

MATH 225, MATH AS A DECISION MAKING TOOL

UNIT CONVERSIONS CHART

The left column of each table is an indication of the *starting units*. The units in the top row of each table indicate the *ending units*, or the final units you are wishing to convert to.

WEIGHT (DRY MEASURE)					
Convert to⇒	oz.	lb.	T	g	kg
1 ounce (oz.)	1	$\frac{1}{16} \approx .0625$	$\frac{1}{32,000} \approx 3.125 \cdot 10^{-5}$	28.35	0.02835
1 pound (lb.)	16	1	$\frac{1}{2,000} \approx 5 \cdot 10^{-4}$	453.59	0.45359
1 ton (T)	32,000	2,000	1	907,184.7	907.1847
1 gram (g)	$3.5274 \cdot 10^{-2}$	$2.2046 \cdot 10^{-3}$	$1.1023 \cdot 10^{-6}$	1	$\frac{1}{1000} = 0.001$
1 kilogram (kg)	35.274	2.2046	$1.1023 \cdot 10^{-3}$	1000	1

TEMPERATURE			
Convert to⇒	°F	°C	°K
Fahrenheit (°F)	× 1	-32, then × $\frac{5}{9}$	+459.67, then × $\frac{5}{9}$
Celsius (°C)	× 1.8, then +32	× 1	+273.15
Kelvin (°K)	× 1.8, then -459.67	-273.15	× 1

LENGTH								
Convert to⇒	in.	ft.	yds.	mi.	mm	cm	m	km
1 inch (in.)	1	$\frac{1}{12} \approx .0833$	$\frac{1}{36} \approx .0278$	$\frac{1}{63360} \approx 1.5783 \cdot 10^{-5}$	25.4	2.54	$2.54 \cdot 10^{-2}$	$2.54 \cdot 10^{-5}$
1 foot (ft.)	12	1	$\frac{1}{3}$	$\frac{1}{5280} \approx 1.894 \cdot 10^{-4}$	304.8	30.48	0.3048	$3.048 \cdot 10^{-4}$
1 yard (yd.)	36	3	1	$\frac{1}{1760} \approx 5.682 \cdot 10^{-4}$	914.4	91.44	0.9144	$9.144 \cdot 10^{-4}$
1 mile (mi.)	63,360	5,280	1,760	1	1,614,344	161,434.4	1,614.344	1.614344
1 millimeter (mm)	$3.937 \cdot 10^{-2}$	$3.2808 \cdot 10^{-3}$	$1.0936 \cdot 10^{-3}$	$6.2137 \cdot 10^{-7}$	1	0.1	0.001	$1 \cdot 10^{-6}$
1 centimeter (cm)	$3.937 \cdot 10^{-1}$	$3.2808 \cdot 10^{-2}$	$1.0936 \cdot 10^{-2}$	$6.2137 \cdot 10^{-6}$	10	1	0.01	$1 \cdot 10^{-5}$
1 meter (m)	39.37	3.2808	1.0936	$6.2137 \cdot 10^{-4}$	1,000	100	1	0.001
1 kilometer (km)	3937	3280.8	1093.6	0.62137	1,000,000	100,000	1,000	1

VOLUME (LIQUID MEASURE)									
Convert to⇒	tsp.	tbsp.	fl. oz.	cups	pt.	qt.	gal.	mL	L
1 teaspoon (tsp.)	1	$\frac{1}{3}$	$\frac{1}{66} \approx 0.0152$	0.021	0.01042	$5.21 \cdot 10^{-3}$	$1.3 \cdot 10^{-3}$	5	0.005
1 tablespoon (tbsp.)	3	1	$\frac{1}{2}$	0.0625	0.03125	0.015625	0.0391	15	0.015
1 fluid ounce (fl. oz.)	6	2	1	$\frac{1}{8} = 0.125$	$\frac{1}{16} = 0.0625$	$\frac{1}{32} = 0.03125$	$\frac{1}{128} = 7.8125 \cdot 10^{-3}$	30	0.03
1 cup	48	16	8	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{16}$	236.59	0.23659
1 pint (pt.)	96	32	16	2	1	$\frac{1}{2}$	$\frac{1}{8}$	473.18	0.47318
1 quart (qt.)	192	64	32	4	2	1	$\frac{1}{4}$	946.35	0.94635
1 gallon (gal.)	768	256	128	16	8	4	1	3785	3.785
1 milliliter (mL)	0.20284	0.067628	0.033814	0.004227	0.002113	0.001057	0.0002642	1	0.001
1 liter (L)	202.884	67.628	33.814	4.227	2.113	1.057	0.2642	1000	1