

WEIGHTS AND MEASURES

METRIC SYSTEM



Unit		LENGTH		Metric Equivalent		U.S. Equivalent	
millimeter	(mm)	=	0.001	meter	=	0.03937	inch
centimeter	(cm)	=	0.01	meter	=	0.3937	inch
decimeter	(dm)	=	0.1	meter	=	3.937	inches
METER	(m)	=	1.0	meter	=	39.37	inches
dekameter	(dkm)	=	10.0	meters	=	10.93	yards
hectometer	(hm)	=	100.0	meters	=	328.08	feet
kilometer	(km)	=	1000.0	meters	=	0.6214	mile

Unit		WEIGHT OR MASS		Metric Equivalent		U.S. Equivalent	
milligram	(mg)	=	0.001	gram	=	0.0154	grain
centigram	(cg)	=	0.01	gram	=	0.1543	grain
decigram	(dg)	=	0.1	gram	=	1.543	grains
GRAM	(g)	=	1.0	gram	=	15.43	grains
dekagram	(dkg)	=	10.0	grams	=	0.3527	ounce avoirdupois
hectogram	(hg)	=	100.0	grams	=	3.527	ounces avoirdupois
kilogram	(kg)	=	1000.0	grams	=	2.2	pounds avoirdupois

Unit		CAPACITY		Metric Equivalent		U.S. Equivalent	
milliliter	(ml)	=	0.001	liter	=	0.034	fluid ounce
centiliter	(cl)	=	0.01	liter	=	0.338	fluid ounce
deciliter	(dl)	=	0.1	liter	=	3.38	fluid ounces
LITER	(l)	=	1.0	liter	=	1.05	liquid quarts
dekaliter	(dkl)	=	10.0	liters	=	0.284	bushel
hectoliter	(hl)	=	100.0	liters	=	2.837	bushels
kiloliter	(kl)	=	1000.0	liters	=	264.18	gallons

Unit		AREA		Metric Equivalent		U.S. Equivalent	
square millimeter	(mm ²)	=	0.000001	centare	=	0.00155	square inch
square centimeter	(cm ²)	=	0.0001	centare	=	0.155	square inch
square decimeter	(dm ²)	=	0.01	centare	=	15.5	square inches
CENTARE also	(ca)	=	1.0	centare	=	10.76	square feet
square meter	(m ²)	=			=		
are also	(a)	=	100.0	centares	=	0.0247	acre
square dekameter	(dkm ²)	=			=		
hectare also	(ha)	=	10,000.0	centares	=	2.47	acres
square hectometer	(hm ²)	=			=		
square kilometer	(km ²)	=	1,000,000.0	centares	=	0.386	square mile

Unit		VOLUME		Metric Equivalent		U.S. Equivalent	
cubic millimeter	(mm ³)	=	0.001	cubic centimeter	=	0.016	minim
cubic centimeter	(cc, cm ³)	=	0.001	cubic decimeter	=	0.061	cubic inch
cubic decimeter	(dm ³)	=	0.001	cubic meter	=	61.023	cubic inches
STERE also	(s)	=	1.0	cubic meter	=	1.308	cubic yards
cubic meter	(m ³)	=			=		
cubic dekameter	(dkm ³)	=	1000.0	cubic meters	=	1307.943	cubic yards
cubic hectometer	(hm ³)	=	1,000,000.0	cubic meters	=	1,307,942.8	cubic yards
cubic kilometer	(km ³)	=	1,000,000,000.0	cubic meters	=	0.25	cubic mile

U.S. SYSTEM

LIQUID MEASURE

4	gills	=	1 pint (pt.)
2	pints	=	1 quart (qt.)
4	quarts	=	1 gallon (gal.)
31.5	gallons	=	1 barrel (bbl.)
2	barrels	=	1 hogshead
60	minims	=	1 fluid dram (fl. dr.)
8	fluid drams	=	1 fluid ounce (fl. oz.)
16	fluid ounces	=	1 pint

SQUARE MEASURE

144	square inches (sq. in.)	=	1 square foot (sq. ft.)
9	square feet	=	1 square yard (sq. yd.)
30.25	square yards	=	1 square rod (sq. rd.)
160	square rods	=	1 acre (A.)
640	acres	=	1 square mile (sq. mi.)

AVOIRDUPOIS WEIGHT

27.34	grains (gr.)	=	1 dram (dr. av.)
16	drams	=	1 ounce (oz. av.)
16	ounces	=	1 pound (lb. av.)
2000	pounds	=	1 short ton (sh. tn.)
2240	pounds	=	1 long ton (l. tn.)

LINEAR MEASURE

1	mil	=	0.001 inch (in.)
12	inches	=	1 foot (ft.)
3	feet	=	1 yard (yd.)
6	feet	=	1 fathom
5.5	yards	=	1 rod (rd.)
40	rods	=	1 furlong
5280	feet	=	1 mile (mi.)
1760	yards	=	1 mile

APOTHECARIES' WEIGHT

20	grains (gr.)	=	1 scruple
3	scruples	=	1 dram (dr.)
8	drams	=	1 ounce (oz.)
12	ounces	=	1 pound (lb.)

TROY WEIGHT

24	grains	=	1 pennyweight (dwt.)
20	pennyweight	=	1 ounce (oz. t.)
12	ounces	=	1 pound (lb. t.)