

# Unit Conversion Table

## LENGTH

### Ordinary Units

1 foot	= 12 inches
1 yard	= 3 feet
1 mile	= 5280 feet
1 nautical mi	= 1.1516 statute mi
1° of latitude at the equator	= 69.16 statute mi = 60 nautical mi
1 acre	= 208.71 ft on one side of square

### Metric Units

1000 picometres	= 1 nanometre
1000 nanometres	= 1 micrometre
1000 micrometres	= 1 millimetre
10 millimetres	= 1 centimetre
100 millimetres	= 1 decimetre
10 centimetre	= 1 decimetre
1000 metres	= 1 netre
100 centimetres	= 1 metre
10 decimetres	= 1 metre
100 metres	= 1 hectometre
1000 metres	= 1 kilometre
10 hectometres	= 1 kilometre
1000 kilometres	= 1 megametre
1852 nautical metres	= 1 international nautical mile

### Equivalents

1 inch	= 2.5400 centimetres
1 foot	= 0.3048 metre
1 statute mi	= 1.60935 kilometres
1 nautical mi	= 1.853 kilometres
1 centimetre	= 0.39370 inch
1 metre	= 3.28 feet
1 kilometre	= 3280.83 feet = 0.62137 mile

## AREA

### Ordinary Units

1 square foot	= 144 square inches
1 square yard	= 9 sq ft = 1296 sq ft in.
1 acre	= 43,560 sq ft = 4840 sq yds
1 sq mile	= 640 acres = 1 section of land (U.S.)

### Metric Units

100 sq millimetres	= 1 sq centimetre
100 sq centimetres	= 1 sq decimetre
10000 sq centimetres	= 1 sq metre
100 sq decimetres	= 1 sq metre
100 sq metres	= 1 are
10 ares	= 1 dekare
10000 sq metres	= 1 sq hectometre = 1 hectare
100 ares	= 1 hectare
10 dekares	= 1 hectare
100 sq hectometres	= 1 sq kilometre
100 hectares	= 1 sq kilometre

### Equivalents

1 square centimetre	= 0.155 square inch
1 square metre	= 10.76 square feet = 1.196 square yards
1 square kilometre	= 0.386 square mile
1 square inch	= 6.45 square centimetres
1 square foot	= 0.0929 square metre
1 square yard	= 0.836 square metre
1 square mile	= 2.59 square kilometres

## VOLUME AND CAPACITY

### Ordinary Units

1 cu ft of water at 39.1° F	= 62.425 lbs
1 United States gallon	= 231 cu in.
1 imperial gallon	= 277.274 cu in.
1 cubic foot of water	= 1728 cu in. = 7.480519 U. S. gallons = 6.232103 imperial gallons
1 cubic yard	= 27 cu ft = 46,656 cu in.
1 quart	= 2 pints
1 gallon	= 4 quarts
1 U. S. gallon	= 231 cu in. = 0.133681 cu ft = 0.83311, imperial gallon
1 barrel	= 31.5 gallons = 4.21 cu ft
1 U. S. bushel	= 1.2445 cu ft
1 fluid ounce	= 1.8047 cu in.
1 acre foot	= 43,560 cu ft = 1,613.3 cu yds = 3,630 cu ft
1 acre inch	= 133,681 cu ft = 3.0689 acre-ft
1 million U. S. gallons	= 133,681 cu ft
1 ft depth on 1 sq mi	= 27,878, 400 cu ft = 640 acre-ft

### Metric Units

1000 cu millimetres	= 1 cu centimetre
1000 cu centimetres	= 1 cu decimetre
1000 cu decimetres	= 1 cu metre
1000 cu metres	= 1 cu dekametre
1000 dekametres	= 1 hectometre
1000 cu hectometres	= 1 cu kilometre
1000 microlitres	= 1 millilitre = 1 cu centimetre
10 millilitres	= 1 centilitre
10 centilitres	= 1 decilitre
1000 millilitres	= 1 litre
100 centilitres	= 1 litre
100 litres	= 1 hectolitre
1000 litres	= 1 kilolitre = 1 cu metre
10 hectolitres	= 1 kilolitre

### Equivalents

1 cu in.	= 16.387 cu cm
1 cu ft	= 0.0283 cu m
1 cu yd	= 0.765 cu m
1 cu cm	= 0.0610 cu in.
1 cu m	= 35.3 cu ft = 1.308 cu yds
1 litre	= 61.023378 cu in. (about 1 quart) = 0.264170 U. S. liquid gallon = 0.2201 imperial gallon
1 U. S. liquid quart	= 0.946 litre
1 U. S. liquid gallon	= 3.785 litres

## WEIGHT (MASS)

### Ordinary Units

1 pound	= 16 ounces (avoirdupois)
1 ton	= 2000 lbs
1 long ton	= 2240 lbs
1 lb of water (39.1° F)	= 27.681217 cu in. = 0.016019 cu ft = 0.119832 U. S. gallon = 0.453617 liter

### Equivalents

1 kilogram	= 2.205 avoirdupois pounds
1 metric ton	= 0.984 gross or long ton = 1.102 net or short tons
1 avoirdupois pound	= 28.35 grams
1 avoirdupois	= 0.4536 kilogram

### To Convert

ounces into grams	<b>Multiply by</b> 28.3495
pounds into grams	453.6
pounds into kilograms	0.4536
tons into kilograms	1016.047
tahils into grams	37.799
kati into kilograms	0.60479
grains into grams	0.0648

### To Convert

grams into ounces	<b>Multiply by</b> 0.03527
grams into grains	15.4324
grams into tahil	0.02646
kilograms into pounds	2.2046
kilograms into tons	0.0009842
kilograms into katis	1.653
kilograms into stones	0.1575
kilograms into hundreweights	0.01968

## NON-METRIC TO METRIC LINEAR

### To Convert

inches into centimetres	<b>Multiply by</b> 2.540
inches into metres	2,540 x 10 <sup>6</sup>
inches into millimetres	25.4
feet into metres	0.3048
yards into metres	0.9144
miles into kilometres	1.609344
miles into metres	1609.344
feet into centimetres	30.48

## METRIC TO NON-METRIC LINEAR

### To Convert

millimetres into feet	<b>Multiply by</b> 3.281 x 10 <sup>3</sup>
millimetres into inches	0.03937
centimetres into inches	0.3937
metres into feet	3.281
metres into yards	1.09361
kilometres into yards	1093.61
kilometres into miles	0.62137

## VELOCITY

### To Convert

miles per hour into kilometres per hour	<b>Multiply by</b> 1.609344
feet per second into metres per second	0.3048
feet per second into centimetres per second	30.48
centimetres per second into feet per second	0.03281
metres per second into feet per minute	196.9
metres per second into feet per second	3.281
kilometres per hour into miles per hour	0.6214