

## Selected factors for Converting between Units of Measure

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All values in **boldface** are exact conversions.

<b>area:</b>	1 acre	= 0.405 ha (hectare)
	1 square inch	= <b>645.16</b> mm <sup>2</sup>
<b>energy, work:</b>	1 calorie	= <b>4.186 8</b> J**
	1 Calorie (dietetic)	= 4.185 5 kJ**
	1 erg	= <b>0.1</b> µJ
	1 foot pound-force	= 1.356 J
<b>force, weight:</b>	1 dyne	= <b>10</b> µN
	1 kilopond (kg force)	= <b>9.806 65</b> N
	1 pound-force	= 4.448 N
<b>length:</b>	1 foot	= <b>30.48</b> cm = <b>0.3048</b> m
	1 inch	= <b>2.54</b> cm
	1 yard	= <b>0.9144</b> m
	1 mile	= <b>1.609 344</b> km
<b>mass:</b>	1 ounce (avoirdupois)	= 28.35 g
	1 pound (avoirdupois)	= 0.453 6 kg
	1 slug	= 14.59 kg
	1 stone (14 lb, UK)	= 6.350 kg
	1 ton (long, 2240 lb, UK)	= 1.016 Mg
	1 ton (short, 2000 lb)	= 0.907 Mg
<b>power:</b>	1 BTU per hour	= 0.293 W
	1 horsepower (electric)	= <b>746</b> W
<b>pressure, stress:</b>	1 atmosphere (standard)	= <b>101.325</b> kPa
	1 mm Hg (0°C)	= 133.3 kPa
	1 psi (lb/in <sup>2</sup> )	= 6.895 kPa
<b>temperature:</b>	1 Fahrenheit degree	= <b>5/9</b> K*
<b>velocity:</b>	1 mph	= <b>0.447 04</b> m/s
	1 mph	= <b>1.609 344</b> km/h
<b>volume:</b>	1 cubic foot	= 0.028 32 m <sup>3</sup>
	1 cubic inch	= 16.39 cm <sup>3</sup>
	1 gallon (imperial)	= 4.546 L
	1 gallon (US)	= 3.785 L

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\* Add 32 degrees after converting from Celsius to Fahrenheit or subtract 32 before converting from Fahrenheit to Celsius. Note that a Celsius degree is a kelvin (K).

\*\* The Calorie commonly used by dieticians to refer to the amount of energy in foods is the same as the kilocalorie. The calorie (small c) is 1/1000<sup>th</sup> of a Calorie.

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