

CONVERSION TABLES

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Quantity	Imperial Unit	Metric Unit	Conversion Factors (Approximate)	
			Imperial to Metric Units	Metric to Imperial Units
LENGTH	inch (in)	millimetre (mm) or centimetre (cm)	1 in = 25.4 mm	1 cm = 0.394 in
	foot (ft)	centimetre or metre (m)	1 ft = 30.5 cm	1 m = 3.28 ft
	yard (yd)	metre (m)	1 yd = 0.914 m	1 m = 1.09 yd
	furlong (fur)	metre (m) or kilometre (km)	1 fur = 201 m	1 km = 4.97 fur
	mile	kilometre (km)	1 mile = 1.61 km	1 km = 0.621 mile
	(for navigation)	international nautical mile (n mile)	1 n mile = 1852 m	
MASS	ounce (oz)	gram (g)	1 oz = 28.3 g	1 g = 0.0353 oz
	pound (lb)	gram (g) or kilogram (kg)	1 lb = 454 g	1 kg = 2.20 lb
	stone	kilogram (kg)	1 stone = 6.35 kg	1 kg = 0.157 stone
	ton	tonne (t)	1 ton = 1.02 t	1 t = 0.984 ton
AREA	square inch (in ²)	square centimetre (cm ²)	1 in ² = 6.45 cm ²	1 cm ² = 0.155 in ²
	square foot (ft ²)	square centimetre (cm ²) or square metre (m ²)	1 ft ² = 929 cm ²	1 m ² = 10.8 ft ²
	square yard (yd ²)	square metre (m ²)	1 yd ² = 0.836 m ²	1 m ² = 1.20 yd ²
	perch (p)	square metre (m ²)	1 p = 25.3 m ²	1 m ² = 0.0395 p
	rood (rd)	hectare (ha)	1 rd = 0.101 ha	1 ha = 9.88 rd
	acre (ac)	hectare (ha)	1 ac = 0.405 ha	1 ha = 2.47 ac
	square mile	square kilometre (km ²)	1 square mile = 2.59 km ²	1 km ² = 0.386 square mile
VOLUME	cubic inch (in ³)	cubic centimetre (cm ³)	1 in ³ = 16.4 cm ³	1 cm ³ = 0.0610 in ³
	cubic foot (ft ³)	cubic metre (m ³)	1 ft ³ = 0.0283 m ³	1 m ³ = 35.3 ft ³
	cubic yard (yd ³)	cubic metre (m ³)	1 yd ³ = 0.765 m ³	1 m ³ = 1.31 yd ³
	bushel (bus)	cubic metre (m ³)	1 bus = 0.0364 m ³	1 m ³ = 27.5 bus
VOLUME (fluids)	fluid ounce (fl oz)	millilitre (ml)	1 fl oz = 28.4 ml	1 ml = 0.0352 fl oz
	pint (pt)	millilitre (ml) or litre (l)	1 pt = 568 ml	1 litre = 1.76 pt
	gallon (gal)	litre (l) or cubic metre (m ³)	1 gal = 4.55 litre	1 m ³ = 220 gal
	acre foot	cubic metre (m ³) or megalitre (Ml)	1 acre foot = 1230 m ³ = 1.23 Ml	1 Ml = 0.811 acre foot
FORCE	pound-force (lbf)	newton (N)	1 lbf = 4.45 N	1 N = 0.225 lbf
	ton-force (tonf)	kilonewton (kN)	1 tonf = 9.96 kN	1 kN = 0.100 tonf
PRESSURE	pound per square inch (psi)	kilopascal (kPa)	1 psi = 6.89 kPa	1 kPa = 0.145 psi
	atmosphere (atm)	kilopascal (kPa) or megapascal (MPa)	1 atm = 101 kPa	1 MPa = 9.87 atm
	ton per square inch (ton/in ²)	megapascal (MPa)	1 ton/in ² = 15.4 MPa	1 MPa = 0.0647 ton/in ²
	psi	kg/cm ²	1 psi = 0.070 kg/cm ²	1 kg/cm ² = 14.22 psi
VELOCITY	mile per hour (mph)	kilometre per hour (km/h)	1 mph = 1.61 km/h	1 km/h = 0.621 mph
	(for navigation)	knot (kn)	1 kn = 1.85 km/h	
TEMPERATURE	temperature (°F)	temperature (°C)	$C = \frac{5}{9} (F - 32)$ $F = \frac{9}{5} C + 32$	
DENSITY	pound per cubic inch (lb/in ³)	gram per cubic centimetre (g/cm ³) = tonne per cubic metre (t/m ³)	1 lb/in ³ = 27.7 t/m ³	1 t/m ³ = 0.0361 lb/in ³
	ton per cubic yard	tonne per cubic metre (t/m ³)	1 ton/yd ³ = 1.33 t/m ³	1 t/m ³ = 0.752 ton/yd ³
ENERGY	British thermal unit (Btu)	kilojoule (kJ)	1 Btu = 1.06 kJ	1 kJ = 0.948 Btu
	therm	megajoule (MJ)	1 therm = 106 MJ	1 MJ = 9.48 × 10 ⁻² therm
	(for electrical energy)	kilowatt hour (kWh)	1 kWh = 3.60 MJ	
POWER	horsepower (hp)	kilowatt (kW)	1 hp = 0.746 kW	1 kW = 1.34 hp
TIME		second (s)		
		minute (min)	1 min = 60 s	
		hour (h)	1 h = 3600 s	
FREQUENCY	cycle per second (c/s)	hertz (Hz)	1 c/s = 1 Hz	1 Hz = 1 c/s
ANGULAR VELOCITY	revolution per minute (rpm)	radian per second (rad/s)	1 rpm = 0.105 rad/s	1 rad/s = 9.55 rpm
		revolution per minute (rpm)		
TORQUE	lb-ft	Nm	1 lb-ft = 1.35582 Nm	1 Nm = 0.737562 lb-ft
VACUUM	inches of mercury (in Hg)	kilopascal (kPa)	1 in Hg = 3.386 kPa	1 kPa = 0.295 in Hg

INCHES	DECIMALS	MILLI-METRES	INCHES TO MILLIMETRES		MILLIMETRES TO INCHES		FAHRENHEIT & CELSIUS E			
			Inches	m.ms.	m.ms.	Inches	F	C	C	F
1/64	.015625	.3969	.0001	.00254	0.001	.000039	-20	-28.9	-30	-22
1/32	.03125	.7937	.0002	.00508	0.002	.000079	-15	-26.1	-28	-18.4
3/64	.046875	1.1906	.0003	.00762	0.003	.000118	-10	-23.3	-26	-14.8
1/16	.0625	1.5875	.0004	.01016	0.004	.000157	-5	-20.6	-24	-11.2
5/64	.078125	1.9844	.0005	.01270	0.005	.000197	0	-17.8	-22	-7.6
3/32	.09375	2.3812	.0006	.01524	0.006	.000236	1	-17.2	-20	-4
7/64	.109375	2.7781	.0007	.01778	0.007	.000276	2	-16.7	-18	-0.4
1/8	.125	3.1750	.0008	.02032	0.008	.000315	3	-16.1	-16	3.2
9/64	.140625	3.5719	.0009	.02286	0.009	.000354	4	-15.6	-14	6.8
5/32	.15625	3.9687	.001	.0254	0.01	.00039	5	-15.0	-12	10.4
11/64	.171875	4.3656	.002	.0508	0.02	.00079	10	-12.2	-10	14
3/16	.1875	4.7625	.003	.0762	0.03	.00118	15	-9.4	-8	17.6
13/64	.203125	5.1594	.004	.1016	0.04	.00157	20	-6.7	-6	21.2
7/32	.21875	5.5562	.005	.1270	0.05	.00197	25	-3.9	-4	24.8
15/64	.234375	5.9531	.006	.1524	0.06	.00236	30	-1.1	-2	28.4
1/4	.25	6.3500	.007	.1778	0.07	.00276	35	1.7	0	32
17/64	.265625	6.7469	.008	.2032	0.08	.00315	40	4.4	2	35.6
9/32	.28125	7.1437	.009	.2286	0.09	.00354	45	7.2	4	39.2
19/64	.296875	7.5406	.01	.254	0.1	.00394	50	10.0	6	42.8
5/16	.3125	7.9375	.02	.508	0.2	.00787	55	12.8	8	46.4
21/64	.328125	8.3344	.03	.762	0.3	.01181	60	15.6	10	50
11/32	.34375	8.7312	.04	1.016	0.4	.01575	65	18.3	12	53.6
23/64	.359375	9.1281	.05	1.270	0.5	.01969	70	21.1	14	57.2
3/8	.375	9.5250	.06	1.524	0.6	.02362	75	23.9	16	60.8
25/64	.390625	9.9219	.07	1.778	0.7	.02756	80	26.7	18	64.4
13/32	.40625	10.3187	.08	2.032	0.8	.03150	85	29.4	20	68
27/64	.421875	10.7156	.09	2.286	0.9	.03543	90	32.2	22	71.6
7/16	.4375	11.1125	.1	2.54	1	.03937	95	35.0	24	75.2
29/64	.453125	11.5094	.2	5.08	2	.07874	100	37.8	26	78.8
15/32	.46875	11.9062	.3	7.62	3	.11811	105	40.6	28	82.4
31/64	.484375	12.3031	.4	10.16	4	.15748	110	43.3	30	86
1/2	.5	12.7000	.5	12.70	5	.19685	115	46.1	32	89.6
33/64	.515625	13.0969	.6	15.24	6	.23622	120	48.9	34	93.2
17/32	.53125	13.4937	.7	17.78	7	.27559	125	51.7	36	96.8
35/64	.546875	13.8906	.8	20.32	8	.31496	130	54.4	38	100.4
9/16	.5625	14.2875	.9	22.86	9	.35433	135	57.2	40	104
37/64	.578125	14.6844	1	25.4	10	.39370	140	60.0	42	107.6
19/32	.59375	15.0812	2	50.8	11	.43307	145	62.8	44	111.2
39/64	.609375	15.4781	3	76.2	12	.47244	150	65.6	46	114.8
5/8	.625	15.8750	4	101.6	13	.51181	155	68.3	48	118.4
41/64	.640625	16.2719	5	127.0	14	.55118	160	71.1	50	122
21/32	.65625	16.6687	6	152.4	15	.59055	165	73.9	52	125.6
43/64	.671875	17.0656	7	177.8	16	.62992	170	76.7	54	129.2
11/16	.6875	17.4625	8	203.2	17	.66929	175	79.4	56	132.8
45/64	.703125	17.8594	9	228.6	18	.70866	180	82.2	58	136.4
23/32	.71875	18.2562	10	254.0	19	.74803	185	85.0	60	140
47/64	.734375	18.6531	11	279.4	20	.78740	190	87.8	62	143.6
3/4	.75	19.0500	12	304.8	21	.82677	195	90.6	64	147.2
49/64	.765625	19.4469	13	330.2	22	.86614	200	93.3	66	150.8
25/32	.78125	19.8437	14	355.6	23	.90551	205	96.1	68	154.4
51/64	.796875	20.2406	15	381.0	24	.94488	210	98.9	70	158
13/16	.8125	20.6375	16	406.4	25	.98425	212	100.0	75	167
53/64	.828125	21.0344	17	431.8	26	1.02362	215	101.7	80	176
27/32	.84375	21.4312	18	457.2	27	1.06299	220	104.4	85	185
55/64	.859375	21.8281	19	482.6	28	1.10236	225	107.2	90	194
7/8	.875	22.2250	20	508.0	29	1.14173	230	110.0	95	203
57/64	.890625	22.6219	21	533.4	30	1.18110	235	112.8	100	212
29/32	.90625	23.0187	22	558.8	31	1.22047	240	115.6	105	221
59/64	.921875	23.4156	23	584.2	32	1.25984	245	118.3	110	230
15/16	.9375	23.8125	24	609.6	33	1.29921	250	121.1	115	239
61/64	.953125	24.2094	25	635.0	34	1.33858	255	123.9	120	248
31/32	.96875	24.6062	26	660.4	35	1.37795	260	126.6	125	257
63/64	.984375	25.0031	27	690.6	36	1.41732	265	129.4	130	266