

Table 1: Metric Units

Quantity measured	Basic Unit	Symbol
Time	Second	s
Mass	Grams	g
Distance	Meter	m
Volume	Liter or cubic-meter	L or m ³
Force	Newton	N
Energy	Joule	J
Power	Watt	W
Current	Ampere	A
Potential Difference	Volt	V
Resistance	Ohm	Ω
Pressure	Pascal	Pa
Frequency	Hertz	Hz
Number	Mole	mol

Table 2: Metric Prefixes

List of the Metric Prefixes

Prefix	Symbol	Numerical	Exponential
yotta	Y	1,000,000,000,000,000,000,000,000,000	10 ²⁴
zetta	Z	1,000,000,000,000,000,000,000,000	10 ²¹
exa	E	1,000,000,000,000,000,000,000	10 ¹⁸
peta	P	1,000,000,000,000,000,000	10 ¹⁵
tera	T	1,000,000,000,000,000	10 ¹²
giga	G	1,000,000,000	10 ⁹
mega	M	1,000,000	10 ⁶
kilo	k	1,000	10 ³
hecto	h	100	10 ²
deca	da	10	10 ¹
no prefix means:		1	10 ⁰
deci	d	0.1	10 ⁻¹
centi	c	0.01	10 ⁻²
milli	m	0.001	10 ⁻³
micro	μ	0.000 001	10 ⁻⁶
nano	n	0.000 000 001	10 ⁻⁹
pico	p	0.000 000 000 001	10 ⁻¹²
femto	f	0.000 000 000 000 001	10 ⁻¹⁵
atto	a	0.000 000 000 000 000 001	10 ⁻¹⁸
zepto	z	0.000 000 000 000 000 000 001	10 ⁻²¹
yocto	y	0.000 000 000 000 000 000 000 001	10 ⁻²⁴

Table 3: Useful Conversion Factors and Relationships

USEFUL CONVERSION FACTORS AND RELATIONSHIPS	
Length	Energy (derived)
<i>SI unit: meter (m)</i>	<i>SI unit: joule (J)</i>
1 km = 0.62137 mi	1 J = 1 kg·m ² /s ²
1 mi = 5280 ft	1 J = 0.2390 cal
= 1.6093 km	= 1 C × 1 V
1 m = 1.0936 yd	1 cal = 4.184 J
1 in. = 2.54 cm (exactly)	1 eV = 1.602 × 10 ⁻¹⁹ J
1 cm = 0.39370 in.	
1 Å = 10 ⁻¹⁰ m	
	Pressure (derived)
Mass	<i>SI unit: Pascal (Pa)</i>
<i>SI unit: kilogram (kg)</i>	1 Pa = 1 N/m ²
1 kg = 2.2046 lb	= 1 kg/m·s ²
1 lb = 453.59 g	1 atm = 101,325 Pa
= 16 oz	= 760 torr
1 amu = 1.66053873 × 10 ⁻²⁴ g	= 14.70 lb/in ²
	1 bar = 10 ⁵ Pa
Temperature	1 torr = 1 mm Hg
<i>SI unit: Kelvin (K)</i>	Volume (derived)
0 K = -273.15°C	<i>SI unit: cubic meter (m³)</i>
= -459.67°F	1 L = 10 ⁻³ m ³
K = °C + 273.15	= 1 dm ³
°C = $\frac{5}{9}$ (°F - 32°)	= 10 ³ cm ³
°F = $\frac{9}{5}$ °C + 32°	= 1.0567 qt
	1 gal = 4 qt
	= 3.7854 L
	1 cm ³ = 1 mL
	1 in ³ = 16.4 cm ³

Table 4: Greek Alphabet

α	A	alpha	a	f <u>ather</u>
β	B	beta	b	<u>b</u> ig
γ	Γ	gamma	g, n	<u>G</u> od, <u>an</u> kle
δ	Δ	delta	d	<u>d</u> oor
ε	E	epsilon	e	<u>m</u> et
ζ	Z	zeta	z, dz	<u>z</u> eal, kud <u>z</u> u
η	H	eta	ē	ob <u>e</u> y
θ	Θ	theta	th	<u>th</u> ing
ι	I	iota	i	<u>p</u> it, pol <u>i</u> ce
κ	K	kappa	k	<u>k</u> ee <u>p</u>
λ	Λ	lambda	l	<u>l</u> aw
μ	M	mu	m	<u>m</u> othe <u>r</u>
ν	N	nu	n	<u>n</u> u <u>m</u> ber
ξ	Ξ	xi (ksee)	x	fo <u>x</u>
ο	O	omicron	o	<u>n</u> o <u>t</u>
π	Π	pi	p	<u>p</u> oo <u>r</u>
ρ	P	rho	r, rh	<u>r</u> o <u>d</u>
σ	Σ	sigma	s	<u>s</u> ave
τ	T	tau	t	<u>t</u> ime
υ	Υ	upsilon	u, y	German <u>ü</u>
φ	Φ	phi	ph	<u>ph</u> one
χ	X	chi	ch	German <u>ich</u>
ψ	Ψ	psi	ps	<u>t</u> ipsy
ω	Ω	omega	ō	<u>v</u> o <u>t</u> e

Table 5: Electron Configuration

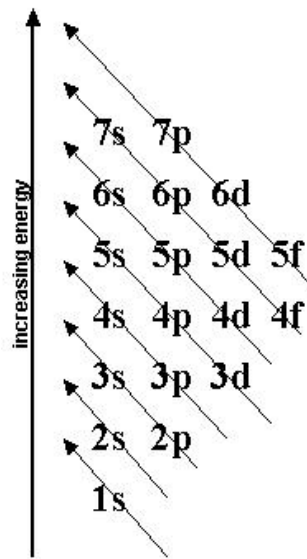


Table 6: Water Vapor Pressure

Water Vapor Pressure					
Temperature (°C)	Pressure (mm Hg)	Pressure (kPa)	Temperature (°C)	Pressure (mm Hg)	Pressure (kPa)
0.0	4.6	0.61	23.0	21.1	2.81
5.0	6.5	0.87	23.5	21.7	2.90
10.0	9.2	1.23	24.0	22.4	2.98
15.0	12.8	1.71	24.5	23.1	3.10
15.5	13.2	1.76	25.0	23.8	3.17
16.0	13.6	1.82	26.0	25.2	3.36
16.5	14.1	1.88	27.0	26.7	3.57
17.0	14.5	1.94	28.0	28.3	3.78
17.5	15.0	2.00	29.0	30.0	4.01
18.0	15.5	2.06	30.0	31.8	4.25
18.5	16.0	2.13	35.0	42.2	5.63
19.0	16.5	2.19	40.0	55.3	7.38
19.5	17.0	2.27	50.0	92.5	12.34
20.0	17.5	2.34	60.0	149.4	19.93
20.5	18.1	2.41	70.0	233.7	31.18
21.0	18.6	2.49	80.0	355.1	47.37
21.5	19.2	2.57	90.0	525.8	70.12
22.0	19.8	2.64	95.0	633.9	84.53
22.5	20.4	2.72	100.0	760.0	101.32