

CONVERSION TABLES

To convert from a unit in the column at the left to a related unit, multiply by the factor in the appropriate right hand column. For example, to convert inches to meters multiply by 0.0254.

LENGTH

UNITS	CENTIMETERS	METERS	KILOMETERS	INCHES	FEET
centimeters	1	0.01	0.00001	0.3937	0.03281
meters	100	1	0.001	39.37	3.281
kilometers	100,000	1000	1	39400	3281
inches	2.54	0.0254	2.54×10^{-5}	1	0.08333
feet	30.48	0.3048	0.000305	12	1

1 angstrom = 1×10^{-4} microns = 1×10^{-8} cm = 3.937×10^{-9} inches

1 mile = 1.609 km = 1760 yd = 1.151 nautical mile

1 meter = 1.094 yd

MASS & WEIGHT

UNITS	GRAMS	KILOGRAMS	GRAIN (AVOIR.)	OUNCE (AVOIR.)	LB (AVOIR.)
gram	1	0.001	15.43	0.03527	0.0022
kilogram	1000	1	15432	35.27	2.205
grain (avoir.)	0.06480	6.48×10^{-5}	1	0.00229	0.000143
ounce (avoir.)	28.35	0.02835	437.5	1	0.0625
lb (avoir.)	453.6	0.4536	7000	16	1

VOLUME & CAPACITY

UNITS	CUBIC CM	LITERS	CUBIC INCHES	FLUID OUNCES (U.S.)	GALLON (U.S.)
cubic cm	1	0.001	0.06102	0.03381	0.000264
liter	1000	1	61.02	33.81	0.2642
cubic inches	16.39	0.01639	1	0.5541	0.00433
cubic ft	28300	28.32	1728	957.5	7.481
cubic yd	765000	764.5	46700	25900	202.0
fl oz (U.S.)	29.57	0.02957	1.805	1	0.00781
fl pt (U.S.)	473.2	0.4732	28.88	16	0.1250
fl quart (U.S.)	946.4	0.9464	57.75	32	0.25
gallon (U.S.)	3785	3.785	231.0	128	1

1 gal (Imperial) = 1.20094 gal (U.S.)

DENSITY

1 cubic ft water at 60°F = 62.37 lb

1 gram/cu cm = 62.37 lb/cu ft

1 gal. water at 62°F = 8.337 lb

1 lb/cu ft = 0.1337 lb/gal

TEMPERATURE CONVERSIONS

Fahrenheit to Centigrade

Centigrade to Fahrenheit

Formulae: C. to F. = $(^{\circ}\text{C.} \times 9/5) + 32 = ^{\circ}\text{F.}$
 F. to C. = $(^{\circ}\text{F.} - 32) \times 5/9 = ^{\circ}\text{C.}$

The table below can be used to convert °F. to °C. and vice versa. Locate the temperature to be converted (either F. or °C.) in the center column (bold face). The number to the left gives corresponding °C.; to the right corresponding °F.

Reading in °F. or °C. to be Converted			Reading in °F. or °C. to be Converted			Reading in °F. or °C. to be Converted		
°C.	°F.	°C.	°F.	°C.	°F.	°C.	°F.	°C.
128.9	-200	-328.0	-0.6	31	87.8	21.7	71	159.8
-73.3	-100	-148.0	0.0	32	89.6	22.2	72	161.6
-62.2	-80	-112.0	0.6	33	91.4	22.8	73	163.4
-51.1	-60	-76.0	1.1	34	93.2	23.3	74	165.2
-45.6	-50	-58.0	1.7	35	95.0	23.9	75	167.0
-40.0	-40	-40.0	2.2	36	96.8	24.4	76	168.8
-34.4	-30	-22.0	2.8	37	98.6	25.0	77	170.6
-28.9	-20	-4.0	3.3	38	100.4	25.6	78	172.4
-23.3	-10	14.0	3.9	39	102.2	26.1	79	174.2
-17.8	0	32.0	4.4	40	104.0	26.7	80	176.0
-17.2	1	33.8	5.0	41	105.8	27.2	81	177.8
-16.7	2	35.6	5.6	42	107.6	27.8	82	179.6
-16.1	3	37.4	6.1	43	109.4	28.3	83	181.4
-15.6	4	39.2	6.7	44	111.2	28.9	84	183.2
-15.0	5	41.0	7.2	45	113.0	29.4	85	185.0
-14.4	6	42.8	7.8	46	114.8	30.0	86	186.8
-13.9	7	44.6	8.3	47	116.6	30.6	87	188.6
-13.3	8	46.4	8.9	48	118.4	31.1	88	190.4
-12.8	9	48.2	9.4	49	120.2	31.7	89	192.2
-12.2	10	50.0	10.0	50	122.0	32.2	90	194.0
-11.7	11	51.8	10.6	51	123.8	32.8	91	195.8
-11.1	12	53.6	11.1	52	125.6	33.3	92	197.6
-10.6	13	55.4	11.7	53	127.4	33.9	93	199.4
-10.0	14	57.2	12.2	54	129.2	34.4	94	201.2
-9.4	15	59.0	12.8	55	131.0	35.0	95	203.0
-8.9	16	60.8	13.3	56	132.8	35.6	96	204.8
-8.3	17	62.6	13.9	57	134.6	36.1	97	206.6
-7.8	18	64.4	14.4	58	136.4	36.7	98	208.4
-7.2	19	66.2	15.0	59	138.2	37.2	99	210.2
-6.7	20	68.0	15.6	60	140.0	37.8	100	212.0
-6.1	21	69.8	16.1	61	141.8	48.9	120	248.0
-5.6	22	71.6	16.7	62	143.6	60.0	140	284.0
-5.0	23	73.4	17.2	63	145.4	71.1	160	320.0
-4.4	24	75.2	17.8	64	147.2	93.3	200	392.0
-3.9	25	77.0	18.3	65	149.0	100.0	212	413.6
-3.3	26	78.8	18.9	66	150.8	115.6	240	464.0
-2.8	27	80.6	19.4	67	152.6	137.8	280	536.0
-2.2	28	82.4	20.0	68	154.4	160.0	320	608.0
-1.7	29	84.2	20.6	69	156.2	182.2	360	680.0
-1.1	30	86.0	21.1	70	158.0	204.4	400	752.0