

Metric System & Conversion Charts

Only the Metric System is completely decimal. In the common U.S. system, for example, 12 inches = 1 foot, 27 cubic feet = 1 cubic yard, 5280 feet = 1 mile. In the metric system, units of different magnitude are obtained solely by shifting the decimal point. For example:

0.1 meter	=	1 decimeter
0.01 meter	=	1 centimeter
1000 meters	=	1 kilometer

The names of the most common prefixes are:

Mega	=	1,000,000
Kilo	=	1,000
Hecto	=	100
Deka	=	10
Deci	=	0.1 (tenth)
Centi	=	0.01 (hundredth)
Milli	=	0.001 (thousandth)
Micro	=	0.000001 (millionth)

Metric Measures

Linear Measure

10 Millimeters	=	1 centimeter
10 centimeters	=	1 decimeter
10 decimeters	=	1 meter
10 meters	=	1 dekameter
10 dekameters	=	1 hectometers
10 hectometers	=	1 kilometer

Square Measure

100 sq. millimeters	=	1 sq. centimeter
100 sq. centimeters	=	1 sq. decimeter
100 sq. decimeters	=	1 sq. meter
100 sq. meters	=	1 sq. dekameter
100 sq. dekameter	=	1 sq. hectometer
100 sq. hectometers	=	1 sq. kilometer

Liquid Measure

10 milliliters	=	1 centiliter
10 centiliters	=	1 deciliter
10 deciliters	=	1 liter
10 liters	=	1 dekaliter
10 dekaliters	=	1 hectoliter
10 hectoliters	=	1 kiloliter

Weights

10 milligrams	=	1 centigram
10 centigrams	=	1 decigram
10 decigrams	=	1 gram
10 grams	=	1 dekagram
10 dekagrams	=	1 hectogram
10 hectograms	=	1 kilogram
100 kilograms	=	1 quintal
10 quintals	=	1 metric ton

Cubic Measure

1,000 cubic millimeters	=	1 cubic centimeter
1,000 cubic centimeters	=	1 cubic decimeter
1,000 cubic decimeters	=	1 cubic meter

Metric Equivalents

Weights

1 gram	=	0.03527 ounce
1 ounce	=	28.35 grams
1 kilogram	=	2.2046 pounds
1 pound	=	0.4536 kilogram
1 metric ton	=	1.1023 English tons
1 English ton	=	0.9072 metric ton

Square Measure

1 sq. centimeter	=	0.1550 sq. inch
1 sq. inch	=	6.452 sq. centimeters
1 sq. decimeter	=	0.1076 sq. foot
1 sq. foot	=	9.2903 sq. decimeters
1 sq. meter	=	1.196 sq. yards
1 sq. yard	=	0.8361 sq. meter
1 acre	=	160 sq. rods
1 sq. rod	=	0.000625 acres
1 hectare	=	2.471 acres
1 acre	=	0.407 hectare
1 sq. kilometer	=	0.386 sq. mile
1 sq. mile	=	2.59 sq. kilometers

Linear Measure

1 centimeter	=	0.3937 inch
1 inch	=	2.54 centimeters
1 decimeter	=	3.937 inches
1 foot	=	3.048 decimeters
1 meter	=	39.37 inches
1 yard	=	0.9144 meter
1 dekameter	=	1.9884 rods
1 rod	=	0.5029 dekameter
1 kilometer	=	0.62137 mile
1 mile	=	1.6093 kilometers

Measure of Volume

1 cubic centimeter	=	0.061 cubic inch
1 cubic inch	=	16.39 cubic centimeters
1 cubic decimeter	=	0.0353 cubic foot
1 cubic foot	=	28.317 cubic decimeters
1 cubic meter	=	1.308 cubic yards
1 cubic yard	=	0.7646 cubic meter
1 stere	=	0.2759 cord
1 cord	=	3.625 steres
1 liter	=	0.908 quart dry
1 liter	=	1.0567 quarts liquid
1 quart dry	=	1.101 liters
1 quart liquid	=	0.9464 liters
1 dekaliter	=	2.6417 gallons
1 gallon	=	0.3785 dekaliter
1 peck	=	0.881 dekaliter
1 hectoliter	=	2.8378 bushels
1 bushel	=	0.3524 hectoliter

Approximate Equivalents

1 decimeter	=	4 inches
1 liter	=	1.06 quarts fluid
1 liter	=	0.9 quart dry
1 meter	=	1.1 yard
1 kilometer	=	5/8 of a mile
1 hectoliter	=	2-5/8 bushels
1 hectare	=	2-1/2 acres
1 kilogram	=	2-1/5 pounds
1 cubic meter	=	1/4 of a cord
1 metric ton	=	1.1 English tons