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## Factors

metric	'imperial'/US
<b>length</b>	
1.0 mm	0.039 in
25.4 mm	1 in
305.0 mm	1 ft
914.0 mm	1 yd
1000.0 mm (1.0 m)	1.094 yd
1000.0 m (1 km)	1093.61 yd (0.621 mile)
1609.3 m (1.61 km)	1 mile
<b>area</b>	
1.0 cm <sup>2</sup>	0.155 in <sup>2</sup>
645.2 mm <sup>2</sup> (6.452 cm <sup>2</sup> )	1 in <sup>2</sup>
929.03 cm <sup>2</sup> (0.093 m <sup>2</sup> )	1 ft <sup>2</sup>
0.836 m <sup>2</sup>	1 yd <sup>2</sup>
1.0 m <sup>2</sup>	1.196 yd <sup>2</sup> (10.764 ft <sup>2</sup> )
0.405 ha	1 acre
1.0 ha	2.471 acre
1.0 km <sup>2</sup>	0.386 mile <sup>2</sup>
2.59 km <sup>2</sup> (259 ha)	1 mile <sup>2</sup>
<b>volume</b>	
1 litre (1 dm <sup>3</sup> )	61.025 in <sup>3</sup> (0.035 ft <sup>3</sup> )
0.765 m <sup>3</sup>	1 yd <sup>3</sup>
1.0 m <sup>3</sup>	1.308 yd <sup>3</sup> (35.314 ft <sup>3</sup> )
<b>capacity</b>	
0.473 litre	1 pint US
0.568 litre	1 pint imp
1.0 litre	1.76 pint imp
1.0 litre	2.113 pint US
3.785 litres	1 gal US
4.546 litres	1 gal imp
<b>mass</b>	
0.454 kg	1 lb
1.0 kg	2.205 lb
0.907 t (907.2 kg)	1 ton US
1.0 t	0.984 ton imp
1.0 t	1.102 ton US
1.016 t (1016 kg)	1 ton imp
<b>velocity</b>	
0.025 m/s (25.4 mm/s)	1 in/s
1.0 m/s	39.4 in/s (196.9 ft/min)
1.0 km/hr	0.621 mile/hr
1.609 km/hr	1 mile/hr
<b>temperature</b>	
X °C	$(\frac{9}{5} X + 32)^\circ\text{F}$
$\frac{5}{9} \times (X - 32)^\circ\text{C}$	X °F
<b>illumination</b>	
1 lx	0.093 ft-candle
10.764 lx	1 ft-candle
<b>luminance</b>	
0.3183 cd/m <sup>2</sup>	1 apostilb
1.0 cd/m <sup>2</sup>	0.000645 cd/ft <sup>2</sup>
10.764 cd/m <sup>2</sup>	1 cd/ft <sup>2</sup>
1550.0 cd/m <sup>2</sup>	1 cd/in <sup>2</sup>

## Tables

length

mm ↔ in

mm		in	mm		in
25.4	1	0.04	254.0	10	0.39
50.8	2	0.08	508.0	20	0.79
76.2	3	0.12	762.0	30	1.18
101.6	4	0.16	1016.0	40	1.57
127.0	5	0.2	1270.0	50	1.97
152.4	6	0.24	1524.0	60	2.36
177.8	7	0.28	1778.0	70	2.76
203.2	8	0.31	2032.0	80	3.15
228.6	9	0.35	2286.0	90	3.54
			2540.0	100	3.93

m ↔ ft

m		ft	m		ft
0.3	1	3.28	3.05	10	32.8
0.61	2	6.56	6.1	20	65.62
0.91	3	9.84	9.14	30	98.43
1.22	4	13.12	12.19	40	131.23
1.52	5	16.4	15.24	50	164.04
1.83	6	19.69	18.29	60	196.85
2.13	7	22.97	21.34	70	229.66
2.44	8	26.25	24.38	80	262.47
2.74	9	29.53	27.43	90	295.28
			30.48	100	328.08

area

cm<sup>2</sup> ↔ in<sup>2</sup>

cm <sup>2</sup>		in <sup>2</sup>	cm <sup>2</sup>		in <sup>2</sup>
6.451	1	0.16	64.52	10	1.55
12.9	2	0.31	129.03	20	3.1
19.36	3	0.47	193.55	30	4.65
25.81	4	0.62	258.06	40	6.2
32.26	5	0.78	322.58	50	7.75
38.71	6	0.93	387.1	60	9.3
45.16	7	1.09	451.61	70	10.85
51.61	8	1.24	516.13	80	12.4
58.06	9	1.4	580.64	90	13.95
			645.16	100	15.5

m<sup>2</sup> ↔ ft<sup>2</sup>

m <sup>2</sup>		ft <sup>2</sup>	m <sup>2</sup>		ft <sup>2</sup>
0.093	1	10.76	0.93	10	107.64
0.19	2	21.53	1.86	20	215.28
0.28	3	32.29	2.79	30	322.92
0.37	4	43.06	3.72	40	430.56
0.46	5	53.82	4.65	50	538.2
0.56	6	64.58	5.57	60	645.84
0.65	7	75.35	6.5	70	753.47
0.74	8	86.11	7.43	80	861.11
0.84	9	96.88	8.36	90	968.75
			9.29	100	1076.39

volume

litre ↔ ft<sup>3</sup>

litre		ft <sup>3</sup>	litre		ft <sup>3</sup>
28.32	1	0.04	283.16	10	0.35
56.63	2	0.07	566.32	20	0.7
84.95	3	0.11	849.48	30	1.06
113.26	4	0.14	1132.64	40	1.41
141.58	5	0.18	1415.8	50	1.77
169.9	6	0.21	1698.96	60	2.12
198.21	7	0.25	1982.12	70	2.47
226.53	8	0.28	2265.28	80	2.83
254.84	9	0.32	2548.44	90	3.18
			2831.61	100	3.53

m<sup>3</sup> ↔ ft<sup>3</sup>

m <sup>3</sup>		ft <sup>3</sup>	m <sup>3</sup>		ft <sup>3</sup>
0.03	1	35.32	0.28	10	353.15
0.06	2	70.63	0.57	20	706.29
0.08	3	105.94	0.85	30	1059.44
0.11	4	141.26	1.13	40	1412.59
0.14	5	176.57	1.42	50	1765.73
0.17	6	211.89	1.7	60	2118.88
0.2	7	247.2	1.98	70	2472.03
0.23	8	282.52	2.27	80	2825.17
0.25	9	317.83	2.55	90	3178.32
			2.83	100	3531.47

For a comprehensive list of factors and a wide range of further tables  
→ p. 611–27