

# PhyzReference: Conversion Factors

Conversion factors may be read directly from the tables.

Units shown in capital letters are standard SI units.

## Length

	cm	METER	km	in	ft	mi
1 centimeter =	1	1E-02 = 0.01	1E-05	0.3937	3.281E-02	6.214E-06
1 METER =	100	1	1E-03	39.37	3.281	6.214E-04
1 kilometer =	10,000	1000	1	3.94E+04	3281	0.6214
1 inch =	2.54	2.54E-02	2.54E-05	1	8.333E-02	1.578E-05
1 foot =	30.48	0.3048	3.048E-04	12	1	1.894E-04
1 mile =	1.609E+05	1609	1.609	6.34E+04	5280	1

1 micron = 1E-06 m

1 light-year = 9.460E+12 km

1 ångström = 1E-10 m

1 parsec = 3.084E+13 km

1 fermi = 1E-15 m

1 fathom = 6 ft

## Time

	y	d	h	min	SECOND
1 year =	1	365.25	8.77E+03	5.26E+05	3.16E+07
1 day =	2.738E-03	1	24	1440	8.64E+04
1 hour =	1.141E-04	4.167E-02	1	60	3600
1 minute =	1.901E-06	6.944E-04	1.667E-02	1	60
1 SECOND =	3.0169E-08	1.157E-05	2.778E-04	1.667E-02	1

## Mass

	g	KILOGRAM	lb*
1 gram =	1	0.001	2.205E-03
1 KILOGRAM =	1000	1	2.205
1 pound* =	453.6	0.4536	1

1 metric ton = 1000kg

1 ton\* = 2000lb\*

1 ounce\* = 6.250E-02 lb\*

\*These are not units of mass but are often used as such.

1 kilogram of mass weighs 2.205 pounds under standard gravity conditions.

## Speed

Complete this table based on information given in the length and time tables.	ft/s	km/h	METER/SECOND	mi/h
1 foot per second =				
1 kilometer per hour =				
1 METER per SECOND =				
1 mile per hour =				

Adapted from "Fundamentals of Physics" by Halliday and Resnick (John Wiley & Sons)

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7/26/00