	2.237
Miles/hour	Feet/day	1.267 X 10 ⁵
	Feet/ second	1.467
	Kilometers/hour	1.609
	Meters/second	0.447

DISCHARGE RATES (Volume-time)

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Acre-feet/day	Cu feet/second	0.5042
	Cu meters/day	1234
	Gallons/minute	226.3
	Liters/second	14.28
Cu feet/second	Acre-feet/day	1.983
	Cu meters/day	2447
	Gallons/minute	448.8
	Liters/second	28.32
Cu meters/day	Acre-feet/day	6.051 X 10 ⁶
	Cu feet/second	3.051 X 10 ⁶
	Gallons/minute	1.369 X 10 ⁹
	Liters/second	8.64 X 10 ⁷
Gallons/minute	Acre-feet/day	4.419 X 10 ⁻³
	Cu feet/second	2.228 X 10 ⁻³
	Cu meters/day	5.45
	Liters/second	6.309 X 10 ⁻²

DISCHARGE RATES - continued

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Liters/second	Acre-feet/day	7.005 X 10 ⁻²
	Cu feet/second	3.531 X 10 ⁻²
	Cu meters/day	86.4
	Gallons/minute	15.85

TORQUE

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Foot-pounds	Inch-pounds	12
	KF force-meters	1382.552 x 10 ⁻⁴
Inch-pounds	Newton-meters	1.356
	Foot-pounds	0.8333
	KF force-meters	11547.344 x 10 ⁻⁶
	Newton-meters	11559.357 x 10 ⁻⁵
KF force-meters	Foot-pounds	7.233
	Inch-pounds	86.8
	Newton-meters	9.807
Newton-meters	Foot-pounds	7374.631x 10 ⁻⁴
	Inch-pounds	8.651
	KF force-meters	10196.798 x 10 ⁻⁵

DENSITY

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Pounds/Cu inch	Pounds/Cu feet	1728
	Pounds/gallon	231
	Grams/Cu cm	27.68
	Grams/liter	2.768 X 10 ⁴
Pounds/Cu feet	Pounds/Cu inch	5.787 X 10 ⁻⁴
	Pounds/gallon	0.1337
	Grams/Cu cm	1.6 X 10 ⁻²
	Grams/liter	16.02
Pounds/gallon	Pounds/Cu inch	4.33 X 10 ⁻³
	Pounds/Cu feet	7.481
	Grams/Cu cm	0.1198
	Grams/liter	119.8
Grams/Cu cm	Pounds/Cu inch	3.61 X 10 ⁻²
	Pounds/Cu feet	62.43
	Pounds/gallon	8.345
	Grams/liter	1000
Grams/liter	Pounds/Cu inch	3.61 X 10 ⁻⁵
	Pounds/Cu feet	6.24 X 10 ⁻²
	Pounds/gallon	8.35 X 10 ⁻³
	Grams/Cu cm	0.001

ENERGY

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
British Thermal Unit (BTU)	Foot-pound	777.9
	Horsepower-hr	3.929 X 10 ⁻⁴
	Joules	1055
	Calorie	252
	Kilowatt-hr	2.93 X 10 ⁻⁴

BASIC CONVERSIONS



ENERGY - continued

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Foot-pound	BTU	1.285 X 10 ⁻³
	Horsepower-hr	5.051 X 10 ⁻⁷
	Joules	1.356
	Calorie	0.3239
	Kilowatt-hr	3.766 X 10 ⁻⁷
Horsepower-hr	BTU	2545
	Foot-pound	1.98 X 10 ⁶
	Joules	2.685 X 10 ⁶
	Calorie	6.414 X 10 ⁵
	Kilowatt-hr	0.7457
Joules	BTU	9.481 X 10 ⁻⁴
	Foot-pound	0.7376
	Horsepower-hr	3.725 X 10 ⁻⁷
	Calorie	0.2389
	Kilowatt-hr	2.778 X 10 ⁻⁷
Calorie	BTU	3.968 X 10 ⁻³
	Foot-pound	3.087
	Horsepower-hr	1.559 X 10 ⁻⁶
	Joules	4.186
	Kilowatt-hour	1.163 X 10 ⁻⁶
Kilowatt-hr	BTU	3413
	Foot-pound	2.655 X 10 ⁶
	Horsepower-hr	1.341
	Joules	3.6 X 10 ⁶
	Calorie	8.601 X 10 ⁵

MASS

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Ounce	Pound	0.0625
	Kilogram	0.02834952
	Short ton	3.125X 10 ⁻⁵
	Long ton	2.79X 10 ⁻⁵
	Metric ton	2.835X 10 ⁻⁵
Pound	Ounce	16
	Kilogram	0.4536
	Short ton	0.0005
	Long ton	0.0004464
	Metric ton	0.0004536
Kilogram	Ounce	35.27396
	Pound	2.20462
	Short ton	0.001102
	Long ton	0.00098
	Metric ton	0.091
Short ton	Ounce	32000
	Pound	2000
	Kilogram	907.18
	Long ton	0.89266
	Metric ton	0.90718
Long ton	Ounce	35840
	Pound	2240
	Kilogram	1016.05
	Short ton	1.12
	Metric ton	1.10605

MASS - continued

<u>Convert From</u>	<u>Into</u>	<u>Multiply By</u>
Metric ton	Ounce	35273.98
	Pound	2204.62
	Kilogram	1000
	Short ton	1.1023
	Long ton	0.98421