

SI (metric) measurement system and the US traditional Equivalents  
 You are expected to memorize the boldface prefixes and their values.

<b>tera (T)</b>	$10^{12}$	1,000,000,000,000
<b>giga (G)</b>	$10^9$	1,000,000,000
<b>mega (M)</b>	$10^6$	1,000,000
<b>kilo (k)</b>	$10^3$	1,000
hecto (h)	$10^2$	100
deka (da)	$10^1$	10
base (none)	$10^0$	1
deci (d)	$10^{-1}$	0.1
<b>centi (c)</b>	$10^{-2}$	0.01
<b>milli (m)</b>	$10^{-3}$	0.001
<b>micro (<math>\mu</math>)</b>	$10^{-6}$	0.000 001
<b>nano (n)</b>	$10^{-9}$	0.000 000 001
pico (p)	$10^{-12}$	0.000 000 000 001
femto (f)	$10^{-18}$	0.000 000 000 000 001
atto (a)	$10^{-21}$	0.000 000000 000 000 001

<u>SI base units</u>	<u>US traditional units</u>
<b>mass</b> - kilogram (kg)	slug, blob
<b>length/distance</b> - meter (m)	inch (in), foot (ft), yard (yd), mile (mi)
<b>time</b> - second (s)	second (s), minute (min), hour (h)
<b>temperature</b> - kelvin (K)	Rankine (R)
- centigrade/Celsius ( $^{\circ}\text{C}$ )	Fahrenheit ( $^{\circ}\text{F}$ )
<b>energy</b> - joule (J)	calorie (cal), Calorie (Cal)
- electron volt (eV)	
<b>force</b> - newton (N)	pound (lb)
<b>pressure</b> – pascal (Pa)	pounds per square inch (psi), inches of Mercury (in Hg)
<b>charge</b> - coulomb (C)	coulomb (C)
<b>area</b> - square meter ( $\text{m}^2$ )	square foot ( $\text{ft}^2$ )
<b>volume</b> - cubic meter ( $\text{m}^3$ )	cubic foot ( $\text{ft}^3$ )
- liter (L)	ounce (oz), pint (pt), quart (qt), gallon (gal)
<b>power</b> - watt (W)	horsepower (hp)

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Equivalents for your use. Feel free to add your own as needed.

1 in = 2.54 cm	1 gal = 3.78 L	1 lb = 4.448 N	1 m = 3.28 ft
1 mi = 5280 ft	1 m = 39.37 in	1 hp = 746 W	1 mi = 1.61 km
1 slug = 14.6 kg	1 hp = 746 W	1 eV = $1.6 \times 10^{-19}$ J	1 Cal = 4184 J
1 blob = 12 slug	1 psi = 6894.8 Pa	1 in Hg = 3386.4 Pa	