



symbol	prefix	x factor	actual
T	<b>tera</b>	10 <sup>12</sup>	1,000,000,000,000
G	<b>giga</b>	10 <sup>9</sup>	1,000,000,000
M	<b>mega</b>	10 <sup>6</sup>	1,000,000
k	<b>kilo</b>	10 <sup>3</sup>	1,000
h	<b>hecto</b>	10 <sup>2</sup>	100
da	<b>deca</b>	10	10
d	<b>deci</b>	10 <sup>-1</sup>	0.1
c	<b>centi</b>	10 <sup>-2</sup>	0.01
m	<b>milli</b>	10 <sup>-3</sup>	0.001
	<b>micro</b>	10 <sup>-6</sup>	0.000001
n	<b>nano</b>	10 <sup>-9</sup>	0.000000001
p	<b>pico</b>	10 <sup>-12</sup>	0.000000000001

## ENERGY & HEAT    DENSITY

1 ft lbf = 1.356 J	1 lb/in <sup>3</sup> = 27.68 g/cm <sup>3</sup>
1 kW h = 3.6 MJ	1 lb/ft <sup>3</sup> = 16.02 kg/m <sup>3</sup>
1 cal = 4.187 J	1 slug/ft <sup>3</sup> = 515.4 kg/m <sup>3</sup>
1 hp h = 2.685 MJ	
1 Btu = 778.2 ft lbf = 252 cal = 1055 J	

## LENGTH, AREA & VOLUME

1 in = 25.4 mm	1 thou = 1 mil = 0.001 in = 25.4 μm
1 ft = 0.3048 m	1 mile = 5280 ft = 1.609 km
1 Å = 10 <sup>-10</sup> m	1 acre = 0.4047 ha = 4047m <sup>2</sup>
1 yd = 0.914 m	1 gal = 0.1605 ft <sup>3</sup> = 4546 cm <sup>3</sup> = 4.546 litre
1 micron = 1 μm	1 USgal = 0.1337 ft <sup>3</sup> = 3785 cm <sup>3</sup>
1 in <sup>3</sup> = 16.39 cm <sup>3</sup>	1 ft <sup>3</sup> = 0.02832 m <sup>3</sup>

## VELOCITY

1 mile/h = 1.467 ft/s = 1.609 km/h = 0.447 m/s
1 knot = 1.689 ft/s = 1.853 km/h = 0.514 m/s

## MASS

1 lb = 0.4536 kg
1 slug = 32.17 lb = 14.59 kg
1 ton = 2240 lb = 1016 kg
1 tonne = 1 Mg = 1 metric ton

## FLOW RATE

1 ft <sup>3</sup> /s (1 cusec) = 0.02832 m <sup>3</sup> /s
1 gal/min = 7.577 10 <sup>-5</sup> m <sup>3</sup> /s = 0.07577 dm <sup>3</sup> /s

## THERMAL CONDUCTIVITY

1 Btu/ft h deg R = 1.731 J/m s ...C = 1.731 W/(mK)
1 cal/cm s deg K = 418.7 Jm s ...C = 418.7 W/(mK)

## FORCE

1 pdl = 0.1383 N
1 lbf = 32.17 pdl = 4.448 N
1 tonf = 9964 N
1 kgf = 2.205 lbf = 9.807 N
1 dyne = 10 <sup>-5</sup> N

## TORQUE

1 lbf ft = 1.356 Nm
1 tonf ft = 3037 Nm