

Mobius Units Help

The Unit column of the following tables display all of the units that are recognized by the system. You can use either the units themselves, or combinations of these units, for example kJ/mol, kg*m², or m/s/s. The system accepts equivalent answers with different units as long as both units are accepted in the system. That is, if the answer is 120 cm, then 1.2 m or 1200 mm will also be accepted as correct.

SI/Metric Units (Accept Prefixes)

The units in this section can each be prefixed with one of the accepted SI prefixes below.

SI Prefixes

Prefix	Factor	Name
Y	10 ²⁴	yotta
Z	10 ²¹	zetta
E	10 ¹⁸	exa
P	10 ¹⁵	peta
T	10 ¹²	tera
G	10 ⁹	giga
M	10 ⁶	mega
k	10 ³	kilo
h	10 ²	hecto
da	10 ¹	deca
d	10 ⁻¹	deci
c	10 ⁻²	centi
m	10 ⁻³	milli
u	10 ⁻⁶	micro
n	10 ⁻⁹	nano
p	10 ⁻¹²	pico
f	10 ⁻¹⁵	femto
a	10 ⁻¹⁸	atto
z	10 ⁻²¹	zepto
y	10 ⁻²⁴	yocto

CGS Units

Unit	Definition	Name
erg	10 ⁻⁷ J	erg
dyn	10 ⁻⁵ N	dyne
P	0.1 Pa*s	poise
St	cm ² /s	stokes
sb	cd/cm ²	stilb
ph	10 ⁴ lx	phot
Gal	cm/s ²	gal
Mx	10 ⁻⁸ Wb	maxwell
G	10 ⁻⁴ T	gauss
Oe	(10 ^{3/4} /Pi) A/m	oersted (rationalized)

Base Units

Unit	Definition	Name
m		meter
s		second
kg		kilogram
A		amp
K		kelvin

Derived SI Units

Unit	Definition	Name
mol	6.02214199 * 10 ²³	mole
rad	1	radian
sr	1	steradian
Hz	1/s	hertz
N	kg m/s ²	newton
Pa	N/m ²	pascal
J	N m	joule
W	J/s	watt
C	A s	coulomb
V	J/C	volt
F	C/V	farad
ohm	V/A	ohm
S	A/V	siemens
Wb	V s	weber
T	Wb/m ²	tesla
H	Wb/A	henry
lm	cd sr	lumen
lx	lm/m ²	lux
Bq	s ⁻¹	becquerel
Gy	J/kg	gray
Sv	J/kg	sievert
kat	mol/s	katal

Metric Units

Unit	Definition	Name
L	m ³ /1000	liter
M	mol/L	molar
eV	J*1.602E-19	electron volt

SI/Metric Units (No Prefixes)

These units, and alternative ways of writing units, do not accept SI prefixes.

Long-form Names of SI Units

Unit	Definition	Name
meter	m	meter
metre	m	meter
meters	m	meter
centimeter	cm	centimeter
centimeters	cm	centimeter
radian	rad	radian
radians	rad	radian
steradian	sr	steradian
steradians	sr	steradian
sec	s	second
second	s	second
seconds	s	second
mole	mol	mole
moles	mol	mole
ohms	ohm	ohm

Metric Units and Long-form Names

Unit	Definition	Name
min	60s	minute
minute	min	minute
minutes	min	minute
h	60min	hour
hr	h	hour
hour	h	hour
hours	h	hour
d	24h	day
day	d	day
days	d	day
deg	$\text{Pi}/180$	degree
degree	deg	degree
degrees	deg	degree
arcdegree	deg	degree
arcdeg	deg	degree
arcminute	deg/60	arcminute
arcmin	arcminute	arcminute
arcsecond	arcminute/60	arcsecond
arcsec	arcsecond	arcsecond
ha	10^4 m^2	hectare
hectare	ha	hectare
liter	L	liter
liters	L	liter
t	10^3 kg	tonne (metric)
tonne	t	tonne (metric)
tonnes	t	tonne (metric)
Molar	M	molar
bar	100 kPa	bar
mbar	$\text{bar} \cdot 10^{-3}$	millibar
cbar	$\text{bar} \cdot 10^{-2}$	centibar
dbar	$\text{bar} \cdot 10^{-1}$	decibar
kbar	$\text{bar} \cdot 10^3$	kilobar
Mbar	$\text{bar} \cdot 10^6$	megabar
mmHg	133.322 Pa	millimeter of mercury
b	100 fm^2	barn
kn	$(1852/3600) \text{ m/s}$	knot
degC	$(T + 273.15) \text{ K}$	degree Celsius

U.S. Customary/Imperial Units

The units in this section cover commonly used units from the U.S. Customary System and the Imperial System.

Unit	Definition	Name
in	(1/12)ft	inch
inch	in	inch
inches	in	inch
ft	m*0.3048	foot
foot	ft	foot
feet	ft	foot
yd	3feet	yard
yard	yd	yard
yards	yd	yard
mi	5280 feet	miles (statute)
mile	mi	miles (statute)
miles	mi	miles (statute)
li	(33/50)sft	link
sft	(1200/3937)m	foot (survey)
rd	25 li	rod
ch	4 rd	chain
fur	10 ch	furlong
lea	3 mi	league
ftm	2 yd	fathom
cb	120 ftm	cable
nmi	1.852 km	mile (nautical)
NM	1.852 km	mile (nautical)
sqft	144 in ²	square foot (survey)
sqch	4356 sqft	square chain
acre	43560 sqft	acre
acres	acre	acre
section	640 acre	section
sections	section	section
twp	36 sections	survey township
cuin	in ³	cubic inch
cuft	1728 cuin	cubic foot
cuyd	27 cuft	cubic yard
acreft	45360 cuft	acre-foot
floz	29.5735295625 mL	fluid ounces (US)
cp	8 floz	cup (US fluid)
pt	2 cp	pint (US fluid)
qt	2 pt	quart (US fluid)
gal	4 qt	gallon (US fluid)

Unit	Definition	Name
flozl	28.4130625 mL	fluid ounces (Imperial)
gil	5 flozl	gill (Imperial)
ptl	20 flozl	pint (Imperial)
qtl	2 ptl	quart (Imperial)
gall	4 qtl	gallon (Imperial)
oz	(1/16)lb	ounces (Avoirdupois)
lb	453.59237 g	pounds (Avoirdupois)
lbs	lb	pounds (Avoirdupois)
ton	2000 lb	ton (Avoirdupois)
degF	$(5/9)(T - 32) + 273.15$ K	degree Fahrenheit