

Converting Units

So you finally learned what **rems** are and next thing you know you read a reference to **Sieverts**. Is this some plot to keep you uninformed?? Do you feel a case of **conversion aversion** coming on? Don't fear -- IEER's Conversion Table can help you. In this case, you would simply scroll down to the word "Sievert" to find that it equals 1/100th of a rem. (You can use the "find" feature in your Web browser to find the terms more quickly.) This table also converts pounds to grams, yards to meters and picocuries to becquerels, and lots more! Happy converting!

Table of Unit Conversions

[Unit Conversion Practice Worksheet.](#)

IF YOU HAVE	AND YOU WANT	MULITPLY BY
air, dry (m3)	grams	1185
americium-241 (curies)	americium-241 (grams)	0.286
americium-241 (grams)	americium-241 (curies)	3.49
Angstrom	centimeters	10^{-8}
barrels (55 gal.)	cubic feet	7.35243
barrels (55 gal.)	cubic meters	0.20820
barrels (US liquid)	gallons (US)	31.5
becquerels	curies	27×10^{-12}
becquerels	picocuries	about 27
body weight (kg.)	blood volume (cc.)	70
Btu	joules	1054.35
calories	joules	4.18400
Celsius	centigrade	1
Celsius	Fahrenheit	multiply by 1.8 and add 32
Celsius	Kelvin	add 273.16
centigrade	Celsius	1
centimeters	inches	0.39370
centimeters	meters	0.01
centimeters	microns	10 000
centimeters	yards	0.01094

curies	becquerels	37×10^9
curies	picocuries	10^{12}
ergs	joules	10^{-7}
dpm	curies	4.5×10^{-13}
gallons	liters	3.79
grains	grams	0.06480
grams	ounces	0.03527
Grays	rads	100
hours	years	0.0001141
inches	centimeters	2.54
inches	feet	0.083
inches	miles	1.58×10^5
in. mercury	atmospheres	0.03342
joules	Btu	9.48451×10^{-4}
joules	ergs	10^7
joules	tons TNT	2.38095×10^{-10}
joules	Watt-hours	0.00027
joules	Watt-seconds	1
joules/second	Watts	1
Kelvin	centigrade	subtract 273.16
kilograms	pounds	2.20462
kilometers	miles	0.62137
liters	cubic centimeters	1 000
liters	cubic feet	0.03532
liters	cubic meters	0.001
liters	gallons (US)	0.26418
liters	quarts	1.05672
meters	centimeters	100
meters	feet	3.28084
meters	yards	1.09361
microCi/gram	picoCi/gram	10^6
microCi/km ²	dpm/100 cm ²	0.022
microCi/m ²	dpm/100 cm ²	2.2×10^4
micrograms/m ³ (weight in air)	ppm (volume)	0.0241/molecular weight
microns	Angstrom	10 000
microns	centimeters	0.0001
microrad/hour	millirad/year	8.76
miles	centimeters	160 934.4

miles	kilometers	1.609344
milliliters	fluid ounces	0.00338
millimeters	centimeters	0.1
nanoCi./m ²	dpm/100m ²	22.22
nanograms/gram	ppb (parts/bil)	1
nanograms/liter	ppb	0.001
ounces (US fluid)	cubic centimeters	29.57373
ounces (US fluid)	milliliters	29.57373
percent	ppm	10 000
picocuries	becquerels	0.037
picocuries	curies	10 ⁻¹²
picoCi./gram	dpm/gram	2.22
plutonium-238 (curies)	plutonium-238 (grams)	0.054
plutonium-238 (grams)	plutonium-238 (curies)	18.6
plutonium-239 (curies)	plutonium-239 (grams)	15
plutonium-239 (grams)	plutonium-239 (curies)	0.067
plutonium-240 (curies)	plutonium-240 (grams)	4.11
plutonium-240 (grams)	plutonium-240 (curies)	0.24
plutonium-241 (curies)	plutonium-241 (grams)	0.0083
plutonium-241 (grams)	plutonium-241 (curies)	121.2
pounds	grams	453.59237
pounds	kilograms	0.45359
power	energy	time
ppb	nanograms/gram	1
ppb	nanograms/liter	1 000
ppb	ppm	0.001
ppm	grains/gallon	0.0584
ppm	percent	0.0001
ppm	ppb	1 000
quarts	liters	0.94633
rads	Grays	0.01
rads	rems	RBE factor
rems	Sieverts	0.01
seconds	years	3.171 x 10 ⁻⁸

Sieverts	rems	100
square centimeters	square feet	0.00108
square feet	square centimeters	929.0304
square feet	square meters	0.09290
square meters	square feet	10.76391
square miles	acres	640
therms	Btu	100 000
tons TNT	Btu	3 983 500
tons TNT	joules	4.2×10^9
tons (metric)	pounds	2204.6226
U-234 (curies)	U-234 (grams)	154.4
U-234 (grams)	U-234 (curies)	6.48×10^{-3}
U-238 (curies)	U-238 (grams)	2.81×10^6
U-238 (grams)	U-238 (curies)	3.56×10^{-7}
Watt-hours	Btu	3.41443
Watt-hours	joules	3 600
Watts	Btu/hour	3.41443
Watts	joules/second	1
Watts-seconds	joules	1
yards	centimeters	91.44
yards	meters	0.9144
years	hours	8760
years	seconds	31.54×10^6

[Practice converting units with this fun worksheet!](#)



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