

Units of Weight and Measure

(United States Customary and Metric)

Definitions and Tables of Equivalents



United States Department of Commerce

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UNITED STATES DEPARTMENT OF COMMERCE • Sinclair Weeks, *Secretary*

NATIONAL BUREAU OF STANDARDS • A. V. Astin, *Director*

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Units of Weight and Measure

(United States Customary and Metric)

Definitions and Tables of Equivalents

L. V. Judson

The units of length, area, volume, capacity, and mass in use in the United States are defined. Tables of interrelation and tables of equivalents for these units in the metric system and in the U. S. customary system are given. Such tables are needed in scientific, industrial, commercial, and other fields, and have been published by the United States Government for many years.

There is a section in which the fundamental equivalents are stated, one containing the approved spelling and abbreviation of each of the most common units of weight and measure, and one showing the status of the metric system in the United States. All of the tables and other material have been revised to conform to the definitions, equivalents, and usages current at the date of issue. The conversion tables are confined to simple units, excluding all compound units such as foot-pounds, pounds per cubic foot, and feet per second.

1. INTRODUCTION

This publication supersedes National Bureau of Standards Miscellaneous Publication 121, issued in January 1936. Necessary corrections have been made, and the text has been revised and rearranged. Tabular values involving the liter have been changed to the basis 1 liter=1.000 028 cubic decimeters; the international nautical mile of 1,852 meters, as adopted by the Departments of Defense and Commerce on July 1, 1954, has been substituted for the older U. S. nautical mile; and the information on the status of the metric system in the United States has been brought up to date.

In the construction of the tables in this publication, when the fundamental relation of the units furnished directly a reduction factor for use in determining the multiples of the units, this factor was used in its fundamental form, as, for example, that 1 meter=39.37 inches. Reduction factors which it was necessary to obtain, however, by multiplication, division, powers, or roots, etc., of the fundamental relations were usually carried out to a greater degree of accuracy than that to which it is usually possible to make measurements, for convenience in computing the multiples to the accuracy desired.

When the tables do not give the equivalent of any desired quantity directly and completely, the equivalent can usually be obtained, without the necessity of making a multiplication of these reduction factors, by using quantities from several tables, making a shift of decimal points, if necessary, and merely adding the results.

The supplementary metric units are formed by combining the words "meter", "gram", and "liter" with the six numerical prefixes, as in the following table:

Prefixes ¹	Meaning	Units ¹	
milli-	= <i>one-thousandth</i>	$\frac{1}{1000}$.001
centi-	= <i>one-hundredth</i>	$\frac{1}{100}$.01
deci-	= <i>one-tenth</i>	$\frac{1}{10}$.1
<i>Unit</i>	= <i>one</i>		1
deka-	= <i>ten</i>	$\frac{10}{1}$	10
hecto-	= <i>one hundred</i>	$\frac{100}{1}$	100
kilo-	= <i>one thousand</i>	$\frac{1000}{1}$	1000

Not all of the 18 possible combinations of the above prefixes and units are in common use; for example the dekameter and the hectometer are seldom found except in text books.

All lengths, areas, and cubic measures in the following tables are derived from the international meter, the basic relation between units of the United States customary and the metric systems being:

$$1 \text{ meter} = 39.37 \text{ inches},$$

contained in the law of July 28, 1866,¹ and set forth in the Mendenhall Order² of April 5, 1893, namely:

$$\frac{1 \text{ yard}}{1 \text{ meter}} = \frac{3600}{3937}.$$

All capacities are based on the equivalent 1 liter equals 1.000 028 cubic decimeters.³ The decimeter is equal to 3.937 inches in accordance with the legal equivalent of the meter given above. The gallon referred to in the tables is the United States gallon of 231 cubic inches. The bushel is the United States bushel of 2 150.42 cubic inches. These units must not be confused with the British units of the same name which differ from those used in the United States. The British gallon (277.42 cubic inches) is approximately 20 percent larger, and the British bushel (2 219.36 cubic inches) is 3 percent larger than the corresponding units used in this country.

All weights are derived from the International Kilogram, as authorized in the Mendenhall Order of April 5, 1893. The relation used is 1 avoirdupois pound = 453.592 427 7 grams.

2. FUNDAMENTAL EQUIVALENTS

In its original conception the meter was the fundamental unit of the metric system, and all units of length and capacity were to be derived directly from the meter which was intended to be equal to one ten-millionth of the earth's quadrant. Furthermore, it was originally planned that the unit of mass, the kilogram, should be identical with the mass of a cubic decimeter of water at its maximum density. At present, however, the units of length and mass are defined independently of these conceptions.

¹ United States Code, title 15, ch. 6, sec. 205 (Revised Statutes, sec. 3570).

² U. S. Coast and Geodetic Survey Bulletin 26, Apr. 5, 1893.

³ Formerly this relation was given as 1 liter = 1.000 027 cubic decimeters. See Guillaume, La Creation du Bureau International des Poids et Measures et son Oeuvre, Paris, 1927, pages 256 to 258, for reasons for the change.

The International Prototype Meter is kept at the International Bureau of Weights and Measures. By definition the meter now bears no definite relation to the earth's quadrant, but is the length of a certain platinum-iridium bar when supported in a definitely specified manner, at the temperature of melting ice, and at standard atmospheric pressure (760 millimeters of mercury). The kilogram is independently defined as the mass of a definite platinum-iridium standard, the International Prototype Kilogram, which is also kept at the International Bureau of Weights and Measures. The liter is defined as the volume of a kilogram of water, at standard atmospheric pressure, and at the temperature of its maximum density, approximately 4° C. The meter is thus the fundamental unit on which are based all metric standards and measurements of length and area, and of volumes derived from linear measurements.

A supplementary definition of the meter in terms of the wavelength of light was adopted provisionally by the Seventh General (International) Conference on Weights and Measures, in 1927. According to this definition, the relation⁴ for red cadmium light waves under specified conditions of temperature, pressure, and humidity is

$$1 \text{ meter} = 1\ 553\ 164.13 \text{ wavelengths.}$$

This corresponds to a wavelength (cadmium red) of

$$6\ 438.469\ 6 \times 10^{-7} \text{ millimeter}$$

The kilogram is the fundamental unit on which are based all metric standards of mass. The liter is a secondary or derived unit of capacity or volume. The liter is larger by about 28 parts per million than the cube of the tenth of the meter, i. e., the cubic decimeter—that is, 1 liter=1.000 028 cubic decimeters.

The conversion tables in this publication which involve the relative length of the yard and meter are based upon the relation:

$$1 \text{ meter} = 39.37 \text{ inches,}$$

contained in the act of Congress of 1866.⁵ From this relation it follows that 1 inch=25.400 05 millimeters (approximately).

For many years the simpler relation, 1 inch=25.4 millimeters has been used in engineering and industry throughout the civilized world.⁶ This relation has never been made official in the United States by the Congress or in Great Britain by Parliament.

3. DEFINITIONS OF UNITS

3.1. LENGTH

Fundamental Units

A meter (m) is a unit of length equal to the distance between the defining lines on the International Prototype Meter when this standard is at the temperature of melting ice (0° C).

A yard (yd) is a unit of length equal to $\frac{3600}{3937}$ of a meter.

Multiples and Submultiples

1 kilometer (km)=1 000 meters.

1 hectometer (hm)=100 meters.

1 dekameter (dkm)=10 meters.

1 decimeter (dm)=0.1 meter.

1 centimeter (cm)=0.01 meter.

⁴ J. R. Benoit, C. Fabry, and A. Perot, Nouvelle détermination du rapport des longueurs d'onde fondamentales avec l'unité métrique. *Trav. et Mém. Bur. Int. Poids et Mesures* 15, 131 (1913).

⁵ United States Code, title 15, sec. 205.

⁶ Conversion tables (ASA B48.1-1938), computed on the basis of 1 inch=25.4 mm exactly, may be obtained from the American Standards Association, New York, N. Y.

1 millimeter (mm)=0.001 meter.
1 micron (μ)=0.000 001 meter=0.001 millimeter.
1 millimicron ($m\mu$)=0.000 000 001 meter=0.001 micron.
1 angstrom (A) = .000 1 micron. = .1 millimicron.
1 statute mile = 8 furlongs=320 rods. = 1 760 yards=5 280 feet.
1 furlong= $\frac{1}{8}$ mile=40 rods=220 yards=660 feet.
1 rod= $5\frac{1}{2}$ yards=16 $\frac{1}{2}$ feet=25 links.
1 foot= $\frac{1}{3}$ yard=12 inches.
1 hand=4 inches.
1 inch= $\frac{1}{36}$ yard= $\frac{1}{12}$ foot.
1 line (button)= $\frac{1}{40}$ inch.
1 point (printers)=0.01 383 7 inch= $\frac{1}{12}$ inch (nearly).
1 mil= $\frac{1}{1000}$ inch.
1 chain (Gunter's)=4 rods=22 yards=66 feet=100 links.
1 link (Gunter's)= $\frac{1}{100}$ chain=7.92 inches.
1 U. S. nautical mile 1 sea mile 1 geographical mile }=1 853.248 meters=6 080.20 feet. ⁸
1 international nautical mile=1 852 meters=6 076.103 33 . . . feet. ⁸
1 fathom=6 feet=8 spans.
1 span= $\frac{1}{8}$ fathom=9 inches.

3.2. AREA

Fundamental Units

A square meter (m^2) is a unit of area equal to the area of a square the sides of which are 1 meter.

A square yard (yd^2) is a unit of area equal to the area of a square the sides of which are 1 yard.

Multiples and Submultiples

1 square kilometer (km^2)=1 000 000 square meters.
1 hectare (ha), or square hectometer (hm^2)=10 000 square meters.
1 are (a), or square dekameter (dkm^2)=100 square meters.
1 centare (ca)=1 square meter.
1 square decimeter (dm^2)=0.01 square meter.
1 square centimeter (cm^2)=0.000 1 square meter.
1 square millimeter (mm^2)=0.000 001 square meter.
1 square mile (mi^2) =640 acres=102 400 square rods. =3 097 600 square yards=27 878 400 square feet.
1 acre (acre)=10 square chains =160 square rods=4 840 square yards. =43 560 square feet.
1 square chain (ch^2) =16 square rods=484 square yards=4 356 square feet. =10 000 square links.
1 square link (l^2) =0.000 1 square chain=0.048 4 square yard. =0.435 6 square foot=62.726 4 square inches.
1 square rod (rd^2)=30.25 square yards=272.25 square feet=625 square links.
1 square foot (ft^2)= $\frac{1}{9}$ square yard=144 square inches.
1 square inch ($in.^2$)= $\frac{1}{144}$ square yard= $\frac{1}{1296}$ square foot

3.3. VOLUME

Fundamental Units

A cubic meter (m^3) is a unit of volume equal to a cube the edges of which are 1 meter.

A cubic yard (yd^3) is a unit of volume equal to a cube the edges of which are 1 yard.

⁷ The angstrom is defined basically as the unit such that 6 438.469 6 of these units equal the wavelength of the red radiation of cadmium under specified conditions.

⁸ Effective July 1, 1954, the International nautical mile as defined above was adopted, in lieu of the U. S. nautical mile, for use in the Departments of Defense and Commerce.

Multiples and Submultiples

- 1 cubic kilometer (km^3)=1 000 000 000 cubic meters.
- 1 cubic hectometer (hm^3)=1 000 000 cubic meters.
- 1 cubic dekameter (dkm^3)=1 000 cubic meters.
- 1 stere (s)=1 cubic meter.
- 1 cubic decimeter (dm^3)=0.001 cubic meter.
- 1 cubic centimeter (cm^3)=0.000 001 cubic meter=0.001 cubic decimeter.
- 1 cubic millimeter (mm^3)=0.000 000 001 cubic meter=0.001 cubic centimeter.
- 1 cubic foot (ft^3)= $\frac{1}{27}$ cubic yard.
- 1 cubic inch (in.^3)= $\frac{1}{466.56}$ cubic yard= $\frac{1}{728}$ cubic foot.
- 1 board foot (fbm)=144 cubic inches= $\frac{1}{12}$ cubic foot.
- 1 cord (cd)=128 cubic feet.

3.4. CAPACITY

Fundamental Units

A liter (liter) is a unit of capacity equal to the volume occupied by 1 kilogram of pure water at its maximum density (at a temperature of 4° C, practically) and under the standard atmospheric pressure (of 760 mm). It is equivalent in volume to 1.000 028 cubic decimeters.

A gallon (gal) is a unit of capacity equal to the volume of 231 cubic inches. It is used for the measurement of liquid commodities only.

A bushel (bu) is a unit of capacity equal to the volume of 2 150.42 cubic inches. It is used in the measurement of dry commodities only.⁹

Multiples and Submultiples

- 1 hectoliter (hl)=100 liters.
- 1 dekaliter (dkl)=10 liters.
- 1 deciliter (dl)=0.1 liter.
- 1 centiliter (cl)=0.01 liter.
- 1 milliliter (ml)=0.001 liter=1.000 028 cubic centimeters.
- 1 liquid quart (liq qt)= $\frac{1}{4}$ gallon=57.75 cubic inches.
- 1 liquid pint (liq pt)= $\frac{1}{8}$ gallon= $\frac{1}{2}$ liquid quart=28.875 cubic inches.
- 1 gill (gi)= $\frac{1}{32}$ gallon= $\frac{1}{4}$ liquid pint=7.218 75 cubic inches.
- 1 fluid ounce (fl oz)= $\frac{1}{128}$ gallon= $\frac{1}{16}$ liquid pint.
- 1 fluid dram (fl dr)= $\frac{1}{8}$ fluid ounce= $\frac{1}{128}$ liquid pint.
- 1 minim (min or m)= $\frac{1}{60}$ fluid dram= $\frac{1}{480}$ fluid ounce.
- 1 peck (pk)= $\frac{1}{4}$ bushel=537.605 cubic inches.
- 1 dry quart (dry qt)= $\frac{1}{2}$ bushel= $\frac{1}{8}$ peck=67.200 625 cubic inches.
- 1 dry pint (dry pt)= $\frac{1}{4}$ bushel= $\frac{1}{2}$ dry quart=33.600 312 5 cubic inches.
- 1 barrel, for fruits, vegetables, and other dry commodities, other than cranberries,¹⁰=7 056 cubic inches=105 dry quarts.
- 1 barrel for cranberries=5 826 cubic inches.¹¹

3.5. MASS

Fundamental Units

A kilogram (kg) is a unit of mass equal to the mass of the International Prototype Kilogram.

A gram (g) is a unit of mass equal to one-thousandth of the mass of the International Prototype Kilogram.

An avoirdupois pound (lb avdp) is a unit of mass equal to 0.453 592 427 7 kilogram.

A troy pound (lb t) is a unit of mass equal to $\frac{5760}{7000}$ of that of the avoirdupois pound.

⁹ This is the so-called stricken or struck bushel. A heaped bushel for apples of 2 747.715 cubic inches was established by the U. S. Court of Customs Appeals on Feb. 15, 1912, in United States v. Weber (no. 757). A heaped bushel, equivalent to 1 $\frac{1}{4}$ stricken bushels, is also recognized.

¹⁰ As fixed by United States standard barrel act (United States Code, title 15, ch. 6, sec. 234).

¹¹ As computed from dimensions fixed by United States standard barrel act, see above.

Multiples and Submultiples

- 1 metric ton (t)=1 000 kilograms.
- 1 hectogram (hg)=100 grams.
- 1 dekagram (dkg)=10 grams.
- 1 decigram (dg)=0.1 gram.
- 1 centigram (cg)=0.01 gram.
- 1 milligram (mg)=0.001 gram.
- 1 metric carat ¹² (c)=200 milligrams=0.2 gram.
- 1 avoirdupois ounce (oz avdp)= $\frac{1}{16}$ avoirdupois pound=437.5 grains.
- 1 avoirdupois dram (dr avdp)= $\frac{1}{256}$ avoirdupois pound= $\frac{1}{16}$ avoirdupois ounce.
- 1 grain (grain)= $\frac{1}{7000}$ avoirdupois pound= $\frac{1}{6760}$ troy pound.
- 1 apothecaries pound (lb ap)=1 troy pound= $\frac{5760}{7000}$ avoirdupois pound.
- 1 apothecaries or troy ounce (oz ap or ʒ, oz t)= $\frac{1}{12}$ troy pound= $\frac{480}{7000}$ avoirdupois pound=480 grains.
- 1 apothecaries dram (dr ap or ʒ)= $\frac{1}{96}$ apothecaries pound= $\frac{1}{8}$ apothecaries ounce=60 grains.
- 1 pennyweight (dwt)= $\frac{1}{20}$ troy ounce =24 grains.
- 1 apothecaries scruple (s ap or ℥)= $\frac{1}{3}$ apothecaries dram=20 grains.
- 1 short hundredweight (sh cwt)=100 avoirdupois pounds.
- 1 long hundredweight=112 avoirdupois pounds.
- 1 short ton=2 000 avoirdupois pounds.
- 1 long ton=2 240 avoirdupois pounds.

4. STANDARDS OF MEASUREMENT

Units of measurement should be distinguished from standards of measurement. Units of length are fixed distances, independent of any other consideration, while length standards are affected by the expansion and contraction resulting from changes of temperature of the material of which the standard is composed. It is therefore necessary to fix upon some temperature at which the distance between the defining lines or end surfaces of the standards shall be equal to the unit. The same is true of standards of capacity, which at some definite temperature contain a given number of units of volume.

The recommended standard temperature for commercial and industrial length standards is 20° C (68° F). Some metric standards, especially those made in Europe until recently, are intended to be correct at 0° C. In the past some length standards graduated in the customary units have been made to be correct at 62° F (16.67° C).

For measurements of high precision it is also necessary to specify the manner of support of the standards, whether at certain points only or throughout their entire length, and in the case of tapes it is also necessary to give the tension applied to the tape when in use.

In the United States the capacity standards, both metric and customary, are made to hold the specified volumes at 4° C. Standards of capacity are usually made of brass and the capacity at any other temperature may be computed by the use of the coefficient of cubical expansion of that material usually assumed to be 0.000 054 per degree centigrade. In the purchase and sale of liquids a more important consideration than the temperature of the measures is the temperature of the liquid when measured, for the reason that the large coefficient of expansion of many liquids makes the actual mass of a given volume delivered vary considerably with temperature.

While the temperature of a weight does not affect its mass, it is nevertheless important that when two weights are compared in air they both be at the same temperature as the air. If there is a difference between the temperature of the air and the weights, convection currents will be set up and the readings of the balance will be thereby affected. Also, since weights are buoyed up by the surrounding air by amounts dependent upon their volumes, it is desirable that the weights of any

¹² See Bureau of Standards Circular C43, The Metric Carat, for a discussion of the metric carat and tables of the relations of the metric carat to the old carat of 205.3 milligrams in use in this country previous to July 1, 1913.

set be of the same material. If two weights of the same density balance in air of a certain density they will balance in vacuo or in air of a different density.

Brass is the material most widely used for standard weights, although platinum and aluminum are quite commonly used for weights of 1 gram or less. In the absence of any knowledge as to the actual density of weights, those made of brass are assumed to have a density of 8.4 g/cm³ at 0° C, while those of platinum and of aluminum are assumed to have densities of 21.5 and 2.7 g/cm³, respectively.

5. SPELLING AND ABBREVIATION OF UNITS

The spelling of the names of units as adopted by the National Bureau of Standards is that given in the list below. The spelling of the metric units is in accordance with that given in the law of July 28, 1866, legalizing the metric system in the United States.

Following the name of each unit in the list below is given the abbreviation which the Bureau has adopted. Attention is particularly called to the following principles:

1. The period is omitted after all abbreviations of units, except where the abbreviation forms an English word.

2. The exponents “²” and “³” are used to signify “square” and “cubic”, respectively, instead of the abbreviations “sq” or “cu”, which are, however, frequently used in technical literature for the United States customary units. In conformity with this principle the abbreviation for cubic centimeter is “cm³” (instead of “cc” or “c cm”). The term “cubic centimeter”, as used in chemical work, is, in fact, a misnomer, since the unit actually used is the “milliliter”, of which the correct abbreviation is “ml” (see p. 1).

3. The use of the same abbreviation for both singular and plural is recommended. This practice is already established in expressing metric units and is in accordance with the spirit and chief purpose of abbreviations.

4. It is also suggested that, unless all the text is printed in capital letters, only small letters be used for abbreviations, except in such case as, A for angstrom, etc., where the use of capital letters is general.

5.1. LIST OF THE MOST COMMON UNITS OF WEIGHT AND MEASURE AND THEIR ABBREVIATIONS

Unit	Abbreviation	Unit	Abbreviation	Unit	Abbreviation
acre	acre	dram, avoirdupois	dr avdp	ounce, apothecaries	oz ap or ʒ
angstrom	A	dram, fluid	fl dr	ounce, avoirdupois	oz avdp
are	a	fathom	fath	ounce, fluid	fl oz
avoirdupois	avdp	foot	ft	ounce, troy	oz t
barrel	bbl	furlong	fur.	peck	pk
board foot	fbd	gallon	gal	pennyweight	dwt
bushel	bu	grain	grain	pint	pt
carat	c	gram	g	pound	lb
centare	ca	hectare	ha	pound, apothecaries	lb ap
centigram	cg	hectogram	hg	pound, avoirdupois	lb avdp
centiliter	cl	hectoliter	hl	pound, troy	lb t
centimeter	cm	hectometer	hm	quart	qt
chain	ch	hogshead	hhd	rod	rd
cubic centimeter	cm ³	hundredweight	cwt	scruple, apothecaries	s ap or ʒ
cubic decimeter	dm ³	inch	in.	square centimeter	cm ²
cubic dekameter	dkm ³	kilogram	kg	square chain	ch ²
cubic foot	ft ³	kiloliter	kl	square decimeter	dm ²
cubic hectometer	hm ³	kilometer	km	square dekameter	dkm ²
cubic inch	in. ³	link	li	square foot	ft ²
cubic kilometer	km ³	liquid	liq	square hectometer	hm ²
cubic meter	m ³	liter	liter	square inch	in. ²
cubic mile	mi ³	meter	m	square kilometer	km ²
cubic millimeter	mm ³	metric ton	t	square link	li ²
cubic yard	yd ³	microgram*	μg	square meter	m ²
decigram	dg	microinch	μin.	square mile	mi ²
deciliter	dl	microliter*	μl	square millimeter	mm ²
decimeter	dm	micron	μ	square rod	rd ²
decistere	ds	mile	mi	square yard	yd ²
dekagram	dkg	milligram	mg	stere	s
dekaliter	dkl	milliliter	ml	ton	ton
dekameter	dkm	millimeter	mm	ton, metric	t
dekastere	dks	millimicron	μm	troy	t
dram	dr	minim	min	yard	yd
dram, apothecaries	dr ap or ʒ	ounce	oz		

*The abbreviations γ and λ for microgram and microliter, respectively, are advocated by some authorities.

6. TABLES OF INTERRELATION

6.1. UNITS OF

Units	Inches	Links	Feet	Yards	Rods
1 inch =	1	0.126 263	0.083 333 3	0.027 777 8	0.005 050 51
1 link =	7.92	1	0.66	0.22	0.04
1 foot =	12	1.515 152	1	0.333 333	0.060 606 1
1 yard =	36	4.545 45	3	1	0.181 818
1 rod =	198	25	16.5	5.5	1
1 chain =	792	100	66	22	4
1 mile =	63 360	8000	5280	1760	320
1 centimeter =	0.3937	0.049 709 60	0.032 808 33	0.010 936 111	0.001 988 384
1 meter =	39.37	4.970 960	3.280 833	1.093 611 1	0.198 838 4

6.2. UNITS OF

Units	Square inches	Square links	Square feet	Square yards	Square rods	Square chains
1 square inch =	1	0.015 942 3	0.006 944 44	0.000 771 605	0.000 025 507 6	0.000 001 594 23
1 square link =	62.7264		1	0.4356	0.0484	0.0016
1 square foot =	144	2.295 684		1	0.111 111 1	0.003 673 09
1 square yard =	1296	20.6612		9	1	0.033 057 85
1 square rod =	39 204	625	272.25	30.25	1	0.0625
1 square chain =	627 264	10 000	4356	484	16	1
1 acre =	6 272 640	100 000	43 560	4840	160	10
1 square mile =	4 014 489 600	64 000 000	27 878 400	3 097 600	102 400	6400
1 square centimeter =	0.154 999 69	0.002 471 04	0.001 076 387	0.000 119 598 5	0.000 003 953 67	0.000 000 247 104
1 square meter =	1549.9969	24.7104	10.763 87	1.195 985	0.039 536 7	0.002 471 04
1 hectare =	15 499 969	247 104	107 638.7	11 959.85	395.367	24.7104

6.3. UNITS OF

Units	Cubic inches	Cubic feet	Cubic yards
1 cubic inch =	1	0.000 578 704	0.000 021 433 47
1 cubic foot =	1728	1	0.037 037 0
1 cubic yard =	46 656	27	1
1 cubic centimeter =	0.061 023 38	0.000 035 314 45	0.000 001 307 94
1 cubic decimeter =	61.023 38	0.035 314 45	0.001 307 943
1 cubic meter =	61 023.38	35.314 45	1.307 942 8

6.4. UNITS OF CAPACITY

Units	Minims	Fluid drams	Fluid ounces	Gills	Liquid pints
1 minim =	1	0.016 666 7	0.002 083 33	0.000 520 833	0.000 130 208
1 fluid dram =	60	1	0.125	0.031 25	0.007 812 5
1 fluid ounce =	480	8	1	0.25	0.0625
1 gill =	1920	32	4	1	0.25
1 liquid pint =	7680	128	16	4	1
1 liquid quart =	15 360	256	32	8	2
1 gallon =	61 440	1024	128	32	8
1 milliliter =	16.2311	0.270 518	0.033 814 8	0.008 453 69	0.002 113 42
1 liter =	16 231.1	270.518	33.8148	8.453 69	2.113 42
1 cubic inch =	265.974	4.432 90	0.554 113	0.138 528	0.034 632 0
1 cubic foot =	459 603.1	7660.052	957.506 5	239.376 6	59.844 16

OF UNITS OF MEASUREMENT

LENGTH

Chains	Miles	Centimeters	Meters	Units
0.001 262 63	0.000 015 782 8	2.540 005	0.025 400 05	=1 inch
0.01	0.000 125	20.116 84	0.201 168 4	=1 link
0.015 151 5	0.000 189 393 9	30.480 06	0.304 800 6	=1 foot
0.045 454 5	0.000 568 182	91.440 18	0.914 401 8	=1 yard
0.25	0.003 125	502.9210	5.029 210	=1 rod
1	0.0125	2011.684	20.116 84	=1 chain
80	1	160 934.72	1609.3472	=1 mile
0.000 497 096 0	0.000 006 213 699	1	0.01	=1 centimeter
0.049 709 60	0.000 621 369 9	100	1	=1 meter

AREA

Acres	Square miles	Square centimeters	Square meters	Hectares	Units
0.000 000 159 423	0.000 000 000 249 1	6.451 626	0.000 645 162 6	0.000 000 064 516	=1 square inch
0.000 01	0.000 000 015 625	404.6873	0.040 468 73	0.000 004 046 87	=1 square link
0.000 022 956 8	0.000 000 035 870 1	929.0341	0.092 903 41	0.000 009 290 34	=1 square foot
0.000 206 612	0.000 000 322 831	8361.307	0.836 130 7	0.000 083 613 1	=1 square yard
0.006 25	0.000 009 765 625	252 929.5	25.292 95	0.002 529 295	=1 square rod
0.1	0.000 156 25	4 046 873	404.6873	0.040 468 7	=1 square chain
1	0.001 562 5	40 468 726	4046.873	0.404 687	=1 acre
640	1	25 899 984 703	2 589 998	258.9998	=1 square mile
0.000 000 024 710 4	0.000 000 000 038 610 06	1	0.00001	0.000 000 01	=1 square centimeter
0.000 247 104	0.000 000 386 100 6	10 000	1	0.0001	=1 square meter
2.471 04	0.003 861 006	100 000 000	10 000	1	=1 hectare

VOLUME

Cubic centimeters	Cubic decimeters	Cubic meters	Units
16.387 162	0.016 387 16	0.000 016 387 16	=1 cubic inch
28 317.016	28.317 016	0.028 317 016	=1 cubic foot
764 559.4	764.5594	0.764 559 4	=1 cubic yard
1	0.001	0.000 001	=1 cubic centimeter
1 000	1	0.001	=1 cubic decimeter
1 000 000	1000	1	=1 cubic meter

LIQUID MEASURE

Liquid quarts	Gallons	Milliliters	Liters	Cubic inches	Cubic feet	Units
0.000 065 104	0.000 016 276	0.061 610 2	0.000 061 610 2	0.003 759 77	0.000 002 175 79	=1 minimum
0.003 906 25	0.000 976 562	3.696 61	0.003 696 61	0.225 586	0.000 130 547	=1 fluid dram
0.031 25	0.007 812 5	29.5729	0.029 572 9	1.804 69	0.001 044 38	=1 fluid ounce
0.125	0.031 25	118.292	0.118 292	7.218 75	0.004 177 52	=1 gill
0.5	0.125	473.166	0.473 166	28.875	0.016 710 1	=1 liquid pint
1	0.25	946.332	0.946 332	57.75	0.033 420 1	=1 liquid quart
4	1	3785.329	3.785 329	231	0.133 680 6	=1 gallon
0.001 056 71	0.000 264 178	1	0.001	0.061 025 1	0.000 035 315 4	=1 milliliter
1.056 71	0.264 178	1000	1	61.025 1	0.035 315 4	=1 liter
0.017 316 0	0.004 329 00	16.3867	0.016 386 7	1	0.000 578 703 7	=1 cubic inch
29.922 08	7.480 519 5	28 316.22	28.316 22	1728	1	=1 cubic foot.

6.5. UNITS OF CAPACITY

Units	Dry pints	Dry quarts	Pecks	Bushels
1 dry pint =	1	0.5	0.0625	0.015 625
1 dry quart =	2	1	0.125	0.031 25
1 peck =	16	8	1	0.25
1 bushel =	64	32	4	1
1 liter =	1.816 21	0.908 103	0.113 513	0.028 378
1 dekaliter =	18.1621	9.081 03	1.135 13	0.283 78
1 cubic inch =	0.029 761 6	0.014 880 8	0.001 860 10	0.000 465 025
1 cubic foot =	51.428 093	25.714 047	3.214 255 8	0.803 563 95

6.6. UNITS OF MASS NOT GREATER

Units	Grains	Apothecaries scruples	Pennyweights	Avoirdupois drams	Apothecaries drams	Avoirdupois ounces
1 grain =	1	0.05	0.041 666 67	0.036 571 43	0.016 666 7	0.002 285 71
1 apoth. scruple =	20	1	0.833 333 3	0.731 428 6	0.333 333	0.045 714 3
1 pennyweight =	24	1.2	1	0.877 714 3	0.4	0.054 857 1
1 avdp. dram =	27.343 75	1.367 187 5	1.139 323	1	0.455 729 2	0.0625
1 apoth. dram =	60	3	2.5	2.194 286	1	0.137 142 9
1 avdp. oz. =	437.5	21.875	18.229 17	16	7.291 67	1
1 apoth. or troy oz. =	480	24	20	17.554 28	8	1.097 142 9
1 apoth. or troy lb. =	5760	288	240	210.6514	96	13.165 714
1 avdp. lb. =	7000	350	291.6667	256	116.6667	16
1 milligram =	0.015 432 356	0.000 771 618	0.000 643 014 8	0.000 564 383 3	0.000 257 205 9	0.000 035 273 96
1 gram =	15.432 356	0.771 618	0.643 014 85	0.564 383 3	0.257 205 9	0.035 273 96
1 kilogram =	15 432.356	771.6178	643.014 85	564.383 32	257.205 94	35.273 96

6.7. UNITS OF MASS NOT LESS

Units	Avoirdupois ounces	Avoirdupois pounds	Short hundred-weights	Short tons
1 avoirdupois ounce =	1	0.0625	0.000 625	0.000 031 25
1 avoirdupois pound =	16	1	0.01	0.0005
1 short hundredweight =	1600	100	1	0.05
1 short ton =	32 000	2000	20	1
1 long ton =	35 840	2240	22.4	1.12
1 kilogram =	35.273 957	2.204 622 34	0.022 046 223	0.001 102 311 2
1 metric ton =	35 273.957	2204.622 34	22.046 223	1.102 311 2

DRY MEASURE

Liters	Dekaliters	Cubic inches	Cubic feet	Units
0.550 598	0.055 059 8	33.600 312 5	0.019 444 63	=1 dry pint
1.101 197	0.110 119 7	67.200 625	0.038 889 25	=1 dry quart
8.809 57	0.880 957	537.605	0.311 114	=1 peck
35.2383	3.523 83	2150.42	1.244 456	=1 bushel
1	0.1	61.0251	0.035 315 4	=1 liter
10	1	610.251	0.353 154	=1 dekaliter
0.016 386 7	0.001 638 67	1	0.000 578 703 7	=1 cubic inch
28.316 22	2.831 622	1728	1	=1 cubic foot

THAN POUNDS AND KILOGRAMS

Apothecaries or troy ounces	Apothecaries or troy pounds	Avoirdupois pounds	Milligrams	Grams	Kilograms	Units
0.002 083 33	0.000 173 611 1	0.000 142 857 1	64.798 918	0.064 798 918	0.000 064 798 9	=1 grain
0.041 666 7	0.003 472 222	0.002 857 143	1295.9784	1.295 978 4	0.001 295 978	=1 apoth. scruple
0.05	0.004 166 667	0.003 428 571	1555.1740	1.555 174 0	0.001 555 174	=1 pennyweight
0.056 966 146	0.004 747 178 8	0.003 906 25	1771.8454	1.771 845 4	0.001 771 845	=1 avdp. dram
0.125	0.010 416 667	0.008 571 429	3887.9351	3.887 935 1	0.003 887 935	=1 apoth. dram
0.911 458 3	0.075 954 861	0.0625	28 349.527	28.349 527	0.028 349 53	=1 avdp. ounce
1	0.083 333 33	0.068 571 43	31 103.481	31.103 481	0.031 103 48	=1 apoth. or troy ounce
12	1	0.822 857 1	373 241.77	373.241 77	0.373 241 77	=1 apoth. or troy pound
14.583 333	1.215 277 8	1	453 592.4277	453.592 4277	0.453 592 427 7	=1 avdp. pound
0.000 032 150 74	0.000 002 679 23	0.000 002 204 62	1	0.001	0.000 001	=1 milligram
0.032 150 74	0.002 679 23	0.002 204 62	1000	1	0.001	=1 gram
32.150 742	2.679 228 5	2.204 622 341	1 000 000	1000	1	=1 kilogram

THAN AVOIRDUPOIS OUNCES

Long tons	Kilograms	Metric tons	Units
0.000 027 901 79	0.028 349 53	0.000 028 349 53	=1 avoirdupois ounce
0.000 446 428 6	0.453 592 427 7	0.000 453 592 43	=1 avoirdupois pound
0.044 642 86	45.359 243	0.045 359 243	=1 short hundredweight
0.892 857 1	907.184 86	0.907 184 86	=1 short ton
1	1016.047 04	1.016 047 04	=1 long ton
0.000 984 206 4	1	0.001	=1 kilogram
0.984 206 40	1000	1	=1 metric ton

7. COMPARISON OF METRIC AND CUSTOMARY UNITS FROM 1 TO 9

7.1. LENGTH

Inches (in.)	Milli-meters (mm)	Feet (ft)	Meters (m)	Yards (yd)	Meters (m)	Rods (rd)	Meters (m)	U.S. miles (mi)	Kilometers (km)
1= 25.4001		1= 0.304 801		1= 0.914 402		1= 5.029 21		1= 1.609 347	
2= 50.8001		2= 0.609 601		2= 1.828 804		2= 10.058 42		2= 3.218 694	
3= 76.2002		3= 0.914 402		3= 2.743 205		3= 15.087 63		3= 4.828 042	
4= 101.6002		4= 1.219 202		4= 3.657 607		4= 20.116 84		4= 6.437 389	
5= 127.0003		5= 1.524 003		5= 4.572 009		5= 25.146 05		5= 8.046 736	
6= 152.4003		6= 1.828 804		6= 5.486 411		6= 30.175 26		6= 9.656 083	
7= 177.8004		7= 2.133 604		7= 6.400 813		7= 35.204 47		7= 11.265 431	
8= 203.2004		8= 2.438 405		8= 7.315 215		8= 40.233 68		8= 12.874 778	
9= 228.6005		9= 2.743 205		9= 8.229 616		9= 45.262 89		9= 14.484 125	
0.039 37=1		3.280 83=1		1.093 611=1		0.198 838=1		0.621 370=1	
0.078 74=2		6.561 67=2		2.187 222=2		0.397 677=2		1.242 740=2	
0.118 11=3		9.842 50=3		3.280 833=3		0.596 515=3		1.864 110=3	
0.157 48=4		13.123 33=4		4.374 444=4		0.795 354=4		2.485 480=4	
0.196 85=5		16.404 17=5		5.468 056=5		0.994 192=5		3.106 850=5	
0.236 22=6		19.685 00=6		6.561 667=6		1.193 030=6		3.728 220=6	
0.275 59=7		22.965 83=7		7.655 278=7		1.391 869=7		4.349 590=7	
0.314 96=8		26.246 67=8		8.748 889=8		1.590 707=8		4.970 960=8	
0.354 33=9		29.527 50=9		9.842 500=9		1.789 545=9		5.592 330=9	

7.2. AREA

Square inches (in. ²)	Square centimeters (cm ²)	Square feet (ft ²)	Square meters (m ²)	Square yards (yd ²)	Square meters (m ²)	Acres (acre)	Hectares (ha)	Square miles (mi ²)	Square kilometers (km ²)
1= 6.452		1= 0.092 90		1= 0.8361		1= 0.4047		1= 2.5900	
2= 12.903		2= 0.185 81		2= 1.6723		2= 0.8094		2= 5.1800	
3= 19.355		3= 0.278 71		3= 2.5084		3= 1.2141		3= 7.7700	
4= 25.807		4= 0.371 61		4= 3.3445		4= 1.6187		4= 10.3600	
5= 32.258		5= 0.464 52		5= 4.1807		5= 2.0234		5= 12.9500	
6= 38.710		6= 0.557 42		6= 5.0168		6= 2.4281		6= 15.5400	
7= 45.161		7= 0.650 32		7= 5.8529		7= 2.8328		7= 18.1300	
8= 51.613		8= 0.743 23		8= 6.6890		8= 3.2375		8= 20.7200	
9= 58.065		9= 0.836 13		9= 7.5252		9= 3.6422		9= 23.3100	
0.155 00=1		10.764=1		1.1960=1		2.471=1		0.3861=1	
0.310 00=2		21.528=2		2.3920=2		4.942=2		0.7722=2	
0.465 00=3		32.292=3		3.5880=3		7.413=3		1.1583=3	
0.620 00=4		43.055=4		4.7839=4		9.884=4		1.5444=4	
0.775 00=5		53.819=5		5.9799=5		12.355=5		1.9305=5	
0.930 00=6		64.583=6		7.1759=6		14.826=6		2.3166=6	
1.085 00=7		75.347=7		8.3719=7		17.297=7		2.7027=7	
1.240 00=8		86.111=8		9.5679=8		19.768=8		3.0888=8	
1.395 00=9		96.875=9		10.7639=9		22.239=9		3.4749=9	

7.3. VOLUME

Cubic inches (in. ³)	Cubic centimeters (cm ³)	Cubic feet (ft ³)	Cubic meters (m ³)	Cubic yards (yd ³)	Cubic meters (m ³)	Cubic inches (in. ³)	Liters (liter)	Cubic feet (ft ³)	Liters (liter)
1= 16.3872		1= 0.028 317		1= 0.7646		1= 0.016 386 7		1= 28.316	
2= 32.7743		2= 0.056 634		2= 1.5291		2= 0.032 773 4		2= 56.632	
3= 49.1615		3= 0.084 951		3= 2.2937		3= 0.049 160 1		3= 84.949	
4= 65.5486		4= 0.113 268		4= 3.0582		4= 0.065 546 8		4= 113.265	
5= 81.9358		5= 0.141 585		5= 3.8228		5= 0.081 933 5		5= 141.581	
6= 98.3230		6= 0.169 902		6= 4.5874		6= 0.098 320 2		6= 169.897	
7= 114.7101		7= 0.198 219		7= 5.3519		7= 0.114 706 9		7= 198.214	
8= 131.0973		8= 0.226 536		8= 6.1165		8= 0.131 093 6		8= 226.530	
9= 147.4845		9= 0.254 853		9= 6.8810		9= 0.147 480 3		9= 254.846	
0.061 02=1		35.314=1		1.3079=1		61.025=1		0.035 315=1	
0.122 05=2		70.629=2		2.6159=2		122.050=2		0.070 631=2	
0.183 07=3		105.943=3		3.9238=3		183.075=3		0.105 946=3	
0.244 09=4		141.258=4		5.2318=4		244.100=4		0.141 262=4	
0.305 12=5		176.572=5		6.5397=5		305.125=5		0.176 577=5	
0.366 14=6		211.887=6		7.8477=6		366.151=6		0.211 893=6	
0.427 16=7		247.201=7		9.1556=7		427.176=7		0.247 208=7	
0.488 19=8		282.516=8		10.4635=8		488.207=8		0.282 524=8	
0.549 21=9		317.830=9		11.7715=9		549.226=9		0.317 839=9	

7.4. CAPACITY—LIQUID MEASURE

U. S. fluid drams (fl dr)	Milliliters (ml)	U. S. fluid ounces (fl oz)	Milliliters (ml)	U. S. liquid pints (pt)	Liters (liter)	U. S. liquid quarts (qt)	Liters (liter)	U. S. gallons (gal)	Liters (liter)
1 = 3.6966		1 = 29.573		1 = 0.473 17		1 = 0.946 33		1 = 3.785 33	
2 = 7.3932		2 = 59.146		2 = 0.946 33		2 = 1.892 66		2 = 7.570 66	
3 = 11.0898		3 = 88.719		3 = 1.419 50		3 = 2.839 00		3 = 11.355 99	
4 = 14.7864		4 = 118.292		4 = 1.892 66		4 = 3.785 33		4 = 15.141 31	
5 = 18.4830		5 = 147.864		5 = 2.365 83		5 = 4.731 66		5 = 18.926 64	
6 = 22.1797		6 = 177.437		6 = 2.839 00		6 = 5.677 99		6 = 22.711 97	
7 = 25.8763		7 = 207.010		7 = 3.312 16		7 = 6.624 32		7 = 26.497 30	
8 = 29.5729		8 = 236.583		8 = 3.785 33		8 = 7.570 66		8 = 30.282 63	
9 = 33.2695		9 = 266.156		9 = 4.258 49		9 = 8.516 99		9 = 34.067 96	
0.270 52=1		0.033 815=1		2.1134=1		1.056 71=1		0.264 18=1	
0.541 04=2		0.067 630=2		4.2268=2		2.113 42=2		0.528 36=2	
0.811 55=3		0.101 444=3		6.3403=3		3.170 13=3		0.792 53=3	
1.082 07=4		0.135 259=4		8.4537=4		4.226 85=4		1.056 71=4	
1.352 59=5		0.169 074=5		10.5671=5		5.283 56=5		1.320 89=5	
1.623 11=6		0.202 889=6		12.6805=6		6.340 27=6		1.585 07=6	
1.893 63=7		0.236 703=7		14.7940=7		7.396 98=7		1.849 25=7	
2.164 15=8		0.270 518=8		16.9074=8		8.453 69=8		2.113 42=8	
2.434 66=9		0.304 333=9		19.0208=9		9.510 40=9		2.377 60=9	

7.5. CAPACITY—DRY MEASURE

U. S. dry quarts (qt)	Liters (liter)	U. S. pecks (pk)	Liters (liter)	U. S. pecks (pk)	Dekaliters (dkl)	U. S. bushels (bu)	Hecto- liters (hl)	U. S. bushels per acre	Hecto- liters per hectare
1 = 1.1012		1 = 8.810		1 = 0.8810		1 = 0.352 38		1 = 0.8708	
2 = 2.2024		2 = 17.619		2 = 1.7619		2 = 0.704 77		2 = 1.7415	
3 = 3.3036		3 = 26.429		3 = 2.6429		3 = 1.057 15		3 = 2.6123	
4 = 4.4048		4 = 35.238		4 = 3.5238		4 = 1.409 53		4 = 3.4830	
5 = 5.5060		5 = 44.048		5 = 4.4048		5 = 1.761 91		5 = 4.3538	
6 = 6.6072		6 = 52.857		6 = 5.2857		6 = 2.114 30		6 = 5.2245	
7 = 7.7084		7 = 61.667		7 = 6.1667		7 = 2.466 68		7 = 6.0953	
8 = 8.8096		8 = 70.477		8 = 7.0477		8 = 2.819 06		8 = 6.9660	
9 = 9.9108		9 = 79.286		9 = 7.9286		9 = 3.171 45		9 = 7.8368	
0.9081=1		0.113 51=1		1.1351=1		2.8378=1		1.1484=1	
1.8162=2		0.227 03=2		2.2703=2		5.6756=2		2.2969=2	
2.7243=3		0.340 54=3		3.4054=3		8.5135=3		3.4453=3	
3.6324=4		0.454 05=4		4.5405=4		11.3513=4		4.5937=4	
4.5405=5		0.567 56=5		5.6756=5		14.1891=5		5.7422=5	
5.4486=6		0.681 08=6		6.8108=6		17.0269=6		6.8906=6	
6.3567=7		0.794 59=7		7.9459=7		19.8648=7		8.0390=7	
7.2648=8		0.908 10=8		9.0810=8		22.7026=8		9.1874=8	
8.1729=9		1.021 62=9		10.2162=9		25.5404=9		10.3359=9	

7.6. MASS

Grains	Grams (gram)	Apothe- caries drams (dr ap or 3)	Grams (g)	Troy ounces (oz t)	Grams (g)	Avoirdupois ounces (oz avdp)	Grams (g)	Avoirdupois pounds (lb avdp)	Kilo- grams (kg)
1 = 0.064 799		1 = 3.8879		1 = 31.103		1 = 28.350		1 = 0.453 59	
2 = 0.129 598		2 = 7.7759		2 = 62.207		2 = 56.699		2 = 0.907 18	
3 = 0.194 397		3 = 11.6638		3 = 93.310		3 = 85.049		3 = 1.360 78	
4 = 0.259 196		4 = 15.5517		4 = 124.414		4 = 113.398		4 = 1.814 37	
5 = 0.323 995		5 = 19.4397		5 = 155.517		5 = 141.748		5 = 2.267 96	
6 = 0.388 794		6 = 23.3276		6 = 186.621		6 = 170.097		6 = 2.721 55	
7 = 0.453 592		7 = 27.2155		7 = 217.724		7 = 198.447		7 = 3.175 15	
8 = 0.518 391		8 = 31.1035		8 = 248.828		8 = 226.796		8 = 3.628 74	
9 = 0.583 190		9 = 34.9914		9 = 279.931		9 = 255.146		9 = 4.082 33	
15.4324=1		0.257 21=1		0.032 151=1		0.035 274=1		2.204 62=1	
30.8647=2		0.514 41=2		0.064 301=2		0.070 548=2		4.409 24=2	
46.2971=3		0.771 62=3		0.096 452=3		0.105 822=3		6.613 87=3	
61.7294=4		1.028 82=4		0.128 603=4		0.141 096=4		8.818 49=4	
77.1618=5		1.286 03=5		0.160 754=5		0.176 370=5		11.023 11=5	
92.5941=6		1.543 24=6		0.192 904=6		0.211 644=6		13.227 73=6	
108.0265=7		1.800 44=7		0.225 055=7		0.246 918=7		15.432 36=7	
123.4589=8		2.057 65=8		0.257 206=8		0.282 192=8		17.636 98=8	
138.8912=9		2.314 85=9		0.289 357=9		0.317 466=9		19.841 60=9	

**7.7. COMPARISON OF THE VARIOUS TONS AND POUNDS IN USE IN
THE UNITED STATES (FROM 1 TO 9 UNITS)**

Troy pounds	Avoirdupois pounds	Kilograms	Short tons	Long tons	Metric tons
1	0.822 857	0.373 24	0.000 411 43	0.000 367 35	0.000 373 24
2	1.645 71	0.746 48	0.000 822 86	0.000 734 69	0.000 746 48
3	2.468 57	1.119 73	0.001 234 29	0.001 102 04	0.001 119 73
4	3.291 43	1.492 97	0.001 645 71	0.001 469 39	0.001 492 97
5	4.114 29	1.866 21	0.002 057 14	0.001 836 73	0.001 866 21
6	4.937 14	2.239 45	0.002 468 57	0.002 204 08	0.002 239 45
7	5.760 00	2.612 69	0.002 880 00	0.002 571 43	0.002 612 69
8	6.582 86	2.985 93	0.003 291 43	0.002 938 78	0.002 985 93
9	7 405 71	3.359 18	0.003 702 86	0.003 306 12	0.003 359 18
1.215 28	1	0.453 59	0.0005	0.000 446 43	0.000 453 59
2.430 56	2	0.907 18	0.0010	0.000 892 86	0.000 907 18
3.645 83	3	1.360 78	0.0015	0.001 339 29	0.001 360 78
4.861 11	4	1.814 37	0.0020	0.001 785 71	0.001 814 37
6.076 39	5	2.267 96	0.0025	0.002 232 14	0.002 267 96
7.291 67	6	2.721 55	0.0030	0.002 678 57	0.002 721 55
8.506 94	7	3.175 15	0.0035	0.003 125 00	0.003 175 15
9.722 22	8	3.628 74	0.0040	0.003 571 43	0.003 628 74
10.937 50	9	4.082 33	0.0045	0.004 017 86	0.004 082 33
2.679 23	2.204 62	1	0.001 102 31	0.000 984 21	0.001
5.358 46	4.409 24	2	0.002 204 62	0.001 968 41	0.002
8.037 69	6.613 87	3	0.003 306 93	0.002 952 62	0.003
10.716 91	8.818 49	4	0.004 409 24	0.003 936 83	0.004
13.396 14	11.023 11	5	0.005 511 56	0.004 921 03	0.005
16.075 37	13.227 73	6	0.006 613 87	0.005 905 24	0.006
18.754 60	15.432 36	7	0.007 716 18	0.006 889 44	0.007
21.433 83	17.636 98	8	0.008 818 49	0.007 873 65	0.008
24.113 06	19.841 60	9	0.009 920 80	0.008 857 86	0.009
2430.56	2000	907.18	1	0.892 86	0.907 18
4861.11	4000	1814.37	2	1.785 71	1.814 37
7291.67	6000	2721.55	3	2.678 57	2.721 55
9722.22	8000	3628.74	4	3.571 43	3.628 74
12 152. 78	10 000	4535.92	5	4.464 29	4.535 92
14 583. 33	12 000	5443.11	6	5.357 14	5.443 11
17 013. 89	14 000	6350.29	7	6.250 00	6.350 29
19 444. 44	16 000	7257.48	8	7.142 86	7.257 48
21 875. 00	18 000	8164.66	9	8.035 71	8.164 66
2722.22	2240	1016.05	1.12	1	1.016 05
5444.44	4480	2032.09	2.24	2	2.032 09
8166.67	6720	3048.14	3.36	3	3.048 14
10 888.89	8960	4064.19	4.48	4	4.064 19
13 611.11	11 200	5080.24	5.60	5	5.080 24
16 333.33	13 440	6096.28	6.72	6	6.096 28
19 055.56	15 680	7112.32	7.84	7	7.112 32
21 777.78	17 920	8128.38	8.96	8	8.128 38
24 500.00	20 160	9144.42	10.08	9	9.144 42
2679.23	2204.62	1000	1.102 31	0.984 21	1
5358.46	4409.24	2000	2.204 62	1.968 41	2
8037.69	6613.87	3000	3.306 93	2.952 62	3
10 716.91	8818.49	4000	4.409 24	3.936 83	4
13 396.14	11 023.11	5000	5.511 56	4.921 03	5
16 075.37	13 227.73	6000	6.613 87	5.905 24	6
18 754.60	15 432.36	7000	7.716 18	6.889 44	7
21 433.83	17 636.98	8000	8.818 49	7.873 65	8
24 113.06	19 841.60	9000	9.920 80	8.857 86	9

8. SPECIAL TABLES

LENGTH—INCHES AND MILLIMETERS—EQUIVALENTS OF DECIMAL AND BINARY FRACTIONS OF AN INCH IN MILLIMETERS

From 1/64 to 1 Inch

$\frac{1}{16}$'s	$\frac{1}{4}$'s	8ths	16ths	32ds	64ths	Millimeters	Decimals of an inch	Inch	$\frac{1}{16}$'s	$\frac{1}{4}$'s	8ths	16ths	32ds	64ths	Millimeters	Decimals of an inch
				1	2	1 = 0.397	0.015625								33 = 13.097	0.515625
				1	2	2 = .794	.03125								34 = 13.494	.53125
				1	2	3 = 1.191	.046875								35 = 13.891	.546875
				1	2	4 = 1.588	.0625								36 = 14.288	.5625
					5	= 1.984	.078125								37 = 14.684	.578125
					3	6 = 2.381	.09375								38 = 15.081	.59375
					1	2	7 = 2.778	.109375						39 = 15.478	.609375	
					4	8 = 3.175	.1250							40 = 15.875	.625	
					9	= 3.572	.140625							41 = 16.272	.640625	
					5	10 = 3.969	.15625							42 = 16.669	.65625	
					1	11 = 4.366	.171875							43 = 17.066	.671875	
					2	3 = 4.763	.1875							44 = 17.463	.6875	
					3	6 = 5.159	.203125							45 = 17.859	.703125	
					7	14 = 5.556	.21875							46 = 18.256	.71875	
					1	15 = 5.953	.234375							47 = 18.653	.734375	
					2	8 = 6.350	.2500							48 = 19.050	.75	
					4	17 = 6.747	.265625							49 = 19.447	.765625	
					1	9 = 7.144	.28125							50 = 19.844	.78125	
					5	18 = 7.541	.296875							51 = 20.241	.796875	
					10	20 = 7.938	.3125							52 = 20.638	.8125	
					3	21 = 8.334	.328125							53 = 21.034	.828125	
					6	11 = 8.731	.34375							54 = 21.431	.84375	
					2	23 = 9.128	.359375							55 = 21.828	.859375	
					3	12 = 9.525	.3750							56 = 22.225	.875	
					6	25 = 9.922	.390625							57 = 22.622	.890625	
					13	26 = 10.319	.40625							58 = 23.019	.90625	
					7	27 = 10.716	.421875							59 = 23.416	.921875	
					14	28 = 11.113	.4375							60 = 23.813	.9375	
					1	29 = 11.509	.453125							61 = 24.209	.953125	
					2	30 = 11.906	.46875							62 = 24.606	.96875	
					3	31 = 12.303	.484375							63 = 25.003	.984375	
1	2	4	8	16	32	= 12.700	.5	1	2	4	8	16	32	64 = 25.400	1.000	

LENGTH—HUNDREDTHS OF AN INCH TO MILLIMETERS

From 1 to 99 Hundredths

Hundredths of an inch	0	1	2	3	4	5	6	7	8	9
10	0	0.254	0.508	0.762	1.016	1.270	1.524	1.778	2.032	2.286
10	2.540	2.794	3.048	3.302	3.556	3.810	4.064	4.318	4.572	4.826
20	5.080	5.334	5.588	5.842	6.096	6.350	6.604	6.858	7.112	7.366
30	7.620	7.874	8.128	8.382	8.636	8.890	9.144	9.398	9.652	9.906
40	10.160	10.414	10.668	10.922	11.176	11.430	11.684	11.938	12.192	12.446
50	12.700	12.954	13.208	13.462	13.716	13.970	14.224	14.478	14.732	14.986
60	15.240	15.494	15.748	16.002	16.256	16.510	16.764	17.018	17.272	17.526
70	17.780	18.034	18.288	18.542	18.796	19.050	19.304	19.558	19.812	20.066
80	20.320	20.574	20.828	21.082	21.336	21.590	21.844	22.098	22.352	22.606
90	22.860	23.114	23.368	23.622	23.876	24.130	24.384	24.638	24.892	25.146

LENGTH—MILLIMETERS TO DECIMALS OF AN INCH

From 1 to 99 Units

Millimeters	0	1	2	3	4	5	6	7	8	9
10	0	0.03937	0.07874	0.11811	0.15748	0.19685	0.23622	0.27559	0.31496	0.35433
10	0.39370	.43307	.47244	.51181	.55118	.59055	.62992	.66929	.70866	.74803
20	.78740	.82677	.86614	.90551	.94488	.98425	1.02362	1.06299	1.10236	1.14173
30	1.18110	1.22047	1.25984	1.29921	1.33858	1.37795	1.41732	1.45669	1.49606	1.53543
40	1.57480	1.61417	1.65354	1.69291	1.73228	1.77165	1.81102	1.85039	1.88976	1.92913
50	1.96850	2.00787	2.04724	2.08661	2.12598	2.16535	2.20472	2.24409	2.28346	2.32283
60	2.36220	2.40157	2.44094	2.48031	2.51968	2.55905	2.59842	2.63779	2.67716	2.71653
70	2.75590	2.79527	2.83464	2.87401	2.91338	2.95275	2.99212	3.03149	3.07086	3.11023
80	3.14960	3.18897	3.22834	3.26771	3.30708	3.34645	3.38582	3.42519	3.46456	3.50393
90	3.54330	3.58267	3.62204	3.66141	3.70078	3.74015	3.77952	3.81889	3.85826	3.89763

LENGTH—UNITED STATES NAUTICAL MILES, INTERNATIONAL NAUTICAL MILES, AND KILOMETERS

Basic relations: 1 U. S. nautical mile=1.853248 kilometers; 1 International nautical mile=1.852 kilometers.

NOTE: Effective July 1, 1954, the International nautical mile (1.852 meters, 6' 076.10333 . . . feet) was adopted, in lieu of the U. S. nautical mile, for use in the Departments of Defense and Commerce.

U. S. nautical miles	Int. nautical miles	Kilometers	U. S. nautical miles	Int. nautical miles	Kilometers	U. S. nautical miles	Int. nautical miles	Kilometers
0			0	0	0	0	0	0
1	1.0007	1.8532	0.9993	1.9987	1.7065	1.8520	0.5396	0.5400
2	2.0013	3.7065	2.9987	3.7065	3.7065	3.7040	1.0792	1.0799
3	3.0020	5.5597	3.9973	5.5560	5.5560	5.5560	1.6188	1.6199
4	4.0027	7.4130	3.9973	7.4130	7.4130	7.4080	2.1384	2.1388
5	5.0034	9.2662	4.9966	9.2662	9.2662	9.2660	2.6880	2.6898
6	6.0040	11.1195	5.9960	11.1195	11.1195	11.1200	3.2376	3.2397
7	7.0047	12.9727	6.9953	12.9727	12.9727	12.9640	3.7772	3.7797
8	8.0054	14.8260	7.9946	14.8260	14.8260	14.8160	4.3167	4.3197
9	9.0061	16.6792	8.9939	16.6792	16.6792	16.6680	4.8563	4.8586
10	10.0067	18.5325	9.9933	18.5325	18.5325	18.5200	5.3559	5.3596
11	11.0074	20.3857	10.9926	20.3857	20.3857	20.3720	5.9555	5.9593
12	12.0081	22.2390	11.9919	22.2390	22.2390	22.2240	6.4751	6.4795
13	13.0088	24.0922	12.9912	24.0922	24.0922	24.0760	7.0147	7.0194
14	14.0094	25.9455	13.9906	25.9455	25.9455	25.9280	7.5543	7.5594
15	15.0101	27.7987	14.9899	27.7987	27.7987	27.7800	8.0939	8.0994
16	16.0108	29.6520	15.9892	29.6520	29.6520	29.6320	8.6335	8.6393
17	17.0115	31.5052	16.9886	31.5052	31.5052	31.4840	9.1731	9.1793
18	18.0122	33.3585	17.9879	33.3585	33.3585	33.3360	9.7127	9.7192
19	19.0128	35.2117	18.9872	35.2117	35.2117	35.1886	10.2323	10.2392
20	20.0135	37.0650	19.9865	37.0650	37.0650	37.0400	10.7919	10.7991
21	21.0142	38.9182	20.9859	38.9182	38.9182	38.8920	11.3315	11.3391
22	22.0148	40.7715	21.9852	40.7715	40.7715	40.7450	11.8711	11.8890
23	23.0155	42.6247	22.9845	42.6247	42.6247	42.5960	12.4106	12.4190
24	24.0162	44.4780	23.9838	44.4780	44.4780	44.4480	12.9502	12.9590
25	25.0168	46.3312	24.9832	46.3312	46.3312	46.3000	13.4898	13.4989
26	26.0175	48.1844	25.9825	48.1844	48.1844	48.1520	14.0294	14.0389
27	27.0182	50.0377	26.9818	50.0377	50.0377	50.0040	14.5620	14.5788
28	28.0189	51.8909	27.9811	51.8909	51.8909	51.8560	15.1086	15.1188
29	29.0195	53.7442	28.9805	53.7442	53.7442	53.7080	15.6882	15.6887
30	30.0202	55.5974	29.9798	55.5974	55.5974	55.5600	16.1878	16.1987
31	31.0209	57.4507	30.9791	57.4507	57.4507	57.4120	16.7274	16.7387
32	32.0216	59.3039	31.9785	59.3039	59.3039	59.2640	17.2670	17.2786
33	33.0223	61.1572	32.9778	61.1572	61.1560	61.1160	17.8066	17.8186
34	34.0229	63.0104	33.9771	63.0104	62.9680	62.9680	18.3362	18.3385
35	35.0236	64.8637	34.9764	64.8637	64.8637	64.8200	18.8985	18.8985
36	36.0243	66.7169	35.9758	66.7169	66.7169	66.6720	19.4224	19.4284
37	37.0249	68.5702	36.9751	68.5702	68.5702	68.5240	19.9649	19.9784
38	38.0256	70.4234	37.9744	70.4234	70.4234	70.3760	20.5045	20.5184
39	39.0263	72.2767	38.9737	72.2767	72.2767	72.2280	21.0441	21.0533
40	40.0270	74.1299	39.9731	74.1299	74.1299	74.0800	21.5837	21.5983
41	41.0276	75.9832	40.9724	75.9832	75.9832	75.9320	22.1233	22.1282
42	42.0283	77.8364	41.9717	77.8364	77.8364	77.7840	22.6629	22.6782
43	43.0290	79.6897	42.9710	79.6897	79.6897	79.6360	23.2025	23.2181
44	44.0297	81.5429	43.9704	81.5429	81.5429	81.4880	23.7421	23.7581
45	45.0303	83.3962	44.9697	83.3962	83.3962	83.3400	24.2817	24.2981
46	46.0310	85.2494	45.9690	85.2494	85.2494	85.1920	24.8213	24.8380
47	47.0317	87.1027	46.9683	87.1027	87.1027	87.0440	25.3609	25.3780
48	48.0323	88.9559	47.9677	88.9559	88.9559	88.8960	25.9005	25.9179
49	49.0330	90.8092	48.9677	90.8092	90.8092	90.7480	26.4401	26.4579

50	50.0337	92.6624	49.9663	92.6000	26.9978
1	51.0344	94.1556	50.9657	94.4520	27.5193
2	52.0350	96.2689	51.9659	96.3040	28.0588
3	53.0357	98.2221	52.9643	98.1560	28.5884
4	54.0364	100.0754	53.9636	100.0080	29.1380
5	55.0371	101.9286	54.9630	101.8600	29.6776
6	56.0377	103.7819	55.9623	103.7120	29.6976
7	57.0384	105.6351	56.9616	105.5640	30.2176
8	58.0391	107.4884	57.9609	107.4160	30.7758
9	59.0398	109.3416	58.9603	109.2680	31.2964
60	60.0404	111.1949	59.9596	111.1200	32.3756
1	61.0411	113.0481	60.9589	112.9720	32.9374
2	62.0418	114.9014	61.9582	114.8240	33.4558
3	63.0425	116.7546	62.9576	116.6760	33.9944
4	64.0431	118.6079	63.9569	118.5280	34.5340
5	65.0438	120.4611	64.9562	120.3800	35.0736
6	66.0445	122.1444	65.9556	122.2320	35.6132
7	67.0452	124.1676	66.9549	124.1527	36.1527
8	68.0458	126.0209	67.9542	125.9360	36.1771
9	69.0465	127.8741	68.9535	127.7880	37.2319
70	70.0472	129.7274	69.9529	129.6400	37.7715
1	71.0478	131.5806	70.9522	131.4920	38.3311
2	72.0485	133.4339	71.9515	133.3440	38.8769
3	73.0492	135.2871	72.9508	135.1960	39.3903
4	74.0499	137.1404	73.9502	137.0480	39.9299
5	75.0505	138.9936	74.9495	138.9000	40.4655
6	76.0512	140.8468	75.9488	140.7520	41.0091
7	77.0519	142.7001	76.9481	142.6040	41.5487
8	78.0526	144.5533	77.9475	144.4560	42.0833
9	79.0532	146.4066	78.9468	146.3080	42.6279
80	80.0539	148.2598	79.9461	148.1600	43.1675
1	81.0546	150.1131	80.9455	150.0120	43.7070
2	82.0553	151.9663	81.9448	151.8640	44.2466
3	83.0559	153.8196	82.9441	153.7160	44.7862
4	84.0566	155.6728	83.9434	155.5680	45.3228
5	85.0573	157.5261	84.9428	157.4200	45.8654
6	86.0580	159.3793	85.9421	159.2720	46.4050
7	87.0586	161.2326	86.9414	161.1240	46.9446
8	88.0593	163.0858	87.9407	162.9760	47.4842
9	89.0600	164.9391	88.9401	164.8280	48.0238
90	90.0607	166.7923	89.9394	90	48.5634
1	91.0613	168.6456	90.9387	1	48.5961
2	92.0620	170.4988	91.9380	2	49.1030
3	93.0627	172.3521	92.9374	3	49.6426
4	94.0633	174.2053	93.9367	4	49.1361
5	95.0640	176.0586	94.9360	5	50.2160
6	96.0647	177.9118	95.9354	6	50.7559
7	97.0654	179.7651	96.9347	7	51.2614
8	98.0660	181.6183	97.9340	8	51.8009
9	99.0667	183.4716	98.9333	9	52.3405
100	100.0674	185.3248	99.9327	100	52.8801
					53.4557
					53.9957

LENGTH—MILLIMETERS TO INCHES
[From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter = 0.03937 inch.]

Millimeters	Hundredths of millimeters							
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
0.00	0.000000	0.000787	0.001181	0.001575	0.001968	0.002362	0.002756	0.003150
0.10	.003937	.004331	.004724	.005118	.005512	.005906	.006393	.006787
0.20	.007874	.008661	.009055	.009449	.009842	.010236	.010630	.011024
0.30	.011811	.012205	.012598	.012992	.013386	.013780	.014173	.014567
0.40	.015748	.016142	.016535	.016929	.017323	.017716	.018110	.018504
0.50	0.019685	0.020079	0.020472	0.020866	0.021260	0.021654	0.022047	0.022441
0.60	.023622	.024016	.024409	.024803	.025197	.025590	.025984	.026378
0.70	.027559	.027953	.028346	.028740	.029134	.029528	.029921	.030315
0.80	.031496	.031890	.032283	.032677	.033071	.033464	.033858	.034252
0.90	.035433	.035827	.036220	.036614	.037008	.037402	.037795	.038189
1.00	0.03937	0.03976	0.04016	0.04055	0.04094	0.04134	0.04173	0.04213
1.10	.04331	.04370	.04409	.04449	.04488	.04528	.04567	.04606
1.20	.04724	.04764	.04803	.04843	.04882	.04921	.04961	.05000
1.30	.05118	.05157	.05197	.05236	.05276	.05315	.05354	.05394
1.40	.05512	.05551	.05591	.05630	.05669	.05709	.05748	.05787
1.50	0.05906	0.05945	0.05984	0.06024	0.06063	0.06102	0.06142	0.06181
1.60	.06299	.06339	.06378	.06417	.06457	.06496	.06535	.06575
1.70	.06693	.06732	.06772	.06811	.06850	.06890	.06929	.06968
1.80	.07087	.07126	.07165	.07205	.07244	.07283	.07323	.07362
1.90	.07480	.07520	.07559	.07598	.07638	.07677	.07717	.07756
2.00	0.07874	0.07913	0.07953	0.07992	0.08031	0.08071	0.08110	0.08150
2.10	.08268	.08307	.08346	.08386	.08425	.08465	.08504	.08543
2.20	.08661	.08701	.08740	.08780	.08819	.08858	.08898	.08937
2.30	.09055	.09094	.09134	.09173	.09213	.09252	.09291	.09331
2.40	.09449	.09488	.09528	.09567	.09606	.09646	.09685	.09724

2.50	0.09882	0.09921	0.09961	0.10000	0.10039	0.10079	0.10118	0.10157	0.10197
2.60	.10236	.10315	.10354	.10433	.10472	.10512	.10551	.10591	.10591
2.70	.10630	.10709	.10748	.10827	.10866	.10905	.10945	.10984	.10984
2.80	.11024	.11102	.11142	.11220	.11260	.11299	.11339	.11378	.11378
2.90	.11417	.11496	.11535	.11614	.11654	.11693	.11732	.11772	.11772
3.00	0.11811	0.11850	0.11890	0.11929	0.11968	0.12008	0.12047	0.12087	0.12126
3.10	.12205	.12244	.12283	.12323	.12362	.12402	.12441	.12480	.12520
3.20	.12598	.12638	.12677	.12717	.12756	.12795	.12835	.12874	.12913
3.30	.12992	.13031	.13071	.13110	.13150	.13189	.13228	.13268	.13307
3.40	.13386	.13425	.13465	.13504	.13543	.13583	.13622	.13661	.13701
3.50	0.13780	0.13819	0.13858	0.13898	0.13937	0.13976	0.14016	0.14055	0.14094
3.60	.14173	.14213	.14252	.14291	.14331	.14370	.14409	.14449	.14488
3.70	.14567	.14606	.14646	.14685	.14724	.14764	.14803	.14842	.14882
3.80	.14961	.15000	.15039	.15079	.15118	.15157	.15197	.15236	.15276
3.90	.15354	.15433	.15472	.15512	.15551	.15591	.15630	.15669	.15709
4.00	0.15748	0.15787	0.15827	0.15866	0.15905	0.15945	0.15984	0.16024	0.16063
4.10	.16142	.16181	.16220	.16260	.16299	.16339	.16378	.16417	.16457
4.20	.16535	.16575	.16614	.16654	.16693	.16732	.16772	.16811	.16850
4.30	.16929	.16968	.17008	.17047	.17087	.17126	.17165	.17205	.17244
4.40	.17323	.17362	.17402	.17441	.17480	.17520	.17559	.17598	.17638
4.50	0.17716	0.17756	0.17795	0.17835	0.17874	0.17913	0.17953	0.17992	0.18031
4.60	.18110	.18150	.18189	.18228	.18268	.18307	.18346	.18386	.18425
4.70	.18504	.18543	.18583	.18622	.18661	.18701	.18740	.18779	.18819
4.80	.18898	.18937	.18976	.19016	.19055	.19094	.19134	.19173	.19213
4.90	.19291	.19331	.19370	.19409	.19449	.19488	.19528	.19567	.19606
5.00	0.19685	0.19724	0.19764	0.19803	0.19842	0.19882	0.19921	0.19961	0.20000
5.10	.20079	.20118	.20157	.20197	.20236	.20276	.20315	.20354	.20394
5.20	.20472	.20512	.20551	.20591	.20630	.20669	.20709	.20748	.20787
5.30	.20866	.20905	.20945	.20984	.21024	.21063	.21102	.21142	.21181
5.40	.21260	.21299	.21339	.21378	.21417	.21457	.21496	.21535	.21575
5.50	0.21654	0.21693	0.21732	0.21772	0.21811	0.21850	0.21880	0.21929	0.21968
5.60	.22047	.22087	.22126	.22165	.22205	.22244	.22283	.22323	.22362
5.70	.22441	.22480	.22520	.22559	.22598	.22638	.22677	.22716	.22756
5.80	.22835	.22874	.22913	.22953	.22992	.23031	.23071	.23110	.23150
5.90	.23228	.23268	.23307	.23346	.23386	.23426	.23465	.23504	.23543

LENGTH—MILLIMETERS TO INCHES—Continued
 [From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter=0.03937 inch.]

Millimeters	Hundreds of millimeters						
	0.00	0.01	0.02	0.03	0.04	0.05	0.06
6.00	Inches	Inches	Inches	Inches	Inches	Inches	Inches
6.00	0.23661	0.23701	0.23740	0.23779	0.23819	0.23858	0.23898
6.10	.24016	.24055	.24094	.24134	.24173	.24213	.24252
6.20	.24409	.24449	.24488	.24528	.24567	.24606	.24646
6.30	.24803	.24842	.24882	.24921	.24961	.25000	.25039
6.40	.25197	.25236	.25276	.25315	.25354	.25394	.25433
6.50	0.25590	0.25630	0.25669	0.25709	0.25748	0.25787	0.25827
6.60	.25984	.26024	.26063	.26102	.26142	.26181	.26220
6.70	.26378	.26417	.26457	.26496	.26535	.26575	.26614
6.80	.26772	.26811	.26850	.26890	.26929	.26968	.27008
6.90	.27165	.27205	.27244	.27283	.27323	.27362	.27402
7.00	0.27559	0.27598	0.27638	0.27677	0.27716	0.27756	0.27795
7.10	.27953	.27992	.28031	.28071	.28110	.28150	.28189
7.20	.28346	.28386	.28425	.28465	.28504	.28543	.28583
7.30	.28740	.28779	.28819	.28858	.28898	.28937	.28976
7.40	.29134	.29173	.29213	.29252	.29291	.29331	.29370
7.50	0.29528	0.29567	0.29606	0.29646	0.29685	0.29724	0.29764
7.60	.29921	.29961	.30000	.30039	.30079	.30118	.30157
7.70	.30315	.30354	.30394	.30433	.30472	.30512	.30551
7.80	.30709	.30748	.30787	.30827	.30866	.30905	.30945
7.90	.31102	.31142	.31181	.31220	.31260	.31299	.31339
8.00	0.31496	0.31535	0.31575	0.31614	0.31653	0.31693	0.31732
8.10	.31890	.31929	.31968	.32008	.32047	.32087	.32126
8.20	.32283	.32323	.32362	.32402	.32441	.32480	.32520
8.30	.32677	.32716	.32756	.32795	.32835	.32874	.32913
8.40	.33071	.33110	.33150	.33189	.33228	.33268	.33307

8.50	0.33464	0.33504	0.33543	0.33583	0.33622	0.33661	0.33701	0.33740	0.33779	0.33819
8.60	.33838	.33898	.33937	.33976	.34016	.34055	.34094	.34134	.34173	.34213
8.70	.34252	.34291	.34331	.34370	.34409	.34449	.34488	.34527	.34567	.34606
8.80	.34646	.34685	.34724	.34764	.34803	.34842	.34882	.34921	.34961	.35000
8.90	.35039	.35079	.35118	.35157	.35197	.35236	.35276	.35315	.35354	.35394
9.00	0.35433	0.35472	0.35512	0.35551	0.35590	0.35630	0.35669	0.35709	0.35748	0.35787
9.10	.35827	.35866	.35905	.35945	.35984	.36024	.36063	.36102	.36142	.36181
9.20	.36220	.36260	.36299	.36339	.36378	.36417	.36457	.36496	.36535	.36575
9.30	.36614	.36653	.36693	.36732	.36772	.36811	.36850	.36890	.36929	.36968
9.40	.37008	.37047	.37087	.37126	.37165	.37205	.37244	.37283	.37323	.37362
9.50	0.37402	0.37441	0.37479	0.37520	0.37559	0.37598	0.37638	0.37677	0.37716	0.37756
9.60	.37795	.37835	.37874	.37913	.37953	.37992	.38031	.38071	.38110	.38150
9.70	.38189	.38228	.38268	.38307	.38346	.38386	.38425	.38464	.38504	.38543
9.80	.38583	.38622	.38661	.38701	.38740	.38779	.38819	.38858	.38898	.38937
9.90	.38976	.39016	.39055	.39094	.39134	.39173	.39213	.39252	.39291	.39331
10.00	0.39370	0.39409	0.39449	0.39488	0.39527	0.39567	0.39606	0.39646	0.39685	0.39724
10.10	.39764	.39803	.39842	.39882	.39921	.39961	.40000	.40039	.40070	.40118
10.20	.40157	.40197	.40236	.40276	.40315	.40354	.40394	.40433	.40472	.40512
10.30	.40551	.40590	.40630	.40669	.40709	.40748	.40787	.40827	.40866	.40905
10.40	.40945	.40984	.41024	.41063	.41102	.41142	.41181	.41220	.41260	.41299
10.50	0.41338	0.41378	0.41417	0.41457	0.41496	0.41535	0.41575	0.41614	0.41653	0.41693
10.60	.41732	.41772	.41811	.41850	.41890	.41929	.41968	.42008	.42047	.42087
10.70	.42126	.42165	.42205	.42244	.42283	.42323	.42362	.42401	.42441	.42480
10.80	.42520	.42559	.42598	.42638	.42677	.42716	.42756	.42795	.42835	.42874
10.90	.42913	.42953	.42992	.43031	.43071	.43110	.43150	.43189	.43228	.43268
11.00	0.43307	0.43346	0.43386	0.43425	0.43464	0.43504	0.43543	0.43583	0.43622	0.43661
11.10	.43701	.43740	.43779	.43819	.43858	.43898	.43937	.43976	.44016	.44055
11.20	.44094	.44134	.44173	.44213	.44252	.44291	.44331	.44370	.44409	.44449
11.30	.44488	.44527	.44567	.44606	.44646	.44685	.44724	.44764	.44803	.44842
11.40	.44882	.44921	.44961	.45000	.45039	.45079	.45118	.45157	.45197	.45236
11.50	0.45276	0.45315	0.45354	0.45394	0.45433	0.45472	0.45512	0.45551	0.45590	0.45630
11.60	.45669	.45709	.45748	.45787	.45827	.45866	.45905	.45945	.45984	.46024
11.70	.46102	.46142	.46181	.46220	.46259	.46299	.46338	.46378	.46417	.46456
11.80	.46496	.46535	.46575	.46614	.46653	.46693	.46732	.46772	.46811	.46850
11.90	.46890	.46929	.46968	.47008	.47047	.47087	.47126	.47165	.47205	.47244

LENGTH—MILLIMETERS TO INCHES—Continued.
[From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter = 0.03937 inch.]

Millimeters	Hundreds of millimeters						
	0.00	0.01	0.02	0.03	0.04	0.05	0.06
	Inches	Inches	Inches	Inches	Inches	Inches	Inches
12.00	0.47244	0.47283	0.47323	0.47362	0.47401	0.47441	0.47480
12.10	.47638	.47677	.47716	.47756	.47795	.47835	.47874
12.20	.48031	.48071	.48110	.48150	.48189	.48228	.48268
12.30	.48425	.48464	.48504	.48543	.48583	.48622	.48661
12.40	.48819	.48858	.48898	.48937	.48976	.49016	.49055
12.50	0.49212	0.49252	0.49291	0.49331	0.49370	0.49409	0.49449
12.60	.49606	.49646	.49685	.49724	.49764	.49803	.49842
12.70	.50000	.50039	.50079	.50118	.50157	.50197	.50236
12.80	.50394	.50433	.50472	.50512	.50551	.50590	.50630
12.90	.50787	.50827	.50866	.50905	.50945	.50984	.51024
13.00	0.51181	0.51220	0.51260	0.51299	0.51338	0.51378	0.51417
13.10	.51575	.51614	.51653	.51693	.51732	.51772	.51811
13.20	.51968	.52008	.52047	.52087	.52126	.52165	.52205
13.30	.52362	.52401	.52441	.52480	.52520	.52559	.52598
13.40	.52756	.52795	.52835	.52874	.52913	.52953	.52992
13.50	0.53150	0.53189	0.53228	0.53268	0.53307	0.53346	0.53386
13.60	.53543	.53583	.53622	.53661	.53701	.53740	.53779
13.70	.53937	.53976	.54016	.54055	.54094	.54134	.54173
13.80	.54331	.54370	.54409	.54449	.54488	.54527	.54567
13.90	.54724	.54764	.54803	.54842	.54882	.54921	.54961
14.00	0.55118	0.55157	0.55197	0.55236	0.55275	0.55315	0.55354
14.10	.55512	.55551	.55590	.55630	.55669	.55709	.55748
14.20	.55905	.55945	.55984	.56024	.56063	.56102	.56142
14.30	.56299	.56338	.56378	.56417	.56457	.56496	.56535
14.40	.56693	.56732	.56772	.56811	.56850	.56889	.56929

14.50	0.57086	0.57126	0.57165	0.57205	0.57244	0.57283	0.57323	0.57362	0.57401
14.60	.57480	.57520	.57559	.57598	.57638	.57677	.57716	.57756	.57795
14.70	.57874	.57913	.57953	.57992	.58031	.58071	.58110	.58149	.58189
14.80	.58288	.58307	.58346	.58386	.58425	.58464	.58504	.58543	.58583
14.90	.58661	.58701	.58740	.58779	.58819	.58858	.58898	.58937	.58976
15.00	0.59055	0.59094	0.59134	0.59173	0.59212	0.59252	0.59291	0.59331	0.59370
15.10	.59449	.59488	.59527	.59567	.59606	.59646	.59685	.59724	.59764
15.20	.59842	.59882	.59921	.59961	.60000	.60039	.60079	.60118	.60157
15.30	.60236	.60275	.60315	.60354	.60394	.60433	.60472	.60512	.60551
15.40	.60630	.60669	.60709	.60748	.60787	.60827	.60866	.60905	.60945
15.50	0.61024	0.61063	0.61102	0.61142	0.61181	0.61220	0.61260	0.61299	0.61338
15.60	.61417	.61457	.61496	.61535	.61575	.61614	.61653	.61693	.61732
15.70	.61811	.61850	.61890	.61929	.61968	.62008	.62047	.62086	.62126
15.80	.62205	.62244	.62283	.62323	.62362	.62401	.62441	.62480	.62520
15.90	.62598	.62638	.62677	.62716	.62756	.62795	.62835	.62874	.62913
16.00	0.62992	0.63031	0.63071	0.63110	0.63149	0.63189	0.63228	0.63268	0.63307
16.10	.63386	.63425	.63464	.63504	.63543	.63583	.63622	.63661	.63701
16.20	.63779	.63819	.63858	.63898	.63937	.63976	.64016	.64055	.64094
16.30	.64113	.64152	.64212	.64252	.64291	.64331	.64370	.64409	.64449
16.40	.64567	.64606	.64646	.64685	.64724	.64764	.64803	.64842	.64882
16.50	0.64960	0.65000	0.65039	0.65079	0.65118	0.65157	0.65197	0.65236	0.65275
16.60	.65334	.65394	.65433	.65472	.65512	.65551	.65590	.65630	.65669
16.70	.65748	.65787	.65827	.65866	.65905	.65945	.65984	.66023	.66063
16.80	.66142	.66181	.66220	.66260	.66299	.66338	.66378	.66417	.66457
16.90	.66535	.66575	.66614	.66653	.66693	.66732	.66772	.66811	.66850
17.00	0.66920	0.66968	0.67008	0.67047	0.67086	0.67126	0.67165	0.67205	0.67244
17.10	.67323	.67362	.67401	.67441	.67480	.67520	.67559	.67598	.67638
17.20	.67716	.67756	.67795	.67835	.67874	.67913	.67953	.67992	.68031
17.30	.68110	.68149	.68189	.68228	.68268	.68307	.68346	.68386	.68425
17.40	.68504	.68543	.68583	.68622	.68661	.68701	.68740	.68779	.68819
17.50	0.68898	0.68937	0.68976	0.69016	0.69055	0.69094	0.69134	0.69173	0.69212
17.60	.69291	.69331	.69370	.69409	.69449	.69488	.69527	.69567	.69606
17.70	.69635	.69724	.69764	.69803	.69842	.69882	.69921	.69960	.70000
17.80	.70079	.70118	.70157	.70197	.70235	.70275	.70315	.70354	.7039
17.90	.70472	.70512	.70551	.70590	.70630	.70669	.70709	.70748	.70787

LENGTH—MILLIMETERS TO INCHES—Continued
 [From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter = 0.03937 inch.]

Millimeters	Hundreds of millimeters								
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08
18.00	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
18.00	0.70866	0.70905	0.70945	0.70984	0.71023	0.71063	0.71102	0.71142	0.71181
18.10	.71260	.71299	.71338	.71378	.71417	.71457	.71496	.71535	.71575
18.20	.71653	.71693	.71732	.71772	.71811	.71850	.71890	.71929	.71968
18.30	.72047	.72086	.72126	.72165	.72205	.72244	.72283	.72323	.72362
18.40	.72441	.72480	.72520	.72559	.72598	.72638	.72677	.72716	.72756
18.50	0.72834	0.72874	0.72913	0.72953	0.72992	0.73031	0.73071	0.73110	0.73149
18.60	.73228	.73268	.73307	.73346	.73386	.73425	.73464	.73504	.73543
18.70	.73622	.73661	.73701	.73740	.73779	.73819	.73858	.73897	.73937
18.80	.74016	.74055	.74094	.74134	.74173	.74212	.74252	.74291	.74331
18.90	.74409	.74449	.74488	.74527	.74567	.74606	.74646	.74685	.74724
19.00	0.74803	0.74842	0.74882	0.74921	0.74960	0.75000	0.75039	0.75079	0.75118
19.10	.75197	.75236	.75275	.75315	.75354	.75394	.75433	.75472	.75512
19.20	.75590	.75630	.75669	.75709	.75748	.75787	.75827	.75866	.75905
19.30	.75984	.76023	.76063	.76102	.76142	.76181	.76220	.76260	.76300
19.40	.76378	.76417	.76457	.76496	.76535	.76575	.76614	.76653	.76693
19.50	0.76772	0.76811	0.76850	0.76890	0.76929	0.76968	0.77008	0.77047	0.77086
19.60	.77165	.77205	.77244	.77283	.77323	.77362	.77401	.77441	.77480
19.70	.77559	.77598	.77638	.77677	.77716	.77756	.77795	.77834	.77874
19.80	.77953	.77992	.78031	.78071	.78110	.78149	.78189	.78228	.78268
19.90	.78346	.78386	.78425	.78464	.78504	.78543	.78583	.78622	.78661
20.00	0.78740	0.78779	0.78819	0.78858	0.78897	0.78937	0.78976	0.79016	0.79055
20.10	.79134	.79173	.79212	.79252	.79291	.79331	.79370	.79409	.79449
20.20	.79527	.79567	.79606	.79646	.79685	.79724	.79764	.79803	.79842
20.30	.79921	.79960	.80000	.80039	.80079	.80118	.80157	.80197	.80236
20.40	.80315	.80354	.80394	.80433	.80472	.80512	.80551	.80590	.80630

20.50	0.80708	0.80748	0.80827	0.80866	0.80905	0.80945	0.80984	0.81023	0.81063
20.60	.81102	.81142	.81181	.81220	.81260	.81299	.81338	.81378	.81417
20.70	.81496	.81535	.81575	.81614	.81653	.81693	.81732	.81771	.81457
20.80	.81890	.81929	.81968	.82008	.82047	.82086	.82126	.82165	.81850
20.90	.82283	.82323	.82362	.82401	.82441	.82480	.82520	.82559	.82244
21.00	0.82677	0.82716	0.82756	0.82795	0.82834	0.82874	0.82913	0.82953	0.82992
21.10	.83071	.83110	.83149	.83189	.83228	.83268	.83307	.83346	.83386
21.20	.83464	.83504	.83543	.83583	.83622	.83661	.83701	.83740	.83779
21.30	.83858	.83897	.83937	.83976	.84016	.84055	.84094	.84134	.83819
21.40	.84252	.84291	.84331	.84370	.84409	.84449	.84488	.84527	.84212
21.50	0.84646	0.84685	0.84724	0.84764	0.84803	0.84842	0.84882	0.84921	0.84960
21.60	.85039	.85079	.85118	.85157	.85197	.85236	.85275	.85315	.85354
21.70	.85433	.85472	.85512	.85551	.85590	.85630	.85669	.85708	.85787
21.80	.85827	.85866	.85905	.85945	.85984	.86023	.86063	.86102	.86142
21.90	.86220	.86260	.86299	.86338	.86378	.86417	.86457	.86496	.86535
22.00	0.86614	0.86653	0.86693	0.86732	0.86771	0.86811	0.86850	0.86890	0.86968
22.10	.87008	.87047	.87086	.87126	.87165	.87205	.87244	.87283	.87362
22.20	.87401	.87441	.87480	.87520	.87559	.87598	.87638	.87677	.87756
22.30	.87795	.87834	.87874	.87913	.87953	.87992	.88031	.88071	.88110
22.40	.88189	.88228	.88268	.88307	.88346	.88386	.88425	.88464	.88543
22.50	0.88582	0.88622	0.88661	0.88701	0.88740	0.88779	0.88819	0.88858	0.88897
22.60	.88976	.89016	.89055	.89094	.89134	.89173	.89212	.89252	.89331
22.70	.89370	.89409	.89449	.89488	.89527	.89567	.89606	.89645	.89724
22.80	.89764	.89803	.89842	.89882	.89921	.89960	.90000	.90039	.90079
22.90	.90157	.90197	.90236	.90275	.90315	.90354	.90394	.90433	.90472
23.00	0.90551	0.90590	0.90630	0.90669	0.90708	0.90748	0.90787	0.90827	0.90866
23.10	.90945	.90984	.91023	.91063	.91102	.91142	.91181	.91220	.91259
23.20	.91338	.91378	.91417	.91457	.91496	.91535	.91575	.91614	.91653
23.30	.91732	.91771	.91811	.91850	.91890	.91929	.91968	.92008	.92047
23.40	.92126	.92165	.92205	.92244	.92283	.92323	.92362	.92401	.92441
23.50	0.92520	0.92559	0.92598	0.92638	0.92677	0.92716	0.92756	0.92795	0.92834
23.60	.92913	.92953	.92992	.93031	.93071	.93110	.93149	.93189	.93228
23.70	.93307	.93346	.93386	.93425	.93464	.93504	.93543	.93582	.93622
23.80	.93701	.93740	.93779	.93819	.93858	.93897	.93937	.93976	.94016
23.90	.94094	.94134	.94173	.94212	.94252	.94291	.94331	.94370	.94449

9. TABLES OF EQUIVALENTS FROM 1 TO 999 UNITS

LENGTH—FEET TO METERS

[Reduction factor: 1 foot = 0.3048006096 meter]

60	15.2403	150	45.72009	250	76.20015	350	106.68021	450	137.16027	550	167.64034	650	198.12040	750	228.60046	850	259.08052	950	289.56058
1	15.54483	1	46.02489	1	76.50495	1	106.98501	1	137.46507	1	167.94514	1	198.12520	1	228.90526	1	259.35532	1	289.86538
2	15.81963	2	46.32369	2	76.80975	2	107.28981	2	137.67988	2	168.49994	2	198.73000	2	229.60102	2	259.60102	2	289.17018
3	16.15443	3	46.63349	3	77.11455	3	107.59462	3	138.07468	3	168.55474	3	198.33480	3	229.51486	3	259.99492	3	289.4498
4	16.45923	4	46.38929	4	77.41935	4	107.89942	4	138.37948	4	168.85954	4	199.33960	4	229.81966	4	260.29972	4	289.77978
408776°—56—																			
5	16.76403	5	47.24409	5	77.72416	5	108.20422	5	138.68488	5	169.16434	5	199.64440	5	260.64052	5	291.08058	5	289.19420
6	16.06883	6	47.54890	6	78.02896	6	108.50902	6	138.98908	6	169.46914	6	199.94920	6	260.90932	6	291.38938	6	289.19418
7	17.37363	7	47.85370	7	78.33376	7	108.81322	7	139.29388	7	169.73394	7	200.25400	7	261.21412	7	291.99898	7	289.19418
8	17.67844	8	48.15850	8	78.63856	8	109.59868	8	139.59864	8	170.07874	8	200.55880	8	261.58902	8	291.99898	8	289.19418
9	17.95324	9	48.46330	9	78.94336	9	109.42342	9	139.90348	9	170.38354	9	200.86360	9	261.83466	9	292.30372	9	289.19418
10	18.28804	10	48.76810	10	79.24816	10	109.72822	10	140.20828	10	170.66834	10	201.16840	10	260.12852	10	292.60859	10	289.19418
11	18.59281	11	49.07290	11	79.55296	11	110.03032	11	140.51708	11	170.99314	11	201.47320	11	262.43332	11	292.21819	11	289.19418
12	18.89764	12	49.37700	12	79.85776	12	110.33272	12	140.81788	12	171.28794	12	201.77800	12	262.53813	12	293.21819	12	289.19418
13	19.20244	13	49.68250	13	80.16256	13	110.64252	13	141.22458	13	171.60274	13	202.08280	13	263.02929	13	293.52299	13	289.19418
14	19.50724	14	49.98730	14	80.46736	14	110.94742	14	141.42730	14	171.90754	14	202.38760	14	263.34773	14	293.82779	14	289.19418
15	19.81204	15	50.29210	15	80.77216	15	111.52522	15	141.73228	15	172.21234	15	202.69241	15	263.63253	15	294.13259	15	289.19418
16	20.11684	16	50.56690	16	81.16796	16	111.55702	16	142.34178	16	172.51715	16	203.99721	16	263.97333	16	294.43739	16	289.19418
17	20.42164	17	50.86170	17	81.38176	17	112.86162	17	142.34195	17	172.81915	17	203.30201	17	264.25213	17	294.74219	17	289.19418
18	20.72644	18	51.15130	18	81.99136	18	112.46662	18	142.64669	18	173.12675	18	203.60681	18	264.56693	18	295.06499	18	289.19418
19	21.03124	19	51.51130	19	81.99136	19	112.47142	19	142.95149	19	173.43155	19	203.91161	19	264.81713	19	295.35179	19	289.19418
20	21.33604	20	51.81610	20	82.26516	20	112.77623	20	143.25629	20	173.7635	20	204.21641	20	265.16553	20	295.65659	20	289.19418
21	21.64684	21	52.12090	21	82.60097	21	113.08103	21	143.56109	21	174.04115	21	204.52121	21	265.48133	21	295.96139	21	289.19418
22	21.95164	22	52.25270	22	82.90577	22	113.38589	22	143.85633	22	174.35955	22	204.82601	22	265.76613	22	296.26619	22	289.19418
23	22.25044	23	52.37051	23	83.21057	23	113.69605	23	144.17069	23	174.65075	23	205.13081	23	266.00993	23	296.57099	23	289.19418
24	22.55225	24	53.03531	24	83.51537	24	113.99534	24	144.47549	24	174.95555	24	205.43651	24	266.39573	24	296.87579	24	289.19418
25	22.86014	25	53.34011	25	83.82017	25	114.30025	25	144.78029	25	175.26035	25	205.74041	25	266.70053	25	297.18059	25	289.19418
26	23.16485	26	53.64911	26	84.12497	26	114.60503	26	145.08305	26	175.56515	26	206.04521	26	267.00533	26	297.48539	26	289.19418
27	23.46965	27	54.94971	27	84.42977	27	114.90983	27	145.38989	27	175.86995	27	206.35001	27	267.31013	27	297.79020	27	289.19418
28	23.77445	28	55.24551	28	84.73457	28	115.21463	28	145.69469	28	176.17475	28	206.55811	28	267.61494	28	298.09549	28	289.19418
29	24.07925	29	54.55931	29	85.03937	29	115.51943	29	145.99949	29	176.47935	29	206.85961	29	267.91974	29	298.39980	29	289.19418
30	24.38405	30	54.86411	30	85.34417	30	115.82323	30	146.30429	30	176.78435	30	207.26441	30	268.24544	30	298.70460	30	289.19418
31	24.68875	31	55.16891	31	85.63577	31	116.12303	31	146.60939	31	177.08915	31	207.66922	31	268.53434	31	299.00940	31	289.19418
32	24.98365	32	55.47371	32	85.93577	32	116.43383	32	146.91389	32	177.39395	32	207.84702	32	268.35408	32	299.31420	32	289.19418
33	25.28845	33	55.77881	33	86.25657	33	116.73863	33	147.21869	33	177.68976	33	208.17882	33	268.65888	33	299.61900	33	289.19418
34	25.60325	34	56.08331	34	86.56337	34	117.04334	34	147.50344	34	178.08366	34	208.48362	34	268.96368	34	299.44374	34	289.23880
35	25.90805	35	56.38811	35	86.86817	35	117.34823	35	147.82830	35	178.30836	35	208.78842	35	269.26848	35	299.22860	35	289.19418
36	26.21285	36	56.69291	36	87.15797	36	117.63931	36	148.13310	36	178.61316	36	209.03632	36	270.03334	36	300.53340	36	289.19418
37	26.51765	37	57.00757	37	87.47777	37	117.99784	37	148.43790	37	179.19796	37	209.39802	37	270.38314	37	300.83820	37	289.19418
38	26.82245	38	57.30251	38	87.78258	38	118.26264	38	148.74624	38	179.22276	38	209.70282	38	270.66294	38	301.14300	38	289.19418
39	27.12725	39	57.60732	39	88.08738	39	118.56744	39	149.04750	39	179.52756	39	210.00762	39	270.48786	39	301.44780	39	289.19418
40	27.43205	40	57.91212	40	88.39218	40	118.87224	40	149.35230	40	179.83236	40	210.31242	40	271.22548	40	301.72626	40	289.19418
41	27.73686	41	58.21662	41	88.69698	41	119.17704	41	149.65710	41	180.13716	41	210.51722	41	271.57734	41	302.05740	41	289.19418
42	28.04166	42	58.52172	42	89.00178	42	119.48194	42	149.96190	42	180.44196	42	210.52202	42	271.88214	42	302.36220	42	289.19418
43	28.34645	43	58.82652	43	89.30658	43	119.78664	43	150.26676	43	180.74676	43	211.22682	43	272.16894	43	302.66701	43	289.19418
44	28.65126	44	59.13132	44	89.61138	44	120.09144	44	150.57150	44	181.05156	44	212.01168	44	272.49174	44	302.97181	44	289.19418
45	28.95606	45	59.43612	45	89.91618	45	120.39624	45	150.87530	45	181.35636	45	213.83642	45	272.79655	45	303.27661	45	289.19418
46	29.26086	46	59.74092	46	90.22093	46	120.70104	46	151.18110	46	181.66116	46	212.44122	46	273.10135	46	303.58141	46	289.19418
47	29.56366	47	60.04572	47	90.52578	47	121.00584	47	151.45890	47	181.96596	47	212.46602	47	273.46115	47	303.88621	47	289.19418
48	29.87046	48	60.33052	48	90.83058	48	121.31064	48	151.70907	48	182.20706	48	212.75083	48	273.71095	48	304.19101	48	289.19418
49	30.17526	49	60.65532	49	91.13338	49	121.61544	49	152.05550	49	182.57557	49	213.05563	49	274.01575	49	304.49581	49	289.19418

1 inch = 0.02540 meter
2 inches = .05080 meter
3 inches = .07620 meter

4 inches = 0.10160 meter
5 inches = .152700 meter
6 inches = .183240 meter

7 inches = 0.17780 meter
8 inches = .203200 meter
9 inches = .228600 meter

10 inches = 0.25400 meter
11 inches = .27940 meter
12 inches = .30480 meter

LENGTH—METERS TO FEET

[Reduction factor: 1 meter = 3.280833333 feet]

Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet	Meters	Feet
0	328.08333	200	656.16667	300	984.25000	400	1,312.33333	500	1,640.41667	600	1,968.50000	700	2,296.58333	800	2,624.66667
1	331.36417	1	659.44750	2	987.53083	3	1,315.61417	4	1,643.69750	5	1,971.78083	6	2,299.86417	7	2,637.95000
2	334.64500	3	666.00917	4	994.09250	5	1,318.17583	6	1,646.78333	7	1,975.01677	8	2,327.14500	9	2,657.45750
3	337.92583	5	666.29000	6	997.37333	7	1,325.45567	8	1,653.54000	9	1,981.63333	10	2,309.70667	11	2,631.22333
4	341.20667	6	672.57083	7	1,000.65417	8	1,328.73750	9	1,656.82083	10	1,984.90417	11	2,312.38750	12	2,634.50177
5	344.48750	8	675.85167	9	1,003.95000	10	1,332.01833	11	1,660.10167	12	1,988.15000	13	2,316.26833	14	2,644.35167
6	16.40417	16	19.65000	17	351.04917	18	1,335.29917	19	1,663.38250	20	1,991.45583	21	2,319.54917	22	2,647.63250
7	22.96583	28	26.64667	29	8.010.49667	30	1,338.58000	31	1,666.66333	32	1,994.74667	33	2,322.83000	34	2,650.91333
8	29.52750	9	357.61083	9	685.69417	10	1,341.66083	11	1,669.94417	12	1,998.02750	13	2,326.11083	14	2,654.19417
10	32.80833	110	360.89167	110	688.97500	110	1,017.05833	110	1,345.14467	110	1,673.22500	110	2,001.30833	110	2,329.39167
11	36.08917	1	364.12500	1	692.55583	1	1,020.33917	1	1,348.12250	1	1,676.50383	1	2,004.58917	1	2,332.67250
12	39.37000	2	367.45333	2	695.53667	2	1,023.62000	2	1,351.70333	2	1,679.78667	2	2,007.87000	2	2,335.95333
13	42.65083	3	370.73417	3	698.81750	3	1,026.90083	3	1,354.98417	3	1,683.20833	3	2,011.15083	3	2,339.23417
14	45.93167	4	374.01500	4	702.09833	4	1,030.18167	4	1,358.26500	4	1,686.34833	4	2,014.43167	4	2,342.51500
15	49.21250	5	377.20583	5	705.37917	5	1,033.46250	5	1,361.54583	5	1,689.62917	5	2,017.71250	5	2,345.79583
16	52.49333	6	380.57667	6	708.66000	7	1,036.74333	7	1,364.82667	8	1,692.91000	9	2,020.93333	10	2,349.07667
17	55.77417	7	383.85733	7	711.94083	8	1,040.05417	9	1,368.10750	10	1,696.19083	11	2,024.27417	12	2,352.35750
18	59.05500	8	387.13833	8	715.22167	9	1,043.38833	10	1,371.34833	11	1,699.47167	12	2,029.53500	13	2,355.63833
19	62.33583	9	390.41917	9	718.50250	9	1,046.55833	10	1,374.66917	11	1,702.75250	12	2,030.85583	13	2,358.91917
20	65.61667	120	393.70000	220	1,049.86667	420	1,377.95000	520	1,706.03333	620	2,034.11667	720	2,362.20000	820	2,690.28333
21	68.89750	1	396.98083	1	725.65417	1	1,053.17550	1	1,381.33983	1	1,709.34147	1	2,037.39750	1	2,365.48083
22	72.17833	2	400.26167	2	728.45450	2	1,056.28333	3	1,384.51667	4	1,712.59500	5	2,040.67833	6	2,368.84500
23	75.45917	3	403.54250	3	731.62553	3	1,059.79047	4	1,387.75000	5	1,715.87583	6	2,043.95917	7	2,370.20400
24	78.74000	4	406.82333	4	734.90667	4	1,062.99000	5	1,391.70333	6	1,719.15667	7	2,047.24000	8	2,375.23333
25	82.02083	5	410.10417	5	738.18750	5	1,066.27083	6	1,394.52417	7	1,722.432750	8	2,050.50803	9	2,378.60417
26	85.30167	6	413.35500	6	741.46583	6	1,069.55167	7	1,397.63500	8	1,725.71833	9	2,053.80167	10	2,381.88500
27	88.58333	7	416.66583	7	744.74917	7	1,072.83250	8	1,400.51683	9	1,728.99917	10	2,057.02500	11	2,387.14583
28	91.86333	8	419.94667	8	748.03000	8	1,076.11333	9	1,404.19667	10	1,732.28000	11	2,060.33333	12	2,388.44647
29	95.14417	9	423.22750	9	751.31083	9	1,079.39447	9	1,407.47750	9	1,735.56083	9	2,063.64417	9	2,391.72750
30	98.42500	130	426.50833	230	514.59167	330	1,410.68750	430	1,738.84167	530	2,066.92500	630	2,392.08833	730	2,723.09167
31	101.70583	1	429.78917	1	517.95250	1	1,085.59583	2	1,414.83917	3	1,745.40333	4	2,073.46667	5	2,398.52333
32	104.98667	2	433.07250	2	516.15533	2	1,089.23667	3	1,417.05200	4	1,747.50333	5	2,074.50000	6	2,399.57333
33	108.26500	3	436.35083	3	519.33417	3	1,092.51750	4	1,423.88167	5	1,748.64500	6	2,080.08433	7	2,404.13167
34	111.54833	4	440.61367	4	523.61317	4	1,095.79833	5	1,423.99917	6	1,751.96500	7	2,083.32917	8	2,407.17167
35	114.82917	5	442.91250	5	570.99583	5	1,099.07917	6	1,427.62550	7	1,755.24583	8	2,083.32917	9	2,411.41250
36	118.11000	6	446.19333	6	574.27667	6	1,102.36000	7	1,430.44333	8	1,758.52667	9	2,086.60100	10	2,414.69333
37	121.39083	7	449.47417	7	577.55750	7	1,105.64083	8	1,433.72417	9	1,761.77333	10	2,089.80983	11	2,417.19417
38	124.67167	8	452.75500	8	580.83833	8	1,108.92167	9	1,437.00500	10	1,765.08533	11	2,093.17167	12	2,421.25300
39	127.95250	9	456.03583	9	584.11917	9	1,112.20250	9	1,440.28583	10	1,768.36917	11	2,096.42520	12	2,424.53583
40	131.23333	140	459.31667	240	587.40000	340	1,115.48333	440	1,443.56667	540	1,771.65000	640	2,099.73333	740	2,427.81667
41	134.51417	1	462.59750	1	590.68083	1	118.76417	2	1,446.84750	1	1,774.93083	2	2,103.04172	1	2,431.99750
42	137.79500	2	465.87833	2	593.96167	2	122.04500	3	1,450.12833	2	1,778.21167	3	2,106.25500	2	2,432.45450
43	141.07583	3	469.15917	3	597.44250	3	125.32583	4	1,453.40917	3	1,781.49250	4	2,109.57583	3	2,437.65917
44	144.35667	4	472.44000	4	600.82333	4	128.66667	5	1,456.69000	4	1,784.77333	5	2,112.86667	4	2,440.94000
45	147.63750	5	475.72083	5	603.80417	5	1,311.88750	6	1,458.05167	5	1,788.05167	6	2,116.17250	5	2,444.22083
46	150.91833	6	479.00167	6	607.08500	6	1,315.15617	7	1,463.52550	6	1,791.48333	7	2,124.47167	6	2,447.50167
47	154.19757	7	482.22550	7	616.35683	7	1,318.44917	8	1,466.53250	7	1,794.13683	8	2,126.69917	7	2,452.78250
48	157.48000	8	485.56333	8	613.44667	8	1,341.73000	9	1,469.81333	8	1,797.89667	9	2,125.00000	8	2,454.46667
49	160.76083	9	488.44177	9	616.92750	9	1,445.01083	9	1,473.09417	9	1,801.17750	9	2,129.26083	9	2,457.33447

50	164	04167	492,12500	1,148,29167	450	1,476,37500	550	1,804,45833	550	2,132,54167	750	2,450,62500	850	2,788,70833	950	3,116,79167
51	167	32250	495,40553	1,151,57250	1	1,482,55833	551	1,801,02000	551	2,135,82250	751	2,463,90583	851	2,791,98917	951	3,120,07250
52	168	66657	496,8817	1,151,58230	2	1,482,93667	552	1,811,02000	552	2,139,10333	752	2,467,18667	852	2,795,20700	952	3,123,35333
53	173	88117	501,96750	3,158,13417	3	1,486,1750	553	1,814,30083	553	2,142,38447	753	2,470,46750	853	2,798,50583	953	3,126,33417
54	177	16367	505,24833	3,161,33167	4	1,489,49833	554	1,817,58167	554	2,145,66500	754	2,473,74833	854	2,801,88167	954	3,129,91803
55	180	44883	508,52917	5,86,61250	5	1,64,69583	555	1,492,77917	555	1,820,86250	555	2,148,94583	555	2,477,02917	555	2,805,11250
56	183	72667	6,51,81000	6,89,89333	6	1,67,97657	556	1,496,04600	556	1,824,14333	556	2,152,22667	556	2,806,41000	556	3,133,19883
57	187	10750	7,515,95833	7,83,17117	7	1,71,25750	557	1,499,04683	557	1,827,42417	557	2,155,50770	557	2,806,33333	557	3,136,47667
58	190	38833	8,518,37167	8,86,45500	8	1,74,58833	558	1,502,21667	558	1,830,70500	558	2,158,78833	558	2,807,62417	558	3,139,75750
59	193	56917	9,521,63250	9,89,73883	9	1,77,81917	559	1,833,98583	559	2,162,06917	559	2,486,07167	559	2,814,95500	559	3,143,03833
60	196	85000	160,524,93333	260,853,01667	360	1,81,10000	460	1,509,18333	460	1,87,26667	460	2,165,35000	760	2,493,43333	860	3,149,60000
61	200	13863	1,528,2147	1,856,54750	1,860	1,184,38083	1,861	1,512,46167	1,861	1,840,54750	1,861	2,168,63083	1,861	2,496,71417	1,861	3,152,88083
62	203	41167	2,531,49500	2,859,57933	2,860	1,85,61567	2,861	1,87,661567	2,861	1,843,82833	2,861	2,175,91167	2,861	2,499,99500	2,861	3,156,16167
63	206	69520	3,534,77593	3,862,53117	3,863	1,90,92050	3,864	1,91,922883	3,864	1,847,19917	3,864	2,175,19250	3,864	2,503,72583	3,864	3,159,44250
64	209	97333	4,538,05667	4,866,14000	4,867	1,94,23333	4,868	1,95,23333	4,868	1,850,39000	4,868	2,178,47350	4,868	2,506,55667	4,868	3,162,22333
65	213	25417	5,541,33750	5,817,42083	5,818	1,97,50417	5,819	1,95,58750	5,819	1,853,67083	5,819	2,181,75417	5,819	2,509,83750	5,819	3,166,00417
66	216	53500	6,544,61833	6,872,70167	6,873	1,200,75050	6,874	1,528,86333	6,874	1,856,95167	6,874	2,185,03500	6,874	2,513,11833	6,874	3,169,28500
67	219	81883	7,547,89917	7,875,98250	7,876	1,204,06583	7,877	1,532,14917	7,877	1,860,23250	7,877	2,188,31583	7,877	2,516,39917	7,877	3,172,56883
68	223	96667	8,551,18000	8,879,26333	8,880	1,207,31667	8,881	1,535,30000	8,881	1,863,53333	8,881	2,194,59667	8,881	2,519,88000	8,881	3,175,84667
69	226	37750	9,554,40683	9,882,54417	9,883	1,210,66750	9,884	1,538,1083	9,884	1,866,79417	9,884	2,194,87750	9,884	2,522,26083	9,884	3,179,42750
70	229	65833	170,557,74167	270,885,82500	270	1,213,90883	270	1,541,99167	270	1,870,07500	270	2,198,15833	270	2,526,24167	270	3,182,40833
71	232	93517	1,561,62250	1,889,10583	1,890	1,217,18917	1,891	1,541,22750	1,891	1,873,35583	1,891	2,204,49117	1,891	2,529,52250	1,891	3,185,68917
72	236	22000	2,564,30333	2,892,38667	2,893	1,220,47000	2,894	1,548,55333	2,894	1,876,63667	2,894	2,204,72000	2,894	2,532,80333	2,894	3,188,97200
73	239	50863	3,567,53417	3,895,66750	3,896	1,223,75083	3,897	1,551,83417	3,897	1,879,91750	3,897	2,208,00083	3,897	2,536,08417	3,897	3,192,25083
74	242	18167	4,570,88500	4,898,49433	4,899	1,227,03167	4,900	1,555,11500	4,900	1,883,19633	4,900	2,211,28167	4,900	2,539,46300	4,900	3,195,33167
75	246	06250	5,574,14583	5,902,22917	5,903	1,230,31250	5,904	1,558,39883	5,904	1,886,47917	5,904	2,214,56250	5,904	2,542,64883	5,904	3,198,81250
76	249	34333	6,577,42667	6,905,51000	6,906	1,236,50000	6,907	1,561,56767	6,907	1,889,76000	6,907	2,217,84333	6,907	2,545,92667	6,907	3,202,09333
77	252	62167	7,580,70750	7,908,79083	7,909	1,236,87147	7,910	1,564,95750	7,910	1,893,40483	7,910	2,221,12417	7,910	2,549,20750	7,910	3,205,37417
78	255	10800	8,583,98833	8,912,07167	8,913	1,240,15050	8,914	1,568,23833	8,914	1,895,32167	8,914	2,224,40500	8,914	2,552,48833	8,914	3,208,65500
79	259	18833	9,587,28917	9,915,35520	9,916	1,243,45583	9,917	1,571,59197	9,917	1,899,60250	9,917	2,227,68583	9,917	2,555,69197	9,917	3,211,33863
80	262	46667	180,590,53000	280,918,63333	280	1,246,71667	280	1,574,80000	280	1,902,88333	280	2,230,96667	280	2,552,48833	280	3,215,21667
81	265	74750	1,593,83083	2,912,91417	2,913	1,249,90500	2,914	1,578,08083	2,914	1,902,46147	2,914	2,234,72500	2,914	2,552,33083	2,914	3,218,49750
82	269	02833	2,597,11167	2,925,19500	2,926	1,253,25567	2,927	1,581,36167	2,927	1,909,44500	2,927	2,237,82583	2,927	2,558,89250	2,927	3,221,77333
83	272	30917	3,603,39250	3,928,47583	3,929	1,255,55937	3,930	1,584,64540	3,930	1,912,75583	3,930	2,240,80917	3,930	2,568,89250	3,930	3,225,05817
84	275	39000	4,603,67333	4,931,75067	4,932	1,259,84000	4,933	1,587,92333	4,933	1,916,00667	4,933	2,244,89000	4,933	2,568,92567	4,933	3,228,34000
85	278	87083	5,606,95417	5,935,03750	5,936	1,263,12083	5,937	1,591,20417	5,937	1,920,37083	5,937	2,247,80800	5,937	2,572,17333	5,937	3,231,62083
86	282	15167	6,610,23500	6,936,91333	6,937	1,266,40167	6,938	1,594,85000	6,938	1,925,56833	6,938	2,250,65167	6,938	2,578,73500	6,938	3,234,90167
87	285	43250	7,613,51583	7,941,59917	7,942	1,269,76833	7,943	1,597,76833	7,943	1,925,84917	7,943	2,253,93200	7,943	2,582,01583	7,943	3,238,18250
88	288	71333	8,616,79667	8,944,88000	8,945	1,272,96333	8,946	1,601,04667	8,946	1,929,13000	8,946	2,257,21333	8,946	2,585,29667	8,946	3,241,46333
89	291	9917	9,620,07550	9,948,16083	9,949	1,276,24417	9,950	1,604,32750	9,950	1,932,41083	9,950	2,260,49417	9,950	2,588,57750	9,950	3,244,74417
90	295	27500	190,623,33833	290,951,44167	290	1,279,52500	290	1,607,08083	290	1,935,69167	290	2,263,77500	290	2,591,85333	290	3,248,02500
91	298	55833	1,626,63917	2,954,72250	2,955	1,282,80533	2,956	1,610,8817	2,956	1,938,92750	2,956	2,267,05583	2,956	2,595,33197	2,956	3,251,30583
92	301	83667	2,629,92000	3,958,00333	3,959	1,286,08657	3,960	1,614,36750	3,960	1,942,23333	3,960	2,270,33667	3,960	2,598,42000	3,960	3,254,58667
93	305	11750	3,633,20083	3,961,28417	3,962	1,289,36750	3,963	1,617,45083	3,963	1,945,53417	3,963	2,273,61750	3,963	2,599,78417	3,963	3,257,86750
94	308	39833	4,636,49167	4,964,56500	4,965	1,292,64833	4,966	1,620,37167	4,966	1,948,81500	4,966	2,276,89833	4,966	2,604,98167	4,966	3,261,14833
95	311	67917	5,639,76250	5,967,34883	5,968	1,295,92917	5,969	1,624,01250	5,969	1,952,09583	5,969	2,280,17917	5,969	2,608,46250	5,969	3,264,49217
96	314	96000	6,643,04333	6,971,12667	6,972	1,299,21000	6,973	1,627,29333	6,973	1,955,37667	6,973	2,283,46000	6,973	2,611,54333	6,973	3,267,71000
97	318	24083	7,646,32417	7,974,40750	7,975	1,302,49083	7,976	1,630,57167	7,976	1,958,63750	7,976	2,286,74083	7,976	2,614,82417	7,976	3,270,90083
98	321	52167	8,649,60500	8,977,68833	8,978	1,305,77167	8,979	1,633,85500	8,979	1,961,93833	8,979	2,290,02167	8,979	2,618,10500	8,979	3,274,27167
99	324	80250	9,652,88583	9,980,95917	9,981	1,309,05250	9,982	1,637,13383	9,982	1,965,21917	9,982	2,293,30250	9,982	2,621,33883	9,982	3,277,55250

LENGTH—MILES TO KILOMETERS

[Reduction factor: 1 mile = 1.60934719 kilometers]

Miles	Kilo-meters														
0	0	100	160.9447	200	321.8694	300	482.8042	400	643.7389	500	804.6736	600	965.6083	700	1,126.5431
1	1.6093	1	162.5441	2	323.4788	1	484.4135	2	645.3482	1	805.2830	2	967.1717	1	1,128.1524
2	3.2187	2	164.1534	3	325.0881	2	486.0229	3	646.9576	2	807.8923	3	968.7270	2	1,129.7617
3	4.8280	3	165.7628	3	326.6975	3	487.6322	3	648.5669	3	809.5017	3	970.4364	3	1,131.3711
4	6.4374	4	167.3721	4	328.3068	4	489.2416	4	650.1763	4	811.1110	4	972.0457	4	1,132.9512
5	8.0467	5	168.9815	5	329.9162	5	490.8509	6	651.7856	5	812.7203	6	973.6551	5	1,134.5898
6	9.6561	6	170.5908	6	331.5255	6	492.4602	6	653.3950	6	814.3397	7	975.6444	6	1,136.1991
7	11.2654	7	172.2002	7	494.0696	7	495.9390	7	655.0043	7	815.8738	7	976.4317	7	1,137.8085
8	12.8748	8	173.8025	8	334.7442	8	496.6137	8	656.6137	8	817.5484	8	978.4831	8	1,139.4178
9	14.4841	9	175.4188	9	336.3536	9	497.2883	9	658.2330	9	819.1577	9	980.0925	9	1,141.0272
10	16.0935	10	177.0282	210	337.9629	310	498.8976	410	659.8324	510	820.7671	610	981.7018	710	1,142.6365
11	17.7028	11	178.6375	1	339.5723	1	491.4417	2	661.4417	1	822.3764	2	983.1112	1	1,144.2459
12	19.3122	2	180.2469	2	341.1816	2	502.1163	2	663.0511	2	823.9858	3	984.9205	2	1,145.8552
13	20.9215	3	181.8562	3	342.7910	3	503.7257	3	664.6604	3	825.5951	3	986.5298	3	1,147.4646
14	22.5309	4	183.4656	4	344.4003	4	505.3350	4	666.2697	4	827.2045	4	988.1392	4	1,149.0739
15	24.1402	5	185.0749	5	346.0097	5	506.9444	5	667.8791	5	828.8138	5	989.7485	5	1,150.6833
16	25.7546	6	186.6843	6	347.6190	6	508.5557	6	669.4884	6	830.4232	6	991.1579	6	1,152.2926
17	27.3689	7	188.2936	7	349.2283	7	510.1631	7	671.0978	7	832.0325	7	992.1672	7	1,153.9020
18	28.9832	8	189.9030	8	350.8377	8	511.7724	8	672.7071	8	833.6419	9	994.7676	8	1,155.1113
19	30.5776	9	191.5123	9	352.4470	9	513.3818	9	674.3165	9	835.2512	9	996.1839	9	1,157.1207
20	32.1869	120	193.1217	220	354.0664	320	514.9911	420	675.9258	520	836.8606	620	997.7953	720	1,158.7300
21	33.7953	1	194.7310	1	355.6557	1	516.6005	1	677.5552	1	838.4699	1	999.4046	1	1,160.3933
22	35.4056	2	196.3404	2	357.2751	2	518.2098	2	678.4455	2	840.0792	2	1,001.0140	2	1,161.9487
23	37.0150	3	197.9497	3	358.8844	3	519.8192	3	680.7539	3	841.6886	3	1,002.6233	3	1,163.5580
24	38.6243	4	199.5591	4	360.4938	4	521.1285	4	682.3632	4	843.2979	4	1,004.2327	4	1,165.1674
25	40.2337	5	201.1684	5	362.1031	5	523.0378	5	683.9726	5	844.9073	5	1,005.8420	5	1,167.7676
26	41.8330	6	202.7777	6	363.7125	6	524.6472	6	685.5819	6	846.5166	6	1,007.5514	6	1,168.3861
27	43.4324	7	204.3871	7	365.3218	7	526.2575	7	687.2616	7	848.1260	7	1,009.0607	7	1,169.9554
28	45.0517	8	205.9954	8	366.9312	8	527.8639	8	688.8006	8	849.7353	8	1,010.6701	8	1,171.6048
29	46.6711	9	207.6058	9	368.5405	9	529.4752	9	690.4100	9	851.3447	9	1,012.2794	9	1,173.2141
30	48.2804	130	209.2151	230	370.1499	330	531.0846	430	692.0193	530	852.9540	630	1,013.8887	730	1,174.8335
31	49.8898	1	210.8245	1	371.7592	1	532.6939	1	693.6287	1	854.5634	1	1,015.4981	1	1,175.5822
32	51.4991	2	212.4338	2	373.3866	2	534.3033	2	695.2580	2	856.1727	2	1,017.1074	2	1,178.0422
33	53.1085	3	214.0432	3	374.9779	3	535.9126	3	696.4873	3	857.7821	3	1,018.1768	3	1,179.6151
34	54.7178	4	215.6525	4	376.5872	4	537.5120	4	698.4567	4	859.3914	4	1,020.1261	4	1,181.2609
35	56.3272	5	217.2619	5	378.1966	5	539.1313	5	700.0660	5	861.0008	6	1,021.9355	5	1,182.8702
36	57.9365	6	218.8712	6	379.8059	6	540.7407	6	701.6754	6	862.6101	6	1,023.5448	6	1,184.4796
37	59.5558	7	220.4806	7	381.4153	7	542.3500	7	703.2847	7	864.2195	7	1,025.1582	7	1,186.0889
38	61.1552	8	222.0899	8	383.0246	8	543.3594	8	704.8941	9	865.6288	8	1,026.1635	8	1,187.6982
39	62.7645	9	223.6993	9	384.6340	9	545.5687	9	706.5034	9	867.4382	9	1,028.3729	9	1,189.3076
40	64.3739	140	225.3086	240	386.2433	340	547.1781	440	708.1128	540	869.0475	640	1,029.9822	740	1,190.9169
41	65.9832	1	226.9180	1	387.8827	1	548.7874	2	709.7221	1	870.6568	2	1,031.5916	1	1,192.5623
42	67.5926	2	228.5273	2	389.4420	2	550.3967	2	711.3315	2	872.2662	3	1,033.2097	2	1,194.1356
43	69.2019	3	230.1366	3	391.0714	3	552.0061	3	712.9408	3	873.8755	3	1,034.8103	3	1,195.7450
44	70.8113	4	231.1460	4	392.4755	4	553.6154	4	714.5807	4	875.4849	4	1,036.1936	4	1,197.3543
45	72.4206	5	233.3553	5	394.2901	5	555.1228	5	716.1995	5	877.0942	5	1,038.0290	5	1,198.9637
46	73.0300	6	234.9647	6	395.8994	6	556.3341	6	717.7889	6	878.7036	6	1,039.6333	6	1,200.5077
47	75.6393	7	236.7470	7	397.5088	7	558.4435	7	719.3782	7	880.3129	7	1,041.2477	7	1,202.1824
48	77.2487	8	238.1834	8	399.1181	8	560.0538	8	720.9876	8	881.9223	8	1,042.8570	8	1,203.7117
49	78.8590	9	239.4927	9	400.4001	9	561.6622	9	722.5569	9	883.5316	9	1,044.6663	9	1,205.4011

50	80,4674	241,4021	250	402,3368	350	563,2715	450	724,2062	650	885,1410	750	1,207,0104	850	1,367,9451	950	1,528,7999
1	82,667	243,0114	1	403,9461	2	405,5255	2	566,4902	3	568,0996	3	729,0343	2	888,3397	2	1,047,6850
2	83,2654	246,2301	3	407,1648	4	408,7742	4	569,7089	5	571,8183	5	732,2530	3	889,9690	3	1,050,9037
3	85,2854	247,8395	4	410,3835	5	411,9029	6	572,9276	6	573,8623	7	733,4717	4	891,5784	4	1,052,5131
4	86,9047	249,4488	5	415,0582	6	411,9022	7	574,4717	6	573,7318	7	734,4717	5	893,187	5	1,054,1224
5	88,5141	251,0582	6	415,2675	7	415,6022	8	575,4717	7	576,4064	8	735,4717	6	894,7971	6	1,055,7318
6	90,1234	252,6675	8	415,2116	9	576,1463	8	576,8010	9	888,0157	8	736,8010	7	895,9505	7	1,057,7016
7	91,7228	253,6675	9	255,3862	9	416,8209	9	577,5757	9	738,6904	9	895,6251	9	1,060,5598	8	1,380,8199
8	93,3421	254,2769	8	255,8862	9	416,8209	9	577,5757	9	738,6904	9	895,6251	9	1,221,4945	9	1,382,4293
9	94,9515	255,3862	9	255,8862	9	416,8209	9	577,5757	9	738,6904	9	895,6251	9	1,382,4293	9	1,543,3640
60	96,5608	260,4956	260	418,4303	360	579,3650	460	740,2997	560	901,2344	660	1,062,1692	760	1,223,1039	860	1,344,0386
1	98,1702	259,1049	1	580,39743	2	582,5837	2	743,5184	3	904,4531	2	1,063,7785	1	1,224,7132	2	1,345,6480
2	99,7795	260,7142	2	421,6190	3	423,3236	3	584,1930	4	766,3024	4	766,7371	3	906,0625	3	1,226,3326
3	101,3889	262,9320	3	421,6190	4	424,8577	4	585,1930	5	748,3465	5	749,2812	4	1,068,5066	4	1,227,9319
4	102,9882	263,9320	4	423,9320	5	426,4770	5	587,4117	6	750,3304	6	751,5632	5	1,070,2155	5	1,231,1506
5	104,6076	265,5423	5	426,4770	6	428,0864	6	589,0211	7	750,3304	7	751,5632	6	910,8895	6	1,232,0853
6	106,2169	267,1516	6	428,0864	7	429,6957	7	590,5304	8	753,1745	8	914,1092	7	1,073,4346	7	1,395,6947
7	107,8263	268,7610	7	429,6957	8	270,3703	8	593,3051	9	754,7838	9	915,7186	9	1,075,0439	8	1,396,9134
8	109,4556	270,3703	8	431,3051	9	432,9144	9	593,3491	9	754,7838	9	915,7186	9	1,076,6533	9	1,398,5227
9	111,0450	271,9797	9	432,9144	270	434,5237	370	595,4585	470	756,3932	570	917,3279	670	1,076,2626	770	1,239,1974
70	112,6643	273,5890	1	436,1331	1	597,0678	1	598,9772	2	598,9772	1	918,9373	1	1,063,7785	1	1,240,8067
1	114,2637	275,1984	2	437,7424	2	437,7424	2	599,6119	3	761,2212	3	922,1560	2	920,5466	2	1,240,8067
2	115,8730	276,8077	3	439,3518	3	439,3518	3	600,2865	4	601,9611	4	923,7653	3	923,0833	3	1,244,0601
3	117,4823	278,4171	3	439,3518	4	440,9611	4	601,9611	5	603,5052	5	603,5052	4	1,084,7000	4	1,244,0601
4	119,0917	280,0264	4	439,3518	5	442,5705	5	603,5052	6	605,1145	6	606,4933	5	1,087,9187	5	1,245,6347
5	120,7010	281,6338	5	442,5705	6	444,1798	6	604,1798	7	606,7239	7	607,6586	6	928,5933	6	1,247,2441
6	122,3104	283,2451	6	442,5705	7	284,8545	7	607,6586	8	928,5933	7	929,5933	7	1,248,8534	6	1,249,7882
7	123,9197	284,8545	7	284,8545	8	447,3985	8	608,3332	9	929,5933	8	930,2027	8	1,091,1374	7	1,372,3322
8	125,5991	286,4638	8	286,4638	9	449,0079	9	609,9426	9	770,8773	9	931,8120	9	1,092,7468	9	1,252,0721
9	127,1384	288,0732	9	288,0732	280	450,6172	380	611,5519	480	772,4867	580	933,4214	680	1,094,3561	780	1,255,2908
80	128,7478	289,6825	1	291,2918	2	453,8359	2	613,1613	1	744,0960	1	935,0307	1	1,095,9655	1	1,246,2256
1	130,3571	292,9012	2	453,8359	3	455,4453	3	616,3800	4	617,5983	4	777,3147	2	936,6101	2	1,097,5748
2	131,9665	293,9012	3	453,8359	4	457,0546	4	617,5983	5	618,6464	5	778,9241	3	938,2494	3	1,099,1842
3	133,5758	294,5105	3	453,8359	5	457,0546	5	618,6464	6	619,5987	5	780,5334	4	941,4681	4	1,100,7935
4	135,1852	296,1199	4	457,0546	6	460,2733	6	621,2080	7	622,1427	6	782,1427	5	1,104,0122	5	1,202,4028
5	136,7945	297,7292	5	457,0546	7	300,9479	7	622,1874	7	783,7521	7	944,6868	7	1,105,6215	7	1,247,9101
6	138,4039	299,3386	6	457,0546	8	302,5573	8	623,4920	9	785,3614	8	946,2926	8	1,107,2309	8	1,268,1656
7	140,0132	7	300,9479	9	457,0546	9	625,0361	9	786,9708	9	947,9055	9	1,108,8402	9	1,269,7750	
8	141,6226	8	302,5573	9	457,0546	9	625,1013	9	786,9708	9	947,9055	9	1,108,8402	9	1,270,7097	
9	143,2319	9	304,1066	9	457,0546	9	626,0361	9	786,9708	9	947,9055	9	1,108,8402	9	1,271,8444	
90	144,8412	190	305,7760	290	466,7107	390	627,6454	490	788,5801	590	949,5149	690	1,110,4496	790	1,271,3836	
1	146,4506	1	307,3853	1	629,3248	1	630,8947	2	649,9294	2	630,8641	1	951,1642	1	1,112,0589	
2	148,0599	2	308,3853	2	649,9294	3	632,4735	3	632,4735	3	633,4082	3	954,3429	3	1,115,2776	
3	149,6693	3	310,6040	3	649,9294	4	634,0828	4	634,0828	4	635,0175	4	955,9322	4	1,116,8870	
4	151,2786	4	312,2134	4	649,9294	4	647,1348	4	647,1348	4	648,1814	4	956,9322	4	1,127,8217	
5	152,8880	5	313,3221	5	649,9294	5	647,1348	5	647,1348	5	650,1814	5	957,5616	5	1,128,7310	
6	154,4973	6	315,3221	6	649,9294	6	647,1348	6	647,1348	6	651,1814	6	958,4963	6	1,144,3658	
7	156,1067	7	317,0414	7	649,9294	7	647,1348	7	647,1348	7	652,1814	7	960,7803	7	1,122,7151	
8	157,7160	8	318,6507	8	649,9294	8	647,1348	8	647,1348	8	653,1814	8	962,3896	8	1,145,1938	
9	159,3254	9	320,2601	9	649,9294	9	647,1348	9	647,1348	9	653,0643	9	963,9900	9	1,146,8031	

LENGTH—KILOMETERS TO MILES

[Reduction factor: 1 kilometer = 0.621369495 mile]

Kilo-meters	Miles	Kilo-meters	Miles	Kilo-meters	Miles	Kilo-meters	Miles	Kilo-meters	Miles	Kilo-meters	Miles	Kilo-meters	Miles						
0	0	100	62.13699	200	124.27399	300	186.41098	400	248.54798	500	310.68497	600	372.82197	700	434.95896	800	497.09596	900	559.23295
1	0.62137	1	62.57836	2	63.37973	3	64.00110	4	64.62247	5	65.23384	6	65.86521	7	66.48638	8	67.10796	9	67.59333
2	1.24274	2	125.51673	3	126.11810	4	126.75947	5	127.38084	6	128.00221	7	129.64646	8	130.28495	9	131.92331	10	133.55632
3	1.86411	3	187.03235	4	187.65372	5	188.27509	6	188.89646	7	189.51783	8	190.13920	9	190.76057	10	191.38194	11	192.86632
4	2.48548	4	249.05146	5	249.79072	6	250.41209	7	251.03346	8	251.65483	9	252.27620	10	252.89757	11	253.51909	12	254.14139
5	3.10685	5	312.92771	6	313.54908	7	314.17045	8	314.80245	9	315.43346	10	316.06471	11	316.69598	12	317.32730	13	317.95130
6	3.72822	6	364.47727	7	365.10959	8	365.74186	9	366.37424	10	367.00661	11	367.63898	12	368.27130	13	368.90378	14	369.53616
7	4.34959	7	419.02161	8	419.64388	9	420.26614	10	420.88851	11	421.51085	12	422.13317	13	422.75550	14	423.37783	15	423.99916
8	4.97096	8	467.10795	9	467.72932	10	468.35168	11	468.97395	12	469.60622	13	470.23850	14	470.86077	15	471.48304	16	472.10531
9	5.59233	9	514.00331	10	514.62458	11	515.24585	12	515.86712	13	516.48839	14	517.11033	15	517.73260	16	518.35491	17	518.97728
10	6.21370	10	561.35969	11	561.98118	12	562.61346	13	563.23775	14	563.86102	15	564.48429	16	565.10756	17	565.73083	18	566.35410
11	6.83307	11	613.97206	12	614.60515	13	615.23842	14	615.86169	15	616.48496	16	617.10823	17	617.73150	18	618.35477	19	618.97804
12	7.45344	12	669.59343	13	670.21480	14	670.83617	15	671.45754	16	672.07891	17	672.69928	18	673.32165	19	673.94302	20	674.56439
13	8.07781	13	721.24043	14	721.86279	15	722.48487	16	723.10703	17	723.72930	18	724.35250	19	724.97477	20	725.60700	21	726.23033
14	8.69918	14	773.06476	15	773.68717	16	774.30954	17	774.93192	18	775.55425	19	776.17658	20	776.79997	21	777.42230	22	778.04563
15	9.32055	15	824.88779	16	825.51016	17	826.13258	18	826.75505	19	827.37738	20	827.99975	21	828.62215	22	829.24495	23	829.87728
16	9.94192	16	876.21299	17	876.83533	18	877.45766	19	878.07999	20	878.70238	21	879.32464	22	879.94697	23	880.56925	24	881.19156
17	10.56229	17	928.70238	18	929.32464	19	929.94697	20	930.56925	21	931.19156	22	931.81384	23	932.43613	24	933.05841	25	933.68069
18	11.18466	18	971.00626	19	971.62853	20	972.25080	21	972.87316	22	973.49543	23	974.11773	24	974.73999	25	975.36227	26	975.98456
19	11.80603	19	1023.06062	20	1023.68025	21	1024.30258	22	1024.92491	23	1025.54725	24	1026.17058	25	1026.79391	26	1027.41730	27	1028.03988
20	12.42740	20	1074.74120	21	1075.36439	22	1076.98776	23	1078.61129	24	1079.23568	25	1080.85905	26	1081.48230	27	1082.10563	28	1082.72892
21	13.04877	21	1126.00713	22	1127.32227	23	1128.93838	24	1130.55268	25	1132.17237	26	1133.79267	27	1135.41237	28	1137.03207	29	1138.65135
22	13.67014	22	1175.51875	23	1176.80713	24	1178.19413	25	1179.48112	26	1180.76812	27	1182.05511	28	1183.34211	29	1184.62909	30	1186.30335
23	14.29151	23	1226.56756	24	1227.85480	25	1229.14280	26	1230.42980	27	1231.71680	28	1233.00379	29	1234.29079	30	1235.57778	31	1236.86476
24	14.91288	24	1278.04896	25	1279.33636	26	1280.62366	27	1281.91096	28	1283.19824	29	1284.48556	30	1285.77295	31	1287.06094	32	1288.34892
25	15.53425	25	1329.51016	26	1330.79720	27	1332.08223	28	1333.36850	29	1334.65576	30	1335.94303	31	1337.23033	32	1338.51761	33	1339.79966
26	16.15562	26	1381.29261	27	1382.58024	28	1383.86805	29	1385.15626	30	1386.44454	31	1387.73095	32	1389.01494	33	1390.29783	34	1391.58572
27	16.77799	27	1432.78135	28	1434.06933	29	1435.35755	30	1436.64574	31	1437.93393	32	1439.22192	33	1440.50931	34	1441.79729	35	1443.08519
28	17.39836	28	1483.35355	29	1484.64173	30	1485.92995	31	1487.21813	32	1488.49634	33	1489.78372	34	1491.07110	35	1492.35850	36	1493.64628
29	18.01973	29	1534.01973	30	1535.29732	31	1536.58552	32	1537.87372	33	1539.16172	34	1540.44991	35	1541.73710	36	1543.02448	37	1544.31186
30	18.64110	30	1584.74040	31	1586.02808	32	1587.30547	33	1588.58388	34	1589.86135	35	1591.13975	36	1592.41712	37	1593.69449	38	1594.97186
31	19.26247	31	1635.99416	32	1637.28105	33	1638.56812	34	1639.85409	35	1641.14114	36	1642.42811	37	1643.71508	38	1645.00195	39	1646.28792
32	19.88384	32	1687.02083	33	1688.30770	34	1689.59467	35	1690.88164	36	1692.16851	37	1693.45548	38	1694.74235	39	1696.02922	40	1697.31609
33	20.50521	33	1738.77203	34	1740.05891	35	1741.34578	36	1742.63265	37	1743.91952	38	1745.20638	39	1746.49325	40	1747.78012	41	1749.06691
34	21.12558	34	1789.46427	35	1790.75116	36	1792.03795	37	1793.32482	38	1794.61169	39	1795.90156	40	1797.19135	41	1798.48114	42	1799.77093
35	21.74795	35	1845.88494	36	1847.16284	37	1848.44073	38	1849.71862	39	1851.00651	40	1852.29440	41	1853.58227	42	1854.87004	43	1856.15781
36	22.36932	36	1904.50631	37	1905.78038	38	1907.06427	39	1908.34815	40	1909.63192	41	1910.91579	42	1912.20356	43	1913.49133	44	1914.77910
37	22.99069	37	1965.12768	38	1966.41067	39	1967.69356	40	1968.97643	41	1970.26034	42	1971.54421	43	1972.83798	44	1974.12175	45	1975.41553
38	23.61206	38	2025.85495	39	2027.14268	40	2028.43052	41	2029.71841	42	2031.00629	43	2032.29418	44	2033.58195	45	2034.86982	46	2036.15761
39	24.23343	39	2085.74905	40	2087.03693	41	2088.32481	42	2089.61269	43	2090.90046	44	2092.18827	45	2093.48514	46	2094.78195	47	2096.07973
40	24.85480	40	214.99119	21	215.12879	22	215.26578	23	215.40278	24	215.53977	25	215.67677	26	215.81374	27	215.95056	28	216.08755
41	25.47617	21	217.61316	22	218.74343	23	219.87370	24	220.01421	25	221.14114	26	222.26812	27	223.39510	28	224.52213	29	225.65008
42	26.09754	22	228.23453	23	229.36550	24	230.49647	25	231.62537	26	232.75525	27	233.88383	28	234.01313	29	234.14213	30	234.27113
43	26.71891	23	288.85350	24	289.47727	25	290.10916	26	290.74094	27	291.37284	28	292.00488	29	292.63280	30	293.26078	31	293.88875
44	27.34028	24	347.90644	25	348.53245	26	349.16032	27	350.78826	28	351.41823	29	352.04612	30	352.67402	31	353.30349	32	353.93132
45	27.96165	25	390.85644	26	391.48634	27	392.11623	28	392.74412	29	393.37201	30	393.99990	31	394.62789	32	395.25581	33	395.88375
46	28.58204	26	452.59864	27	453.22654	28	453.85454	29	454.48243	30	455.10931	31	455.73721	32	456.36510	33	456.99309	34	457.62307
47	29.20031	27	512.60964	28	513.23756	29	513.86553	30	514.49344	31	515.12132	32	515.74915	33	516.37693	34	516.99487	35	517.62385
48	29.81201	28	572.62656	29	573.25456	30	573.88245	31	574.51235	32	575.14023	33	575.76816	34	576.39606	35	576.99400	36	577.59196
49	29.43343	29	632.60944	30	633.23734	31	633.86533	32	634.49322	33	635.12111	34	635.74901	35	636.37688	36	637.00477	37	637.63276
50	29.95342	30	692.61316	31	693.24114	32	693.86913	33	694.49714	34	695.12503	35	695.75291	36	696.38088	37	696.99578	38	697.62375
51	30.44713	31	752.60944	32	753.23734	33	753.86533	34	754.49322	35	755.12111	36	755.74901	37	756.37688	38	756.99400	39	757.62307

50	31.06850	250	93.20549	155.34249	450	217.47948	350	155.82686	1	155.96328	2	156.58326	2	218.72222	1	280.85922	2	342.95621	2	405.13321	2	467.27020	2	529.40720	2	591.54419	2	656.92282	2
51	31.68987	251	94.44823	156.1	451	217.47948	351	156.11127	2	156.58326	3	157.02660	3	219.34359	2	281.48059	3	343.61758	3	405.75458	3	467.89157	3	529.0857	3	591.76556	3		
52	32.93261	252	95.06950	156.2	452	217.47948	352	157.02660	2	157.82797	4	157.82797	4	219.96496	4	282.10196	4	344.23895	4	406.37595	4	468.51294	4	530.64994	4	592.78693	4		
53	33.55358	253	95.68097	156.3	453	217.47948	353	158.44834	5	158.44834	5	220.58633	5	282.72333	5	344.80532	5	406.99732	5	469.13431	5	531.27131	5	593.40830	5				
54	34.17135	254	96.31234	156.4	454	217.47948	354	159.07071	6	159.07071	6	221.20770	6	283.44470	6	345.48169	6	407.61869	6	469.02967	6	531.50267	6	594.65104	6				
55	34.79572	255	96.93879	156.5	455	217.47948	355	160.70199	7	159.69208	7	162.82907	7	283.66605	7	346.13036	7	408.24006	7	470.37705	7	532.54045	7	594.65104	7				
56	35.41809	256	97.55508	156.6	456	217.47948	356	161.55619	8	160.31345	8	160.31345	9	223.07811	9	285.28580	9	347.34580	9	409.48280	9	471.61979	9	533.75679	9	595.89378	9		
57	36.03946	257	98.17645	156.7	457	217.47948	357	162.29982	9	160.39482	9	160.39482	9	223.45044	8	284.58744	8	346.72443	8	408.86143	8	480.99842	8	533.13342	8	595.27241	8		
58	36.66583	258	98.79782	156.8	458	217.47948	358	163.28330	3	161.28330	3	163.42030	3	225.53729	3	287.69429	3	349.83132	3	411.96828	3	473.48380	3	534.99953	3	597.37589	3		
59	37.30357	259	99.41919	156.9	459	217.47948	359	164.04056	1	162.17755	1	162.17755	1	266.45155	1	328.58854	1	410.72554	1	472.86253	1	534.99953	1	597.37589	1				
60	37.92220	260	99.41919	157.0	460	217.47948	360	164.66304	4	164.04167	4	226.17866	4	288.13156	4	350.45265	4	412.58965	4	474.72664	4	536.86364	4	599.00063	4				
61	38.56025	261	100.41919	157.1	461	217.47948	361	165.52604	5	164.66304	5	226.80003	5	289.33703	5	351.07402	5	413.21102	5	475.34801	5	537.48501	5	599.62303	5				
62	40.38905	262	103.14741	157.2	462	217.47948	362	165.82841	6	165.82841	6	228.42127	6	289.55840	6	351.69539	6	413.82339	6	478.86938	6	538.10638	6	600.44337	6				
63	41.01942	263	103.14741	157.3	463	217.47948	363	166.30278	7	165.30278	7	228.42127	7	290.17977	7	352.31676	7	414.43376	7	476.59075	7	539.27775	7	601.48611	7				
64	42.51316	264	104.39015	157.4	464	217.47948	364	166.822715	8	166.822715	8	228.66414	8	290.40114	8	352.98113	8	415.07513	8	477.21212	8	539.39192	8	601.48611	8				
65	42.87433	265	105.01152	157.5	465	217.47948	365	167.44852	9	167.44852	9	229.28351	9	291.42251	9	353.55950	9	415.66360	9	477.83349	9	539.90749	9	602.10748	9				
66	43.49590	266	105.63289	157.6	466	217.47948	366	168.96899	10	167.76089	10	229.90688	10	292.04388	10	354.18087	10	416.31787	10	477.45486	10	534.51986	10	597.72885	10				
67	44.11227	267	106.25426	157.7	467	217.47948	367	169.59126	1	168.59126	1	231.01263	1	293.65525	1	354.80224	1	416.93924	1	479.50723	1	531.51233	1	603.35022	1				
68	44.78684	268	106.87563	157.8	468	217.47948	368	170.49700	2	169.01263	2	231.14962	2	293.28662	2	355.23631	2	417.50601	2	479.69760	2	531.83460	2	603.97159	2				
69	45.36001	269	107.49700	157.9	469	217.47948	369	170.88137	3	169.34300	3	231.77099	3	293.90779	3	356.04498	3	418.18198	3	480.31897	3	533.09256	3	604.39256	3				
70	45.98138	270	108.739974	158.0	470	217.47948	370	171.08754	4	170.87574	5	233.01373	5	295.15073	5	357.28772	5	419.42472	5	481.56171	5	533.69871	5	605.83570	5				
71	46.60725	271	108.739974	158.1	471	217.47948	371	171.36111	6	171.36111	6	235.77210	6	307.99099	6	420.04669	6	482.18078	6	544.30208	6	606.45707	6						
72	47.22412	272	109.98248	158.2	472	217.47948	372	172.11948	7	172.11948	7	234.25647	7	296.39347	7	358.53046	7	420.66746	7	482.00445	7	544.91445	7	607.07944	7				
73	48.46636	273	110.98248	158.3	473	217.47948	373	173.00385	8	172.74085	8	234.87784	8	297.04184	8	359.15183	8	421.28883	8	483.56282	8	567.69981	8	608.18419	8				
74	49.08823	274	111.25252	158.4	474	217.47948	374	173.66222	9	173.66222	9	234.49921	9	297.63621	9	359.77320	9	421.91020	9	484.04719	9	567.18419	9	608.21118	9				
75	49.70960	275	111.84659	158.5	475	217.47948	375	174.98359	10	174.98359	10	236.12056	10	294.25758	10	350.39457	10	422.53157	10	478.46686	10	536.80556	10	608.94255	10				
76	50.33097	276	112.45796	158.6	476	217.47948	376	175.50935	1	175.50935	1	237.36525	1	295.50932	1	351.63231	1	423.77431	1	485.91130	1	531.47693	1	609.56932	1				
77	50.95234	277	113.08933	158.7	477	217.47948	377	176.17070	2	176.17070	2	238.81639	2	296.12169	2	352.58668	2	424.39568	2	485.13367	2	531.80666	2	608.69673	2				
78	51.57711	278	113.71070	158.8	478	217.47948	378	177.09044	3	176.46907	4	238.60606	4	296.43016	4	353.88005	4	427.01705	4	487.15104	4	531.24094	4	611.42803	4				
79	52.81645	279	114.93344	158.9	479	217.47948	379	178.57481	5	177.57481	6	239.22743	5	297.09443	5	363.50142	5	425.63842	5	487.77341	5	539.91241	5	612.04940	5				
80	54.51919	280	116.19118	159.0	480	217.47948	380	179.55455	7	176.19118	7	240.47017	7	303.02717	7	364.74416	7	426.12279	7	488.86978	7	539.53378	7	612.67077	7				
81	54.89536	281	116.81755	159.1	481	217.47948	381	180.44951	8	176.81755	8	241.00154	8	303.22554	8	365.36553	8	427.50253	8	489.03952	8	531.55315	8	613.91351	8				
82	55.30393	282	117.43892	159.2	482	217.47948	382	181.97299	9	179.57592	9	241.71291	9	303.44951	9	365.98690	9	428.12390	9	490.38226	9	532.39789	9	614.53488	9				
83	55.92330	283	118.05029	159.3	483	217.47948	383	182.47728	1	180.81866	1	242.33428	1	304.47228	1	366.60827	1	429.22964	1	490.88226	1	533.01926	1	615.15625	1				
84	56.54467	284	118.68126	159.4	484	217.47948	384	183.44903	2	181.44903	2	243.57002	2	305.74102	2	367.85101	2	429.98801	2	492.12500	2	534.26199	2	616.39899	2				
85	57.16064	285	119.30303	159.5	485	217.47948	385	184.92440	3	182.92440	3	244.18839	3	306.33539	3	368.47238	3	430.60937	3	492.74637	3	534.88336	3	617.02036	3				
86	57.78741	286	120.48678	159.6	486	217.47948	386	185.54577	4	182.54577	4	244.88776	4	306.05676	4	369.09375	4	431.23074	4	493.46774	4	535.50473	4	617.64173	4				
87	60.27289	287	122.40988	159.7	487	217.47948	387	186.30414	5	183.30414	6	245.44113	5	307.58172	5	369.71512	5	431.85211	5	493.08911	5	535.12610	5	618.25310	5				
88	60.89426	288	123.03125	159.8	488	217.47948	388	187.16714	6	183.20251	6	246.06250	6	308.19949	6	370.33649	6	432.47348	6	494.61048	6	618.88447	6	619.50384	6				
89	61.51562	289	123.65262	159.9	489	217.47948	389	187.59556	7	184.34687	7	247.30524	7	309.44223	7	371.76242	7	433.09455	7	495.43318	7	537.36884	7	620.12721	7	620.12721	7		
90	55.92330	190	118.05029	160.0	490	217.47948	390	188.19729	8	180.81866	1	242.95525	1	305.09265	1	362.57002	1	429.22964	1	491.50363	1	533.60462	1	615.15625	1				

AREA—ACRES TO HECTARES

[Reduction factor: 1 acre = 0.4046872610 hectare]

Acres Hectares		Acres Hectares		Acres Hectares		Acres Hectares		Acres Hectares		Acres Hectares	
Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares
100	40.46873	200	80.93745	300	121.40618	400	161.87490	500	202.34363	600	242.81236
1	0.40469	1	81.34214	2	121.81087	1	162.27959	1	202.74832	1	243.21704
2	40.89387	2	81.27810	3	81.74683	2	122.21555	2	162.68428	2	203.15801
3	1.23406	3	41.68779	4	82.15151	3	122.62024	4	163.08937	3	203.55769
4	1.6875	4	42.08748	5	82.55620	4	123.02943	4	163.49365	4	203.96238
5	2.0344	5	42.49216	6	82.96089	5	123.42951	6	163.89834	5	204.36707
6	2.48212	6	42.86985	7	83.30154	6	123.83458	7	164.30303	6	204.77175
7	2.83281	7	83.77026	8	84.17495	7	124.28999	7	164.70772	7	205.17644
8	3.23530	8	84.70622	9	84.57964	8	125.04836	9	165.11240	8	205.58113
9	3.62419	9	84.11091	10	44.51560	210	84.98432	310	125.45305	410	165.92178
10	4.04687	10	44.92029	11	85.38901	1	85.85774	1	166.32666	1	206.39050
11	4.45156	11	45.32497	12	85.97330	2	126.26243	2	166.73115	2	207.19988
12	4.86225	12	45.72966	13	86.19839	3	126.66711	3	167.13584	3	207.04538
13	5.26093	13	46.13435	14	86.60307	4	127.07180	4	167.05353	4	208.00925
15	5.66562	15	46.53904	16	87.00776	5	127.47649	5	167.94521	5	208.41394
16	6.07031	16	46.94372	17	87.41214	6	127.88117	6	168.34980	6	208.81863
17	6.47500	17	87.89668	18	87.81741	7	128.28586	7	168.74949	7	209.22331
18	7.25437	18	87.75310	19	88.22102	8	128.69057	8	169.15928	8	209.62880
19	7.68906	19	88.15778	20	88.66551	9	129.09524	9	169.56396	9	210.03269
20	8.09375	20	88.56247	220	89.03120	320	129.49958	420	169.96865	520	210.43738
21	8.49843	21	88.96716	22	89.43588	1	129.90461	1	170.37334	1	210.84206
22	8.90312	22	89.37185	23	89.80567	2	130.30930	2	170.77802	2	211.24675
23	9.30761	23	89.77553	24	90.24536	3	130.71399	3	171.18271	3	211.65544
24	9.71249	24	90.64938	25	91.06493	4	131.11867	4	171.58740	4	212.05612
25	10.11118	25	90.58991	26	91.05463	5	131.52336	5	171.99229	5	212.46051
26	10.52187	26	90.99059	27	91.49392	6	131.92805	6	172.30697	6	212.86051
27	10.92656	27	91.39828	28	91.86401	7	132.33273	7	172.80116	7	213.27019
28	11.31214	28	91.79997	29	92.28701	8	132.73743	8	173.20615	8	214.74887
29	11.73593	29	92.67338	30	92.20466	9	133.14211	9	173.61083	9	214.07956
30	12.14062	30	92.60934	230	93.07807	330	133.54680	430	174.01552	530	214.48425
31	12.54531	31	93.01040	240	93.47267	340	137.59267	440	178.06239	540	218.05239
32	12.94999	32	93.41876	250	93.88744	350	137.95148	450	178.42021	550	218.88894
33	13.35468	33	93.83241	260	94.29213	360	134.35617	460	174.82420	560	219.34050
34	13.75937	34	94.22809	270	94.66624	370	134.76886	470	175.22958	570	219.98381
35	14.14065	35	94.53278	280	95.10151	380	135.16555	480	175.67023	580	216.04045
36	14.58874	36	95.03747	290	95.50619	390	135.57023	490	176.03896	590	216.50768
37	14.97343	37	95.44215	300	95.91088	400	136.37951	500	176.44365	600	216.91237
38	15.37812	38	95.84684	310	96.31557	410	136.78229	510	177.23024	610	217.31706
39	15.78280	39	96.25153	320	96.72026	420	137.18988	520	177.63771	620	218.12643
40	16.18749	40	96.65622	240	97.12494	340	137.59267	440	178.06239	540	218.53112
41	16.59218	41	97.05690	250	97.93432	350	137.99336	450	178.42021	550	219.03453
42	16.99616	42	97.46559	260	98.33900	360	138.40304	460	178.81777	560	219.34050
43	17.40155	43	97.87028	270	98.73900	370	138.80733	470	179.22666	570	220.23191
44	17.80624	44	98.27497	280	98.74369	380	139.21242	480	179.68114	580	220.44987
45	18.21093	45	98.67745	290	99.14888	390	139.61717	490	180.08583	590	220.55426
46	18.61561	46	99.08343	300	99.53307	400	140.02179	500	180.49052	600	220.95224
47	19.02030	47	99.48803	310	99.88271	410	140.42448	510	180.85251	610	221.36393
48	19.42499	48	99.89271	320	100.36244	420	140.83137	520	181.29989	620	221.76862
49	19.83968	49	100.29840	330	101.70458	430	141.23585	530	181.70458	630	222.17331

60	20.23436	150	60.70309	250	101.17182	350	141.64054	450	182.10927	550	222.57799	650	263.04672	750	303.51545	850	343.98417	950	384.45259
1	20.63905	1	61.10778	2	101.51246	1	142.04523	1	182.51395	1	222.98268	1	263.45141	1	303.92013	1	344.38886	1	384.85759
2	21.04374	2	101.98119	2	142.45992	2	182.91864	2	233.38737	2	263.85699	2	304.32482	2	345.73355	2	385.26227	2	385.66696
3	21.44812	3	101.91715	3	142.85888	3	182.85620	3	233.79206	3	263.70978	3	304.12551	3	345.18623	3	385.66696	3	386.07165
4	21.85311	4	102.79356	4	143.25929	4	183.78082	4	244.19674	4	264.65847	4	305.13149	4	345.60292	4	386.07165	4	386.07165
5	22.25780	5	102.72653	5	103.19525	5	143.66398	5	184.53729	5	223.60143	5	265.07016	5	305.53888	5	346.07661	5	386.47763
6	22.66249	6	103.13121	6	103.50994	6	144.05686	6	184.30612	6	225.00612	6	265.47484	6	305.94357	6	346.42230	6	386.88102
7	23.00747	7	104.04663	7	104.47335	7	184.94208	7	225.41080	7	265.87953	7	306.34826	7	346.87698	7	387.28571	7	387.65071
8	23.41865	8	104.94059	8	104.87804	8	185.81549	8	226.24422	8	266.75294	8	306.21677	8	347.62636	8	388.05058	8	388.05058
9	23.87655	9	104.34382	9	104.81400	9	185.75145	9	226.20218	9	266.68890	9	307.15763	9	347.62636	9	388.05058	9	388.05058
60	24.28124	160	64.74996	260	105.21869	360	145.68741	460	186.15614	560	226.62487	660	267.09359	760	307.56232	860	348.03104	960	388.49977
1	24.65652	1	65.15465	1	105.62338	1	146.09219	1	186.96551	1	227.43424	1	267.90297	1	308.37169	1	348.80402	1	389.30913
2	25.05061	2	65.56934	2	106.02806	2	146.49679	2	187.37020	2	227.83893	2	268.30765	2	308.76538	2	349.25111	2	389.71383
3	25.45530	3	65.96602	3	106.43275	3	146.90148	3	187.78489	3	228.43462	3	269.71234	3	309.64797	3	349.64797	3	389.11852
4	25.8998	4	66.16871	4	106.83744	4	147.30616	4	188.17958	4	228.64830	4	269.11703	4	309.58757	4	350.05448	4	390.52321
5	26.34667	5	66.77340	5	107.24212	5	148.71085	5	188.58426	5	229.05299	5	269.51727	5	309.99144	5	350.45917	5	390.92289
6	26.79236	6	67.17809	6	107.64681	6	148.11554	6	189.98805	6	229.45768	6	269.95260	6	310.30513	6	350.83886	6	391.33258
7	27.11405	7	67.58277	7	108.05150	7	148.52777	7	189.39364	7	229.86336	7	270.31019	7	310.79854	7	351.73727	7	391.14196
8	27.51873	8	67.98746	8	108.45619	8	149.29291	8	190.81895	8	230.36705	8	270.75758	9	311.60450	9	351.67323	9	391.14196
9	27.93542	9	68.39215	9	108.86087	9	149.32660	9	191.87833	9	231.40550	9	271.10406	9	312.01388	9	352.42260	9	392.95133
70	28.73281	170	68.79683	270	109.26556	370	149.73429	470	190.20301	570	230.67174	670	270.14046	770	311.60919	870	352.07792	970	392.54664
1	28.72380	1	69.20152	1	109.67025	1	150.13897	1	190.60770	1	231.07643	1	271.54515	1	312.01388	1	352.42260	1	392.95133
2	29.15748	2	69.60621	2	110.07493	2	150.54366	2	191.01239	2	231.48111	2	272.14857	2	312.88729	2	353.35602	2	393.76070
3	29.5217	3	70.01910	3	110.47062	3	150.94835	3	191.41707	3	231.89890	3	272.34543	3	312.92325	3	353.21938	3	394.16539
4	29.96866	4	70.41558	4	110.88481	4	151.35304	4	191.82176	4	232.29049	4	272.75921	4	313.22794	4	353.66667	4	394.57008
5	30.35154	5	70.82027	5	111.28900	5	151.75712	5	192.22645	5	232.69518	5	273.16390	5	314.03731	5	354.56064	5	394.97427
6	30.76223	6	71.22496	6	111.69368	6	152.16241	6	192.63114	6	233.09886	6	273.50455	7	314.44200	7	355.37945	7	395.18101
7	31.16092	7	71.62965	7	112.09837	7	152.56710	7	193.03582	7	233.90924	7	274.37790	8	314.44669	8	355.35452	8	395.78184
8	31.56561	8	72.03333	8	112.50306	8	152.97178	8	193.44051	8	234.31397	9	274.78265	9	315.25138	9	355.70210	9	396.18884
9	31.97029	9	72.43902	9	112.91777	9	153.80777	9	193.81520	9	235.09977	9	275.10406	9	316.01388	9	356.42350	9	396.53932
80	32.37498	180	72.84371	280	113.31243	380	153.78116	480	194.24989	580	234.71861	680	275.18734	780	315.65606	880	356.12479	980	396.53932
1	32.77967	1	73.24339	1	113.71712	1	154.18585	1	195.64547	1	235.12330	1	275.52022	1	316.06075	1	356.29486	1	396.98820
2	33.18436	2	73.65308	2	114.12181	2	154.59053	2	195.05296	2	235.52799	2	275.99671	2	316.46544	2	356.93416	2	397.40286
3	33.58904	3	74.05777	3	114.52649	3	154.99522	3	195.46395	3	235.93267	3	276.40170	3	316.70103	3	357.33885	3	397.80758
4	33.98373	4	74.46246	4	114.91118	4	155.39911	4	195.86863	4	236.33736	4	276.80609	4	317.74811	4	357.43554	4	398.21226
5	34.38282	5	74.86714	5	115.33587	5	155.80460	5	196.27332	5	236.74205	5	277.21077	5	317.67950	5	358.18223	5	398.61695
6	34.80310	6	75.27173	6	116.74056	6	156.20928	6	196.67801	6	237.14673	6	277.61546	6	318.80119	6	358.52291	6	399.21644
7	35.22779	7	75.67652	7	116.14524	7	157.61397	7	197.08270	7	237.55142	7	278.02015	7	318.48867	7	358.95760	7	399.42633
8	35.61248	8	76.08121	8	116.54933	8	157.01866	8	197.48758	8	237.95611	8	278.42484	8	318.89356	8	359.32329	8	399.81301
9	36.01717	9	76.48589	9	116.95462	9	157.42334	9	197.89207	9	238.36080	9	278.82952	9	319.29825	9	359.76938	9	400.23570
90	36.42185	190	76.89058	290	117.35931	390	157.82803	490	198.28676	590	238.76548	690	279.23421	790	319.70294	890	360.17166	990	400.64039
1	36.82654	1	77.69995	1	118.16868	1	158.63741	1	199.10613	1	239.17017	1	279.63807	1	310.10762	1	360.57635	1	401.04508
2	37.23213	2	78.10464	2	118.57337	2	159.04209	2	199.51082	2	239.97955	2	280.04358	2	320.51231	2	401.44976	2	401.85493
3	37.65802	3	78.50933	3	118.97805	3	159.44678	3	199.91551	3	240.36423	3	280.44827	3	321.38572	3	401.85493	3	401.85493
4	38.00600	4	78.91402	4	119.31874	4	159.85147	4	200.32019	4	240.86296	4	281.02015	4	321.32169	4	402.25914	4	402.25914
5	38.44529	5	79.31870	5	119.78743	5	160.25616	5	200.72888	5	241.13361	5	282.06702	5	321.72337	5	402.19514	5	402.19514
6	38.89098	6	79.72339	6	120.19212	6	160.66084	6	201.2957	6	241.59829	6	282.06702	7	322.53875	7	363.00447	7	403.47320
7	39.25466	7	80.12808	7	120.50680	7	161.06553	7	201.53426	7	242.02998	8	282.47171	8	322.94043	8	363.40916	8	403.87789
8	39.6935	8	80.53276	8	121.00119	9	161.47022	9	201.39804	9	242.40767	9	282.87640	9	323.34512	9	363.81385	9	404.28577

AREA—HECTARES TO ACRES

[Reduction factor: 1 hectare = 2.471043930 acres]

	Hectares	Acre	Hectares	Acre	Hectares	Acre	Hectares	Acre	Hectares	Acre	Hectares	Acre	Hectares	Acre	Hectares	Acre
0	100	247.10439	200	494.20879	300	741.31318	400	988.41757	500	1,235.52197	600	1,482.62636	700	1,729.73075	800	1,976.83514
1	2.47104	1	495.57544	1	986.88957	1	1,237.98301	1	1,485.09749	1	1,732.20180	1	1,979.36619	1	2,233.93954	
2	4.94209	2	982.01648	2	949.51587	2	746.25527	2	939.55956	2	1,240.46105	2	1,487.56845	2	1,781.77223	
3	7.41313	3	1,234.51752	3	501.62192	3	748.72631	3	995.83075	3	1,245.95310	3	1,492.05949	3	1,731.47884	
4	9.88418	4	256.98857	4	504.06926	4	751.19735	4	998.30175	4	1,245.40614	4	1,492.51053	4	1,739.61933	
5	12.3522	5	259.45961	5	506.56401	5	756.66845	5	1,000.72779	5	1,247.87718	5	1,494.98158	5	1,742.08571	
6	14.82626	6	261.93066	6	509.03505	6	756.13844	6	1,003.24384	6	1,250.34823	6	1,497.45262	6	1,744.55701	
7	17.29731	7	264.40170	7	511.90059	7	758.61049	7	1,005.71488	7	1,252.81927	7	1,499.93637	7	1,747.02806	
8	19.76835	8	265.87274	8	513.97714	8	761.08153	8	1,008.18592	8	1,254.29032	8	1,499.33455	8	1,749.49910	
9	22.23940	9	269.34379	9	516.44818	9	763.56158	9	1,010.65697	9	1,257.76132	9	1,504.85715	9	1,751.07510	
10	24.71044	10	271.84483	10	518.91923	10	766.03262	10	1,013.12801	10	1,260.23240	10	1,507.33680	10	1,754.44119	
11	27.18148	11	276.25588	11	521.39027	11	768.49466	11	1,015.59906	11	1,262.70345	11	1,509.80784	11	1,756.91223	
12	29.65233	12	276.75692	12	523.86131	12	770.96571	12	1,018.07010	12	1,265.17449	12	1,512.28899	12	1,759.38328	
13	32.12357	13	279.22796	13	526.33236	13	773.43675	13	1,020.34114	13	1,267.45554	13	1,514.74939	13	1,761.55332	
14	34.59462	14	281.69901	14	528.80340	14	775.90779	14	1,023.12129	14	1,270.11658	14	1,517.62537	14	1,764.22097	
15	37.06566	15	284.17005	15	531.27444	15	778.37884	15	1,025.88323	15	1,272.58762	15	1,519.62920	15	1,766.96461	
16	39.53670	16	286.64110	16	533.74549	16	780.84988	16	1,027.58677	16	1,275.05867	16	1,522.62636	16	1,769.47244	
17	42.00775	17	289.11214	17	536.21653	17	783.32095	17	1,030.25232	17	1,277.52971	17	1,524.63411	17	1,771.73650	
18	44.47879	18	291.58318	18	538.88758	18	785.79197	18	1,032.93936	18	1,280.00776	18	1,527.10515	18	1,774.00554	
19	46.94963	19	294.05423	19	541.15862	19	788.25301	19	1,035.36741	19	1,281.47180	19	1,529.76149	19	1,776.88059	
20	49.42088	20	296.52527	20	543.62966	20	790.73406	20	1,037.83845	20	1,284.94284	20	1,532.04724	20	1,779.15163	
21	51.89192	21	298.98632	21	546.10071	21	793.20510	21	1,040.30949	21	1,287.41389	21	1,534.51828	21	1,781.02267	
22	54.36297	22	301.46736	22	548.57175	22	798.67156	22	1,042.80554	22	1,289.88493	22	1,536.98932	22	1,784.09272	
23	56.83401	23	303.98840	23	551.04820	23	798.14749	23	1,045.25158	23	1,292.35958	23	1,539.46037	23	1,788.56476	
24	59.30505	24	306.46945	24	553.51384	24	800.61823	24	1,047.72263	24	1,294.27072	24	1,541.93114	24	1,793.03861	
25	61.77610	25	308.88045	25	555.98488	25	803.89828	25	1,050.19367	25	1,297.29805	25	1,546.40246	25	1,803.61124	
26	64.24714	26	311.31549	26	558.56393	26	805.56032	26	1,052.66471	26	1,299.76911	26	1,547.87350	26	1,793.07789	
27	66.71819	27	313.82258	27	560.22697	27	808.03137	27	1,055.13376	27	1,302.24015	27	1,551.34454	27	1,796.44894	
28	69.18923	28	316.23362	28	563.39802	28	810.71200	28	1,057.60680	28	1,304.71120	28	1,551.81559	28	1,798.19198	
29	71.66027	29	318.76467	29	565.86906	29	812.97345	29	1,060.07785	29	1,307.18224	29	1,554.28663	29	1,801.39103	
30	74.13132	30	321.23571	30	568.34010	30	815.44550	30	1,062.44880	30	1,309.65328	30	1,556.75768	30	1,803.56207	
31	76.60236	31	323.70675	31	571.81115	31	817.91554	31	1,064.30937	31	1,312.12433	31	1,559.22677	31	1,809.66646	
32	79.07341	32	326.17780	32	573.28219	32	820.38658	32	1,067.49098	32	1,314.55373	32	1,561.69976	32	1,813.43751	
33	81.54445	33	328.64884	33	578.75324	33	822.85763	33	1,069.96202	33	1,317.06641	33	1,564.17081	33	1,818.73616	
34	84.01549	34	331.11989	34	581.22428	34	825.32867	34	1,072.33037	34	1,319.53745	34	1,566.41865	34	1,821.74224	
35	86.48554	35	333.50993	35	580.69532	35	827.79972	35	1,074.90411	35	1,322.08850	35	1,569.11290	35	1,816.51229	
36	88.95578	36	336.06197	36	583.16637	36	830.27076	36	1,077.47515	36	1,324.47535	36	1,571.55394	36	1,818.68333	
37	91.42683	37	338.53302	37	585.63749	37	832.74180	37	1,079.84620	37	1,326.50559	37	1,574.05498	37	1,821.15938	
38	93.89667	38	341.00406	38	588.10846	38	835.21248	38	1,082.31724	38	1,329.42163	38	1,576.52603	38	1,823.63042	
39	96.37071	39	343.47511	39	590.79750	39	837.68389	39	1,084.78829	39	1,331.89268	39	1,578.99707	39	1,826.10129	
40	98.8476	40	345.94615	40	593.05054	40	840.15494	40	1,087.25933	40	1,334.36372	40	1,581.66812	40	1,828.57251	
41	101.31280	41	348.41719	41	595.52159	41	842.63598	41	1,092.39397	41	1,336.69477	41	1,583.39916	41	1,831.04555	
42	103.78985	42	350.88824	42	597.59263	42	847.66367	42	1,097.02412	42	1,341.76785	42	1,588.88125	42	1,833.40120	
43	106.25489	43	353.35928	43	600.46367	43	847.68087	43	1,094.67246	43	1,344.24790	43	1,591.33229	43	1,835.38664	
44	108.72933	44	355.83033	44	602.33472	44	850.03911	44	1,097.43501	44	1,347.08149	44	1,593.82334	44	1,837.51018	
45	111.19698	45	358.30137	45	605.40576	45	852.51016	45	1,098.61455	45	1,346.71894	45	1,593.82334	45	1,838.02312	
46	113.66802	46	360.77241	46	607.87581	46	854.98120	46	1,102.08559	46	1,349.18959	46	1,596.29438	46	1,843.39677	
47	116.13006	47	363.24346	47	610.44224	47	857.43229	47	1,104.56664	47	1,351.66103	47	1,598.76542	47	1,846.36982	
48	118.61011	48	365.71450	48	612.81869	48	859.92329	48	1,077.02767	48	1,354.32047	48	1,601.23647	48	1,848.34086	
49	121.08115	49	368.18555	49	862.39433	49	862.28994	49	1,097.49872	49	1,356.60312	49	1,603.70751	49	1,850.81190	

50	123.55220	250	617.76098	350	864.86538	450	1.111.96977	550	1.359.07416	650	1.606.17855	750	1.853.28295	850	2.100.38734	950	2.347.49173
51	126.02324	1	373.12163	1	620.23203	2	867.33642	1	1.114.44081	2	1.606.64960	1	1.855.57389	1	2.105.32943	1	2.349.62787
52	128.49428	2	375.39868	1	622.70307	2	869.89746	2	1.116.91186	2	1.611.12064	2	1.858.52254	2	2.105.32943	2	2.352.43382
53	130.90533	3	378.06972	3	625.17411	4	872.27851	3	1.119.38290	3	1.613.59169	3	1.860.69088	3	2.107.80047	3	2.354.90487
54	133.46337	4	380.54077	4	627.64516	5	874.74955	4	1.121.83394	4	1.616.06273	4	1.861.16712	4	2.110.27152	4	2.357.84795
55	135.90742	5	383.01181	5	630.11620	5	877.22060	5	1.124.32499	5	1.618.53377	5	1.865.63817	5	2.112.74256	5	2.359.84695
56	138.37846	6	385.48285	6	632.58725	6	879.69164	6	1.126.79663	6	1.621.00482	6	1.868.10921	6	2.113.21360	6	2.362.58094
57	140.84550	7	387.95390	7	635.10268	7	882.16368	7	1.129.26708	7	1.623.47586	7	1.870.58074	7	2.117.68465	7	2.364.78904
58	143.30355	8	390.44944	8	637.52933	8	884.63373	8	1.131.78812	8	1.625.94691	8	1.873.05130	8	2.120.15569	8	2.367.26099
59	145.79159	9	392.89598	9	640.00038	9	887.10477	9	1.134.20916	9	1.628.41795	9	1.875.52234	9	2.122.62674	9	2.369.31113
60	148.26264	160	395.36703	260	642.47142	360	889.57381	460	1.136.66201	560	1.383.78649	660	1.630.88899	760	1.877.99339	860	2.137.09778
61	150.73368	1	397.33807	1	644.92427	1	892.04846	1	1.139.15125	1	1.386.55564	1	1.633.36004	1	1.880.46443	1	2.137.67222
62	153.20474	2	400.39012	2	647.41351	2	894.31790	2	1.141.62320	2	1.388.22669	2	1.635.83106	2	1.882.93547	2	2.137.38387
63	155.75777	3	402.78016	3	649.88555	3	896.38895	3	1.144.09334	3	1.391.19773	3	1.638.30213	3	1.885.40652	3	2.132.51091
64	158.16481	4	405.25120	4	652.35560	4	899.15995	4	1.146.56438	4	1.393.66847	4	1.640.70317	4	1.887.87756	4	2.134.58196
65	160.67786	5	407.72225	5	654.82664	5	901.9303	5	1.149.03543	5	1.396.13882	5	1.643.24421	5	1.890.34861	5	2.138.55739
66	163.08890	6	410.91939	6	657.29769	6	904.40928	6	1.151.50457	6	1.398.10186	6	1.648.71526	6	1.892.81965	6	2.139.24044
67	165.55994	7	412.66534	7	659.76873	7	906.47312	7	1.153.97752	7	1.401.08191	7	1.648.16330	7	1.893.00969	7	2.142.93939
68	168.13538	8	415.13538	8	662.32977	8	909.49937	8	1.155.55925	8	1.403.55925	8	1.650.65733	8	1.897.76174	8	2.144.99498
69	170.50203	9	417.60642	9	664.71082	9	911.81521	9	1.158.91960	9	1.406.02400	9	1.653.12839	9	1.900.23278	9	2.147.37318
70	172.97308	170	420.07747	270	667.18186	370	914.28225	470	1.161.39065	570	1.408.49504	670	1.655.59943	770	1.902.70383	870	2.149.80822
71	175.44412	1	422.44851	1	669.63291	1	916.75757	1	1.163.66169	2	1.413.43713	2	1.660.54152	2	1.907.64590	2	2.154.72926
72	177.95156	2	425.01956	2	672.12395	2	916.22334	2	1.166.33273	2	1.414.09817	3	1.663.01257	3	1.910.11696	3	2.157.21335
73	180.38621	3	427.19960	3	674.58499	3	921.69939	3	1.168.80378	3	1.415.19817	3	1.665.48361	4	1.912.58800	4	2.160.62934
74	182.86725	4	429.36164	4	677.06004	4	924.17043	4	1.170.27482	4	1.418.37922	4	1.667.45667	5	1.915.05905	5	2.162.16344
75	185.32829	5	432.32369	5	679.53708	5	926.64447	5	1.173.74587	5	1.420.85026	5	1.668.42570	6	1.917.33009	6	2.164.63444
76	187.79934	6	434.90373	6	682.08812	6	929.11252	6	1.176.21691	6	1.423.32310	6	1.670.42570	7	1.920.00113	7	2.167.10553
77	190.20738	7	437.74748	7	684.47917	7	931.58525	7	1.178.68795	7	1.425.92335	7	1.672.86774	7	1.922.47218	8	1.929.57657
78	192.74143	8	439.94582	8	686.95021	8	934.05611	8	1.181.15900	8	1.428.26339	8	1.675.36578	9	1.932.47577	9	2.146.68096
79	195.21247	9	442.31666	9	689.42126	9	936.52565	9	1.183.63004	9	1.430.73444	9	1.677.83883	9	1.941.94322	9	2.149.15201
80	197.68351	180	447.78791	280	691.85230	380	938.06966	480	1.181.10109	580	1.438.20548	680	1.682.30987	780	1.927.41427	880	2.176.51866
81	200.15456	1	447.25895	1	694.36334	1	941.46774	1	1.188.57213	1	1.435.67652	1	1.682.78092	1	1.929.38531	1	2.176.98970
82	202.62560	2	449.83439	2	696.83439	2	943.93788	2	1.191.04317	2	1.438.14757	2	1.685.25196	2	1.932.35635	2	2.177.46075
83	205.09665	3	452.20104	3	699.40983	3	949.13147	3	1.194.09817	3	1.440.61961	3	1.687.72300	3	1.934.82740	3	2.178.91317
84	207.56769	4	454.67208	4	701.77648	4	948.38687	4	1.195.98526	4	1.443.08966	4	1.690.19403	4	1.937.30844	4	2.181.40283
85	210.3873	5	457.14313	5	704.24752	5	951.55191	5	1.198.15631	5	1.445.96670	5	1.691.66509	5	1.939.76949	5	2.186.87388
86	212.50978	6	459.61417	6	705.71856	6	953.82296	6	1.200.92735	6	1.448.03174	6	1.695.13614	6	1.942.24053	6	2.186.44932
87	214.98082	7	462.08521	7	709.18961	7	956.29079	7	1.204.50279	7	1.450.50279	7	1.697.60718	7	1.944.71157	7	2.187.80236
88	217.45187	8	464.55626	8	711.66065	8	958.76504	8	1.205.86944	8	1.452.97383	8	1.700.07822	8	1.947.18262	8	2.187.81701
89	219.92291	9	467.02730	9	714.13170	9	961.23069	9	1.208.34048	9	1.455.44487	9	1.702.54927	9	1.949.65366	9	2.183.86245
90	222.39395	190	469.49835	290	716.60274	390	963.70713	490	1.210.81153	590	1.457.91592	690	1.705.02031	790	1.952.12471	890	2.199.22910
91	224.86500	1	471.96939	1	719.07378	1	966.17188	1	1.215.73361	2	1.460.38694	2	1.707.49136	2	1.954.39575	2	2.201.70014
92	227.33604	2	474.44043	2	721.54483	2	968.64222	2	1.215.73361	2	1.462.85801	2	1.709.96240	2	1.957.06679	2	2.204.21719
93	229.80709	3	476.91148	3	724.01587	3	971.12026	3	1.218.22466	3	1.465.32805	3	1.712.43344	3	1.959.53784	3	2.205.64223
94	232.27813	4	479.38252	4	973.59731	4	976.48692	4	1.220.69570	4	1.467.80009	4	1.714.90449	4	1.962.00888	4	2.209.11327
95	234.7917	5	481.85337	5	978.59796	5	976.06235	5	1.223.16675	5	1.470.27114	5	1.717.37553	5	1.964.47992	5	2.211.58432
96	237.22022	6	484.32461	6	731.42920	6	978.53340	6	1.225.63779	6	1.472.74218	6	1.719.84658	6	1.966.95097	6	2.214.05536
97	239.69126	7	486.79565	7	733.90005	7	981.00444	7	1.228.10883	7	1.475.21232	7	1.722.31762	7	1.969.42201	7	2.216.52441
98	242.16331	8	489.26670	8	736.37109	8	983.47448	8	1.230.50988	8	1.477.68427	8	1.724.78866	8	1.971.89306	8	2.218.21084
99	244.63335	9	491.93774	9	985.94553	9	1,233.05092	9	1,480.15531	9	1,481.55311	9	1,727.25971	9	1,974.36415	9	2,211.46849

VOLUME—CUBIC YARDS TO CUBIC METERS

[Reduction factor: 1 cubic yard = 0.7645594453 cubic meter]

	Cubic yards yards meters															
0	100	76.45504	200	152.91189	300	229.36783	400	305.82378	500	382.27972	600	458.73567	700	535.19161	800	611.60756
1	0.76456	77.22050	1	153.67545	2	230.13259	3	305.84428	4	383.08884	5	460.26479	6	536.72073	7	613.16668
2	1.52912	77.98506	2	154.44101	3	230.89565	4	307.35290	5	383.57340	6	461.02935	7	537.48229	8	613.94123
3	2.29568	78.74962	3	155.20537	4	231.66151	5	308.17146	6	384.52736	7	461.79390	8	538.24985	9	614.70579
4	3.0524	79.51418	4	155.97013	5	232.42607	6	308.88202	7	385.35776	8	461.57036	9	538.10441	10	614.42112
5	3.82280	80.27874	5	156.73469	6	233.19063	7	309.64558	8	386.10252	9	462.58646	10	539.77897	11	615.47035
6	4.58736	81.04330	6	157.49925	7	158.26381	8	234.71975	9	310.41113	10	386.86708	11	463.32302	12	539.77897
7	5.3592	81.80786	7	158.07866	8	159.02336	9	235.48431	10	311.7569	11	387.63164	12	464.08758	13	540.54533
8	6.1648	82.57242	8	159.79262	9	236.24887	10	312.70481	11	388.93620	12	465.25214	13	541.30809	14	616.99447
9	6.88104	83.33698	9	159.79262	10	237.01343	11	312.70481	12	389.16076	13	465.61670	14	542.07265	15	617.69403
10	7.64559	84.10154	11	160.55248	12	237.77799	13	314.23393	14	390.68988	15	466.38226	16	542.83212	17	618.29315
11	8.41015	84.86610	12	161.32204	13	238.54255	14	315.09849	15	391.45444	16	467.14582	17	543.60177	18	620.05771
12	9.17471	85.63066	13	162.08660	14	239.30711	15	315.76305	16	392.21900	17	468.04776	18	545.30088	19	620.82227
13	9.9327	86.39522	14	163.61572	15	240.07167	16	316.52765	17	392.98335	18	469.89444	19	545.89544	20	621.56683
14	10.70883	87.15978	15	164.83623	16	241.60078	17	317.29217	18	393.74811	19	470.20406	20	546.66000	21	622.33139
15	11.46389	87.92434	16	165.44484	17	242.35354	18	318.05673	19	394.51267	20	470.56862	21	543.15959	22	623.88051
16	12.23395	88.68880	17	165.99040	18	243.12930	19	318.82129	20	395.27723	21	471.73318	22	547.42256	23	624.85051
17	12.99575	89.45346	18	166.73796	19	243.8946	20	319.58836	21	396.04179	22	472.49774	23	548.95368	24	625.46507
18	13.76007	90.21801	19	167.43852	20	244.66078	21	320.35041	22	396.80635	23	473.26230	24	549.71824	25	624.17419
19	14.52663	90.98257	20	168.29119	21	245.45902	22	321.11497	23	397.57091	24	474.02686	25	550.48280	26	626.93875
20	15.29119	120	21	169.96764	22	246.42336	23	321.87953	24	398.35547	25	475.55587	26	551.24736	27	627.03330
21	16.0575	121	22	170.63131	23	247.32765	24	322.64409	25	399.10033	26	476.32053	27	552.01192	28	628.45786
22	16.82031	122	23	171.30587	24	248.19676	25	324.95207	26	400.86439	27	477.76748	28	553.34104	29	629.22424
23	17.58487	123	24	171.94081	25	249.95765	26	325.71730	27	402.62193	28	478.05059	29	554.30560	30	629.96968
24	18.34943	124	25	172.60537	26	250.71726	27	326.51377	28	404.39371	29	478.84965	30	555.81654	31	630.76154
25	19.11999	125	26	173.25988	27	251.48182	28	327.30723	29	405.15827	30	479.51421	31	555.83472	32	631.56100
26	19.87955	126	27	173.93449	28	252.17243	29	328.06888	30	406.92833	31	480.14333	32	555.83472	33	632.20065
27	20.64311	127	28	174.60905	29	173.53499	30	328.75505	31	407.68739	32	481.50978	33	556.03522	34	633.81117
28	21.40766	128	29	175.83631	30	174.31955	31	329.43144	32	408.45195	33	482.90789	34	557.36384	35	633.81978
29	22.17222	129	30	176.68217	31	175.43811	32	330.19680	33	409.45195	34	483.90789	35	557.36384	36	633.81978
30	22.93578	130	31	177.40713	32	176.96764	33	321.87953	34	410.21651	35	484.67245	36	558.12840	37	634.58434
31	23.70134	131	32	178.15729	33	177.61323	34	322.64409	35	411.98159	36	485.43701	37	559.89295	38	635.11346
32	24.46590	132	33	178.92185	34	177.37779	35	323.30868	36	413.75107	37	486.20157	38	560.55751	39	636.13436
33	25.23046	133	34	179.68641	35	178.14235	36	324.05825	37	415.51018	38	487.62207	39	561.88020	40	637.33396
34	25.99502	134	35	180.45997	36	178.90691	37	325.30235	38	417.31880	39	488.37069	40	562.67538	41	638.49714
35	26.75558	135	36	181.21553	37	179.67147	38	326.12741	39	418.09390	40	489.49525	41	561.95119	42	638.49714
36	27.52414	136	37	182.98008	38	180.43603	39	327.85336	40	419.80386	41	490.82981	42	562.71575	43	639.17170
37	28.28670	137	38	184.74464	39	181.20059	40	257.68563	41	334.87704	42	420.56842	43	563.48031	44	640.71625
38	29.05226	138	40	185.50920	41	181.96515	42	258.42109	43	334.87704	44	421.33298	45	564.24487	46	640.70982
39	29.81782	139	41	186.27376	42	182.72971	43	259.18565	44	335.64160	45	422.05754	46	565.00943	47	641.46537
40	30.58238	140	42	187.03832	43	183.49427	44	259.98021	45	336.40616	46	423.86210	47	565.77399	48	642.22993
41	31.3494	141	43	187.80288	44	184.35883	45	260.71477	46	337.17072	47	425.63666	48	566.53855	49	642.94449
42	32.1150	142	44	188.56744	45	185.23239	46	261.47933	47	338.39122	48	427.30311	49	568.06767	50	642.94449
43	32.87056	143	45	189.33220	46	185.78795	47	262.42389	48	338.69883	49	428.81716	50	568.06767	51	642.94449
44	33.64662	144	46	190.09636	47	186.55250	48	263.00845	49	339.46439	50	429.32323	51	568.83223	52	645.28817
45	34.40218	145	47	190.86112	48	187.17106	49	263.77301	50	340.99531	51	430.14084	52	569.59679	53	645.28817
46	35.1673	146	48	191.62568	49	188.08162	50	264.53771	51	341.75087	52	431.44946	53	570.36135	54	646.81729
47	35.9329	147	49	192.39024	50	188.84618	51	265.30213	52	342.15807	53	432.12591	54	571.12585	55	647.03779
48	36.69859	148	50	183.15480	51	189.60744	52	266.06669	53	343.22826	54	433.44542	55	571.89047	56	648.36464
49	37.46341	149	51	183.91936	52	190.37530	53	266.83125	54	343.28719	55	434.09245	56	572.65502	57	649.11097

50	38.22797	150	114.68392	250	191.13986	350	267.59581	450	344.05175	550	420.50769	650	496.96364	750	573.41958	850	649.87553	950	726.33147
1	38.9253	1	115.44848	1	191.90442	1	268.36637	1	345.81631	1	421.72820	1	497.49276	1	574.18414	1	650.64006	1	727.09603
2	39.75709	2	116.15804	2	192.66898	2	269.12492	2	345.58087	2	422.63681	2	498.49276	2	574.94870	2	651.40406	2	727.86012
3	40.5165	3	116.37760	3	193.43354	3	269.88948	3	346.35453	3	422.80137	3	499.55732	3	575.71326	3	652.16921	3	728.65513
4	41.28621	4	117.74215	4	194.1810	4	270.65404	4	347.10999	4	422.56593	4	500.21888	4	576.47782	4	653.93377	4	729.38971
5	42.08977	5	118.50871	5	194.92266	5	271.41860	5	347.87455	5	424.33049	5	500.78444	5	577.24238	5	653.69833	5	730.15427
6	42.81533	6	119.27127	6	195.72722	6	272.18376	6	348.63911	6	425.09505	6	501.55100	6	582.06994	6	654.72829	6	730.19883
7	43.55989	7	120.03583	7	196.49178	7	272.94772	7	349.43036	7	425.85961	7	502.31556	7	582.22744	7	655.7150	7	731.68339
8	44.34445	8	120.80339	8	197.25634	8	273.71228	8	350.18623	8	426.63417	8	503.08012	8	579.56006	8	655.95200	8	732.44795
9	45.10901	9	121.36495	9	198.10290	9	274.47664	9	350.93279	9	427.38873	9	503.44667	9	580.30062	9	656.75656	9	733.12151
60	60	160	222.32951	260	198.78546	360	275.24140	460	351.67734	560	428.91725	660	504.60923	760	581.06518	860	657.51112	960	730.97707
1	46.68813	1	123.55007	1	195.55002	1	276.00996	1	352.46190	1	428.91725	1	505.57759	1	581.82979	1	658.25658	1	734.74163
2	48.16725	2	123.85863	2	197.31457	2	276.77552	2	352.22646	2	429.68241	2	506.33835	2	569.59430	2	659.05204	2	735.50619
3	48.93180	3	124.42319	3	201.07913	3	277.53058	3	353.99102	3	430.44697	3	506.90291	3	583.35886	3	659.81480	3	736.27072
4	49.66336	4	125.38775	4	201.84360	4	278.29664	4	354.75558	4	431.21153	4	507.66747	4	584.12342	4	660.57936	4	737.03531
5	50.40929	5	126.15231	5	202.60825	5	279.06240	5	355.20104	5	429.97609	5	508.32023	5	584.3392	5	661.70959	5	737.79986
6	51.25458	6	126.91887	6	203.37281	6	279.82876	6	356.28470	6	432.74065	6	509.19659	6	585.63254	6	662.10848	6	738.56442
7	51.98004	7	127.68143	7	204.17337	7	280.59332	7	357.09266	7	433.50251	7	510.61115	7	586.87304	7	662.87304	7	739.32898
8	52.73460	8	128.44599	8	204.90193	8	281.35788	8	357.81382	8	434.26976	8	510.72371	8	587.18165	8	663.63760	8	740.03354
9	53.51916	9	129.21055	9	205.66649	9	282.12244	9	358.57838	9	435.03432	9	511.49027	9	587.94621	9	664.40216	9	740.85810
70	70	170	129.07511	270	206.43105	370	282.88659	470	359.34294	570	435.79888	670	512.25883	770	588.71077	870	665.16672	970	741.62266
1	243.6315	1	283.6515	1	307.19561	1	284.16111	1	360.87206	1	437.38200	1	513.78953	1	589.47533	1	666.39128	1	741.38722
2	255.08282	2	311.30422	2	207.96017	2	285.18677	2	362.63662	2	438.09256	2	514.54851	2	590.23889	2	666.69584	2	743.15178
3	265.8284	3	312.26878	3	208.72473	3	285.04929	3	362.40118	3	438.85712	3	515.31307	3	591.00445	3	667.46040	3	744.68090
4	266.57740	4	313.03334	4	209.49423	4	285.94523	4	362.40118	4	438.85712	4	515.31307	4	591.76901	4	668.22496	4	745.44546
5	273.3196	5	133.19790	5	210.23385	5	286.70779	5	363.15574	5	439.62168	5	516.07763	5	592.53357	5	668.38951	5	745.44546
6	280.16052	6	134.56246	6	211.01841	6	287.47435	6	364.93030	6	441.15080	6	516.44219	6	594.38113	6	669.75407	6	746.21022
7	288.87108	7	135.22702	7	211.57453	7	288.23891	7	364.69486	7	441.15080	7	517.80674	7	670.57072	7	676.94268	7	747.37914
8	296.65364	8	136.09158	8	213.31209	8	285.76803	8	366.22397	8	442.67992	8	518.72125	8	594.82735	8	671.28319	8	748.50370
9	306.40920	9	136.36514	9	213.31209	9	285.76803	9	366.22397	9	442.67992	9	519.13386	9	595.9181	9	672.04777	9	748.50370
80	80	180	137.32070	280	214.07664	380	290.53229	480	366.98853	580	443.44448	680	519.90042	780	596.35637	880	672.81231	980	749.26826
1	61.95932	1	138.38526	1	214.84120	1	291.29715	1	367.75309	1	444.20904	1	510.66998	1	597.12093	1	673.57667	1	750.03282
2	62.69387	2	139.14982	2	215.06171	2	290.60526	2	367.17615	2	445.97360	2	512.12554	2	597.88549	2	674.31433	2	750.79738
3	63.48443	3	139.13138	3	216.37032	3	292.84267	3	369.28221	3	445.78161	3	522.19101	3	598.65005	3	675.10599	3	751.56193
4	64.22299	4	140.07784	4	217.13488	4	293.59083	4	370.46677	4	446.50272	4	522.59866	4	599.41461	4	675.32649	4	752.07865
5	64.98755	5	141.44350	5	217.88944	5	294.94523	5	370.81133	5	447.26728	5	523.72322	5	600.17916	5	676.63511	5	753.09105
6	65.75211	6	142.20806	6	218.66400	6	295.11995	6	371.57589	6	448.03183	6	524.48778	6	600.94372	6	677.39967	6	753.85561
7	66.51667	7	142.97262	7	219.42856	7	295.88451	7	372.34045	7	448.76639	7	525.25354	7	601.78828	7	678.14423	7	755.92874
8	67.28123	8	143.73718	8	220.19312	8	296.64906	8	373.10501	8	449.56095	8	526.01690	8	602.47284	8	678.92874	8	755.36473
9	68.05759	9	144.50174	9	220.95768	9	297.41362	9	373.86957	9	450.32551	9	526.78146	9	603.23740	9	679.69335	9	756.14929
90	90	190	145.26629	290	221.72224	390	298.17180	490	374.63413	590	451.09007	690	527.54602	790	604.00196	890	680.45791	990	756.91385
1	69.57491	1	146.33085	1	222.49680	1	298.94274	1	375.39869	1	451.85463	1	528.31052	1	604.76652	1	681.98703	1	757.67841
2	70.33947	2	146.79541	2	223.25136	2	299.70730	2	376.16325	2	452.61919	2	529.07514	2	605.53108	2	681.98703	2	758.44297
3	71.10403	3	147.55597	3	224.01592	3	300.47186	3	376.92781	3	453.38375	3	530.82074	3	606.20564	3	682.75158	3	759.20553
4	71.86859	4	148.32453	4	224.78048	4	301.23642	4	377.69237	4	454.14881	4	530.04216	4	607.06020	4	683.51614	4	759.72029
5	72.63315	5	149.08909	5	225.54505	5	302.00988	5	378.46693	5	454.91287	5	531.36881	5	607.82476	5	684.28070	5	760.73665
6	73.39771	6	149.85365	6	226.30960	6	302.76554	6	379.22148	6	455.67743	6	532.13337	6	608.35382	6	685.80982	6	762.26577
7	74.16227	7	150.61821	7	227.07416	7	303.53010	7	380.96064	7	456.44199	7	533.89793	7	609.33833	7	686.57438	7	763.03033
8	74.92883	8	151.38277	8	227.83871	8	304.29666	8	380.75065	8	457.20665	8	533.66249	8	610.11844	8	686.57438	8	763.03033
9	75.69139	9	152.14733	9	228.60327	9	305.05922	9	381.51516	9	457.97111	9	534.42705	9	610.88330	9	687.33894	9	763.73489

VOLUME—CUBIC METERS TO CUBIC YARDS

[Reduction factor: 1 cubic meter = 1.307942772 cubic yards]

42

Cubic meters yards	Cubic meters	Cubic yards													
0	100	130.79428	200	261.58855	300	392.38283	400	523.17711	500	653.97139	600	784.76566	700	915.55994	
1	1.30794	132.10222	1	264.20444	2	394.99877	1	524.48035	2	525.72929	2	786.07361	1	916.87678	
2	2.61589	2	133.41016	3	265.51238	3	396.30666	3	527.10094	3	527.80521	2	787.38155	2	918.17583
3	3.92383	3	134.71811	4	266.02603	4	397.61460	4	528.46088	4	529.71682	3	788.58949	3	919.48377
4	5.23177	4	136.03605	5	268.12827	5	398.92255	5	529.71682	5	560.51110	5	791.30538	4	920.09965
5	6.53971	5	137.33399	6	269.43621	6	400.23049	6	531.02477	6	661.81904	6	792.41132	5	922.09939
6	7.84766	6	138.61913	7	270.74415	7	401.53843	7	532.33271	7	663.12699	7	792.71554	6	923.40760
7	9.15650	7	139.90988	8	272.05210	8	402.84637	8	533.64065	8	664.44943	8	795.22921	7	925.02346
8	10.46354	8	141.25782	9	273.36604	9	404.15432	9	534.94859	9	665.74287	9	796.33715	9	927.33143
9	11.77148	9	142.56576	10	143.87370	210	274.66798	310	405.46226	410	510.66754	610	677.05081	710	798.63959
1	14.38737	1	145.18165	1	275.97592	1	406.77020	1	537.56454	1	668.33876	1	799.15303	1	810.45365
2	15.69331	2	146.48959	2	287.87287	2	408.78114	2	538.87424	2	669.66670	2	800.46098	2	811.74159
3	17.00326	3	147.79753	3	278.59181	3	409.38669	3	540.18036	3	670.97464	3	801.76892	3	812.55387
4	18.3120	4	149.10548	4	279.89975	4	410.69403	4	541.48831	4	672.28258	4	803.07686	4	813.35175
5	19.61914	5	150.41342	5	281.20770	5	412.00197	5	673.00197	5	674.59053	5	804.38480	5	814.65175
6	20.92708	6	151.72136	6	282.51564	6	413.30992	6	674.10419	6	674.83847	6	805.69275	6	816.07213
7	22.23203	7	153.02930	7	283.82358	7	414.61796	7	676.20641	7	676.79497	7	807.00669	7	817.38352
8	23.54297	8	154.33725	8	285.13152	8	415.92550	8	546.72020	8	677.51436	8	808.30863	8	819.08719
9	24.85091	9	155.64519	9	286.43947	9	417.23374	9	548.02802	9	678.82230	9	809.61658	9	820.60146
20	26.15886	120	156.95313	220	287.74741	320	418.54159	420	549.33596	520	680.18024	620	810.24452	720	941.71880
21	27.46860	1	158.26108	2	290.36330	1	419.89663	1	550.43911	2	681.43818	2	812.22426	1	942.33468
22	28.77474	2	159.56902	2	291.17577	2	421.15715	2	551.51518	2	682.74613	2	813.54040	2	943.54040
23	30.08258	3	160.87656	3	292.97124	3	422.46552	3	553.64552	3	684.03407	3	814.84835	3	945.64262
24	31.39063	4	162.18490	4	292.97346	4	423.73436	4	554.56774	4	685.32021	4	816.15629	4	946.95057
25	32.69857	5	163.49285	5	294.28712	5	425.08140	5	555.87568	5	686.65996	5	817.46423	5	948.25851
26	34.00651	6	164.80079	6	295.59307	6	426.39934	6	567.88662	6	687.97718	6	818.77218	6	949.56445
27	35.31445	7	166.10873	7	296.90801	7	427.69729	7	558.91516	7	689.25854	7	820.08012	7	950.74740
28	36.62240	8	167.41667	8	298.12095	8	429.00523	8	559.95151	8	690.53378	8	821.38806	8	952.96652
29	37.93034	9	168.72462	9	299.51889	9	430.31317	9	561.10745	9	691.90173	9	822.69600	9	953.49020
30	39.23828	130	170.03256	230	300.82684	330	431.62111	430	562.41539	530	693.20967	630	824.00395	730	954.79822
31	40.54623	1	171.34050	1	302.13478	2	432.92906	1	563.72333	1	694.51761	1	825.31189	1	956.10617
32	41.85417	2	172.65845	2	303.44272	3	434.54904	2	565.13028	2	695.85555	2	826.51983	2	957.00444
33	43.16211	3	173.95639	3	304.75007	3	435.54904	3	566.33922	3	697.13530	3	827.92777	3	958.72205
34	44.47009	4	175.26433	4	336.82589	4	466.88459	4	567.44144	4	698.44144	4	829.23572	4	960.02999
35	45.77800	5	176.57227	5	307.03655	5	438.16083	5	568.95511	5	699.74938	5	830.54366	5	961.33794
36	47.08694	6	177.88022	6	308.67449	6	439.46877	6	570.26305	6	701.05733	6	831.85160	6	962.64588
37	48.39588	7	179.18816	7	309.98244	7	440.77561	7	571.57099	7	702.35527	7	833.46749	7	963.26150
38	49.70883	8	180.49610	8	311.39038	8	442.08466	8	572.87893	8	703.67321	8	834.46749	8	964.26150
39	51.09797	9	181.80405	9	312.59832	9	443.39260	9	574.88888	9	704.98115	9	835.77543	9	966.56971
40	52.31771	140	183.11199	240	313.90627	340	444.70054	440	575.49842	540	706.28910	640	837.08337	740	967.87765
41	53.62655	1	184.41993	1	315.21421	1	446.00839	1	576.80276	1	707.59704	1	838.9132	1	969.18559
42	54.93560	2	185.72767	2	316.52215	2	447.31643	2	578.11071	2	708.90498	2	839.59296	2	970.49354
43	56.24544	3	187.03582	3	317.83009	3	448.63257	3	579.11655	3	709.21223	3	841.00720	3	971.80148
44	57.54948	4	188.34794	4	319.13804	4	449.93211	4	580.72859	4	710.52087	4	842.31515	4	973.10442
45	58.85742	5	189.63170	5	320.44598	5	451.24026	5	582.03453	5	712.82881	5	843.62309	5	974.41737
46	60.16537	6	190.95647	6	321.75322	6	452.54520	6	583.34248	6	714.13675	6	844.93103	6	975.72331
47	61.47531	7	192.26759	7	322.06126	7	453.85164	7	584.65042	7	715.44470	7	846.23382	7	977.03325
48	62.78125	8	193.57553	8	324.36981	8	455.16458	8	585.95386	8	716.75264	8	847.54692	8	978.34110
49	64.08920	9	194.88347	9	456.47203	9	587.72633	9	587.72633	9	718.60638	9	848.855486	9	979.64914

50	65.39714	150	196.19142	250	326.98569	350	457.77997	450	588.57425	550	719.36852	650	850.16280	750	980.95708	850	1.111.75136	950	1.242.34563
51	66.70508	1	197.49936	1	328.29364	1	459.08791	1	589.88219	1	720.67647	1	851.47074	1	932.26502	1	1.113.05930	1	1.243.85338
2	68.01302	2	198.80730	2	329.60158	2	460.39826	2	591.19013	2	721.98441	2	852.77869	2	933.05226	2	1.114.06524	2	1.245.16152
3	69.32097	3	200.15224	3	330.90952	3	461.70320	3	592.80608	3	733.95235	3	854.08663	3	934.88995	3	1.115.07518	3	1.246.46949
4	70.63891	4	201.42319	4	332.21746	4	463.01174	4	593.80602	4	724.00030	4	855.39457	4	936.18895	4	1.116.06813	4	1.247.77740
5	71.93685	5	202.73113	5	333.52541	5	464.3126763	5	595.11396	5	725.102824	5	856.01046	5	937.49679	5	1.118.07511	5	1.249.08535
6	73.24480	6	204.03807	6	334.83335	6	465.62190	6	596.42100	6	727.21618	6	858.01046	6	938.80474	6	1.119.59901	6	1.250.39329
7	74.55274	7	205.34702	7	336.14129	7	466.93557	7	597.72925	7	728.52412	7	859.31840	7	939.11268	7	1.120.90569	7	1.251.70123
8	75.86068	8	206.65996	8	337.14294	8	468.24951	8	599.63779	8	729.83207	8	860.62634	8	941.42062	8	1.122.12190	8	1.253.00918
9	77.16862	9	207.16290	9	338.75718	9	469.55146	9	600.34573	9	731.44001	9	861.93429	9	942.78386	9	1.123.32284	9	1.254.31712
60	78.47657	160	209.27084	260	340.06512	360	470.85940	460	601.63368	560	732.44795	660	863.24223	760	994.03651	860	1.124.83078	960	1.255.65206
1	79.7451	2	211.88673	1	341.37306	1	472.16734	1	644.26916	1	733.75590	1	864.55017	1	995.34459	1	1.126.38787	1	1.256.93030
2	81.09245	2	211.88673	2	342.68101	2	473.47238	2	644.26916	2	735.06384	2	865.88112	2	996.06334	2	1.127.44647	2	1.258.24047
3	82.40309	3	213.19467	3	343.98895	3	474.78323	3	605.57570	3	736.37178	3	867.16606	3	997.96034	3	1.128.55661	3	1.259.48889
4	83.70834	4	214.50261	4	345.26689	4	476.09117	4	606.88545	4	737.6797	4	868.47400	4	998.26828	4	1.130.06556	4	1.260.26883
5	85.01628	5	215.81056	5	346.60483	5	477.39911	5	608.19339	5	738.38767	5	869.81194	5	999.07050	5	1.131.37050	5	1.262.16477
6	86.32422	6	217.11850	6	347.91278	6	478.70705	6	609.50133	6	740.29651	6	870.09899	6	900.87844	6	1.132.37844	6	1.263.47272
7	87.63217	7	218.42644	7	349.21202	7	479.01500	7	610.80927	7	741.60355	7	872.39783	7	903.88416	7	1.133.88638	7	1.264.78066
8	88.94011	8	219.73439	8	350.52866	8	481.32294	8	612.11722	8	742.91149	8	873.70577	8	904.50005	8	1.135.76633	8	1.266.08860
9	89.24805	9	221.04233	9	351.88661	9	482.63088	9	613.42516	9	744.21944	9	875.01371	9	905.80799	9	1.136.60227	9	1.267.39655
70	91.55599	170	223.35027	270	353.14355	370	483.93883	470	614.73310	570	745.52738	670	876.32166	770	994.10121	870	1.127.70449	970	1.268.70449
1	92.86394	1	223.65821	1	354.14255	1	485.42477	1	616.04105	1	746.33329	1	878.04238	1	995.11593	1	1.128.18185	1	1.270.01243
2	94.17118	2	224.96616	2	355.76043	2	486.55476	2	617.38595	2	748.14327	2	880.73754	2	996.73162	2	1.129.32037	2	1.272.62832
3	95.47982	3	226.27410	3	357.10204	3	487.86565	3	618.66903	3	749.45121	3	880.25459	3	997.83044	3	1.141.83044	3	1.273.93266
4	96.78777	4	227.58204	4	358.37652	4	489.17060	4	619.96487	4	750.75915	4	881.55343	4	998.01237	4	1.143.41498	4	1.273.44240
5	98.09571	5	228.88999	5	359.68426	5	490.47654	5	621.27282	5	752.06709	5	882.86137	5	999.65565	5	1.144.44993	5	1.275.52215
6	99.40365	6	230.19793	6	360.99221	6	491.78448	6	622.5076	6	753.37504	6	884.16931	6	901.96339	6	1.145.27153	6	1.277.86009
7	100.71519	7	231.50587	7	362.30105	7	493.09443	7	625.88270	7	754.68298	7	885.47726	7	902.71513	7	1.148.37375	7	1.279.60039
8	102.01954	8	232.81381	8	363.60809	8	494.40237	8	625.19665	8	755.99092	8	886.78520	8	904.01759	8	1.149.38747	8	1.280.47597
9	103.32748	9	234.12176	9	364.91603	9	495.71031	9	626.50459	9	757.29886	9	888.09314	9	905.88742	9	1.149.68170	9	1.281.78932
80	104.63542	180	255.42970	280	366.22398	380	497.01225	480	627.81253	580	758.60681	680	889.40108	780	1.020.19556	880	1.150.88664	980	1.281.78932
1	105.74336	1	236.37664	1	367.51192	1	499.12047	1	628.91414	1	761.22269	1	890.91479	1	995.15278	1	1.152.38758	1	1.283.69186
2	107.25131	2	238.04558	2	368.83906	2	500.63144	2	630.42832	2	761.32491	2	892.01697	2	996.02135	2	1.153.60552	2	1.284.39890
3	108.55925	3	239.35553	3	370.14700	3	501.94028	3	632.63636	3	762.53064	3	893.32491	3	997.13437	3	1.154.22814	3	1.285.70774
4	109.86719	4	240.66147	4	371.45745	4	502.25092	4	633.04430	4	763.83856	4	894.63286	4	998.42713	4	1.156.01569	4	1.287.10569
5	111.15154	5	241.66441	5	372.76369	5	503.55797	5	634.35224	5	765.14652	5	895.94080	5	999.72358	5	1.157.23235	5	1.288.32363
6	112.43308	6	244.27736	6	374.07163	6	504.86391	6	635.60019	6	766.15446	6	897.24874	6	901.02832	6	1.158.83730	6	1.289.63157
7	113.79102	7	244.76830	7	375.73958	7	506.76613	7	636.67613	7	667.76241	7	898.53668	7	902.14524	7	1.160.14524	7	1.290.33952
8	115.0896	8	245.89324	8	376.68732	8	507.48185	8	638.27607	8	769.07039	8	899.86463	8	903.65890	8	1.161.15318	8	1.292.24746
9	116.40691	9	247.20118	9	377.98546	9	508.7874	9	639.58492	9	770.37629	9	901.17257	9	1.031.96685	9	1.162.76112	9	1.293.55540
90	117.74185	190	248.50913	290	379.30340	390	510.90768	490	640.80196	590	771.68264	690	902.48051	790	1.033.24749	890	1.164.06907	990	1.294.86334
1	119.02279	1	249.81707	1	380.61135	1	511.40562	1	642.19990	1	772.99418	1	903.78846	1	1.034.58273	1	1.165.37701	1	1.296.17129
2	120.30704	2	251.12501	2	381.91929	2	512.71574	2	643.50704	2	774.30212	2	905.09640	2	1.035.89068	2	1.166.38395	2	1.297.47923
3	121.63868	3	252.33295	3	333.22737	3	514.02151	3	644.81579	3	775.61006	3	906.40434	3	1.037.19862	3	1.167.99320	3	1.298.78717
4	122.96662	4	253.74090	4	334.53245	4	515.32517	4	646.12373	4	776.91801	4	907.71228	4	1.038.50656	4	1.169.30084	4	1.299.09512
5	124.24546	5	255.44984	5	335.84312	5	516.63739	5	647.43167	5	778.22395	5	909.70223	5	1.039.81450	5	1.170.09878	5	1.301.40306
6	125.52521	6	256.53578	6	337.15106	6	517.94334	6	648.73529	6	779.53359	6	910.32817	6	1.041.12245	6	1.171.16172	6	1.302.30241
7	126.8705	7	257.66473	7	339.48900	7	519.25228	7	650.04756	7	780.84107	7	911.63611	7	1.042.45039	7	1.173.22467	7	1.304.01894
8	128.18399	8	258.97267	8	339.76695	8	520.56122	8	651.35500	8	782.14798	8	912.94405	8	1.043.57833	8	1.174.33261	8	1.305.32689
9	129.46533	9	260.28061	9	391.07499	9	521.86317	9	652.66344	9	783.45772	9	914.23200	9	1.045.04627	9	1.175.84055	9	1.306.32689

CAPACITY—LIQUID QUARTS TO LITERS

[Reduction factor: 1 liquid quart = 0.94633213 liter]

Liquid quarts	Liquid Liters																
0 1	0.94633	200	189.266	300	283.900	400	378.533	500	473.166	600	567.799	700	662.432	800	757.066	900	851.699
1 2	1.8927	195.580	190.213	191.159	284.846	197.792	285.792	191.105	287.685	193.052	287.685	193.052	287.685	193.052	287.685	193.052	287.685
2 3	2.8590	97.472	97.472	97.472	191.159	192.112	192.112	192.112	192.112	192.112	192.112	192.112	192.112	192.112	192.112	192.112	192.112
3 4	3.7853	98.419	98.419	98.419	193.052	193.052	193.052	193.052	193.052	193.052	193.052	193.052	193.052	193.052	193.052	193.052	193.052
4 5	4.7317	99.365	99.365	99.365	193.998	193.998	193.998	193.998	193.998	193.998	193.998	193.998	193.998	193.998	193.998	193.998	193.998
5 6	5.6780	100.311	100.311	100.311	194.944	194.944	194.944	194.944	194.944	194.944	194.944	194.944	194.944	194.944	194.944	194.944	194.944
6 7	6.6243	101.258	101.258	101.258	195.891	195.891	195.891	195.891	195.891	195.891	195.891	195.891	195.891	195.891	195.891	195.891	195.891
7 8	7.5707	102.204	102.204	102.204	196.837	196.837	196.837	196.837	196.837	196.837	196.837	196.837	196.837	196.837	196.837	196.837	196.837
8 9	8.5170	103.150	103.150	103.150	197.783	197.783	197.783	197.783	197.783	197.783	197.783	197.783	197.783	197.783	197.783	197.783	197.783
9 10	9.4633	104.097	104.097	104.097	198.730	198.730	198.730	198.730	198.730	198.730	198.730	198.730	198.730	198.730	198.730	198.730	198.730
10 11	10.4097	105.043	105.043	105.043	199.676	199.676	199.676	199.676	199.676	199.676	199.676	199.676	199.676	199.676	199.676	199.676	199.676
11 12	11.3600	105.989	105.989	105.989	200.622	200.622	200.622	200.622	200.622	200.622	200.622	200.622	200.622	200.622	200.622	200.622	200.622
12 13	12.3023	106.936	106.936	106.936	201.569	201.569	201.569	201.569	201.569	201.569	201.569	201.569	201.569	201.569	201.569	201.569	201.569
13 14	13.2486	107.882	107.882	107.882	202.515	202.515	202.515	202.515	202.515	202.515	202.515	202.515	202.515	202.515	202.515	202.515	202.515
14 15	14.1950	108.828	108.828	108.828	203.461	203.461	203.461	203.461	203.461	203.461	203.461	203.461	203.461	203.461	203.461	203.461	203.461
15 16	15.1413	109.775	109.775	109.775	204.408	204.408	204.408	204.408	204.408	204.408	204.408	204.408	204.408	204.408	204.408	204.408	204.408
16 17	16.0876	110.721	110.721	110.721	205.354	205.354	205.354	205.354	205.354	205.354	205.354	205.354	205.354	205.354	205.354	205.354	205.354
17 18	17.0340	111.667	111.667	111.667	206.300	206.300	206.300	206.300	206.300	206.300	206.300	206.300	206.300	206.300	206.300	206.300	206.300
18 19	17.903	112.614	112.614	112.614	207.247	207.247	207.247	207.247	207.247	207.247	207.247	207.247	207.247	207.247	207.247	207.247	207.247
19 20	18.9266	113.560	113.560	113.560	208.193	208.193	208.193	208.193	208.193	208.193	208.193	208.193	208.193	208.193	208.193	208.193	208.193
20 21	19.8730	114.506	114.506	114.506	209.139	209.139	209.139	209.139	209.139	209.139	209.139	209.139	209.139	209.139	209.139	209.139	209.139
21 22	20.8193	115.453	115.453	115.453	210.086	210.086	210.086	210.086	210.086	210.086	210.086	210.086	210.086	210.086	210.086	210.086	210.086
22 23	21.7556	116.399	116.399	116.399	211.032	211.032	211.032	211.032	211.032	211.032	211.032	211.032	211.032	211.032	211.032	211.032	211.032
23 24	22.7120	117.345	117.345	117.345	211.978	211.978	211.978	211.978	211.978	211.978	211.978	211.978	211.978	211.978	211.978	211.978	211.978
24 25	23.6833	118.292	118.292	118.292	212.925	212.925	212.925	212.925	212.925	212.925	212.925	212.925	212.925	212.925	212.925	212.925	212.925
25 26	24.6646	119.238	119.238	119.238	213.871	213.871	213.871	213.871	213.871	213.871	213.871	213.871	213.871	213.871	213.871	213.871	213.871
26 27	25.5110	120.184	120.184	120.184	214.817	214.817	214.817	214.817	214.817	214.817	214.817	214.817	214.817	214.817	214.817	214.817	214.817
27 28	26.4973	121.131	121.131	121.131	215.764	215.764	215.764	215.764	215.764	215.764	215.764	215.764	215.764	215.764	215.764	215.764	215.764
28 29	27.4436	122.077	122.077	122.077	216.710	216.710	216.710	216.710	216.710	216.710	216.710	216.710	216.710	216.710	216.710	216.710	216.710
29 30	28.3900	123.023	123.023	123.023	217.656	217.656	217.656	217.656	217.656	217.656	217.656	217.656	217.656	217.656	217.656	217.656	217.656
30 31	29.3363	123.970	123.970	123.970	218.603	218.603	218.603	218.603	218.603	218.603	218.603	218.603	218.603	218.603	218.603	218.603	218.603
31 32	30.2826	124.916	124.916	124.916	219.539	219.539	219.539	219.539	219.539	219.539	219.539	219.539	219.539	219.539	219.539	219.539	219.539
32 33	31.2290	125.862	125.862	125.862	220.495	220.495	220.495	220.495	220.495	220.495	220.495	220.495	220.495	220.495	220.495	220.495	220.495
33 34	31.1753	126.809	126.809	126.809	221.442	221.442	221.442	221.442	221.442	221.442	221.442	221.442	221.442	221.442	221.442	221.442	221.442
34 35	32.1216	127.755	127.755	127.755	222.388	222.388	222.388	222.388	222.388	222.388	222.388	222.388	222.388	222.388	222.388	222.388	222.388
35 36	33.0680	128.701	128.701	128.701	223.334	223.334	223.334	223.334	223.334	223.334	223.334	223.334	223.334	223.334	223.334	223.334	223.334
36 37	34.0143	129.648	129.648	129.648	224.281	224.281	224.281	224.281	224.281	224.281	224.281	224.281	224.281	224.281	224.281	224.281	224.281
37 38	35.9606	130.594	130.594	130.594	225.227	225.227	225.227	225.227	225.227	225.227	225.227	225.227	225.227	225.227	225.227	225.227	225.227
38 39	36.9070	131.540	131.540	131.540	226.173	226.173	226.173	226.173	226.173	226.173	226.173	226.173	226.173	226.173	226.173	226.173	226.173
39 40	37.8533	132.486	132.486	132.486	227.120	227.120	227.120	227.120	227.120	227.120	227.120	227.120	227.120	227.120	227.120	227.120	227.120
40 41	38.7996	133.433	133.433	133.433	228.066	228.066	228.066	228.066	228.066	228.066	228.066	228.066	228.066	228.066	228.066	228.066	228.066
41 42	39.7549	134.379	134.379	134.379	229.012	229.012	229.012	229.012	229.012	229.012	229.012	229.012	229.012	229.012	229.012	229.012	229.012
42 43	40.6923	135.325	135.325	135.325	229.959	229.959	229.959	229.959	229.959	229.959	229.959	229.959	229.959	229.959	229.959	229.959	229.959
43 44	41.6386	136.272	136.272	136.272	230.905	230.905	230.905	230.905	230.905	230.905	230.905	230.905	230.905	230.905	230.905	230.905	230.905
44 45	42.5849	137.218	137.218	137.218	231.851	231.851	231.851	231.851	231.851	231.851	231.851	231.851	231.851	231.851	231.851	231.851	231.851
45 46	43.5313	138.164	138.164	138.164	232.798	232.798	232.798	232.798	232.798	232.798	232.798	232.798	232.798	232.798	232.798	232.798	232.798
46 47	44.4776	139.111	139.111	139.111	233.744	233.744	233.744	233.744	233.744	233.744	233.744	233.744	233.744	233.744	233.744	233.744	233.744
47 48	45.4239	140.057	140.057	140.057	234.690	234.690	234.690	234.690	234.690	234.690	234.690	234.690	234.690	234.690	234.690	234.690	234.690
48 49	46.3703	141.003	141.003	141.003	235.637	235.637	235.637	235.637	235.637	235.637	235.637	235.637	235.637	235.637	235.637	235.637	235.637

50	47,3166	150	141 950	250	236,583	350	331,216	450	425,849	550	520,483	650	615,116	750	709,749	850	804,382
1	48,229	1	142,896	1	237,529	2	238,476	3	239,422	4	240,368	5	235,948	6	241,315	7	247,937
2	49,2093	2	143,842	3	144,789	3	144,735	4	146,681	5	146,635	5	140,581	6	142,527	7	150,625
3	50,1556	3	144,789	3	144,735	4	145,735	5	146,681	6	147,628	7	148,574	8	149,520	9	150,467
4	51,1019	4	145,735	5	146,681	5	146,635	6	147,628	7	148,574	8	149,520	9	150,467		
5	52,0883	5	146,681	5	146,635	6	147,628	7	148,574	8	149,520	9	150,467				
6	52,9946	6	147,628	7	148,574	8	149,520	9	150,467								
7	53,9009	7	148,574	8	149,520	9	150,467										
8	54,8873	8	149,520	9	150,467												
9	55,8336	9	150,467														
60	57,7799	160	151,413	260	246,046	360	340,680	460	426,513	560	529,946	660	624,574	760	719,212	860	813,846
1	57,7263	1	152,493	1	246,993	2	341,626	1	436,259	1	530,892	1	625,526	1	720,159	1	814,792
2	58,6726	2	153,306	2	247,939	3	437,205	2	531,819	2	626,472	2	721,105	2	815,738	2	910,372
3	59,6189	3	154,152	3	248,885	3	343,519	3	438,152	3	532,785	3	627,418	3	722,051	3	911,318
4	60,5653	4	155,198	4	249,832	5	344,465	4	439,098	5	533,711	4	628,365	4	722,998	4	912,264
5	61,5116	5	156,145	5	250,778	6	345,411	5	440,044	5	534,678	5	629,311	5	723,944	5	913,211
6	62,4779	6	157,091	6	251,734	7	346,358	6	440,091	6	535,624	6	630,257	6	724,890	6	919,524
7	63,4443	7	158,037	7	252,671	8	348,280	7	441,304	7	536,570	7	631,204	7	725,837	7	915,103
8	64,3006	8	158,984	8	253,617	9	349,197	8	442,883	8	537,517	8	632,150	8	726,783	8	916,080
9	65,2569	9	159,930	9	254,563	9	349,197	9	443,830	9	538,463	9	633,096	9	727,729	9	916,996
70	66,2432	170	160,876	270	255,510	370	350,143	470	444,776	570	539,409	670	634,043	770	728,676	870	823,309
1	67,1996	1	161,823	1	256,456	2	351,089	1	445,722	1	540,356	1	634,989	1	729,622	1	917,942
2	68,1559	2	162,769	2	257,402	3	352,056	2	446,669	2	541,302	2	635,935	2	730,568	2	918,888
3	69,0822	3	163,715	4	258,349	5	352,982	3	447,615	3	542,248	3	636,882	3	731,515	3	919,835
4	70,0286	4	164,662	4	259,295	5	353,928	4	448,561	4	543,195	4	637,828	4	732,461	4	921,727
5	70,9749	5	165,608	5	260,241	6	354,875	5	449,508	5	544,141	5	638,774	5	734,407	5	922,674
6	71,9212	6	166,554	6	261,188	7	355,821	6	450,454	6	545,087	6	639,721	6	734,354	6	923,620
7	72,8676	7	167,501	7	262,134	8	356,767	7	451,400	7	546,034	7	641,667	7	735,300	7	924,566
8	73,8139	8	168,457	8	263,080	9	357,714	8	452,347	8	546,980	8	641,246	8	736,246	8	925,513
9	74,7602	9	169,393	9	264,027	9	358,660	9	453,293	9	547,926	9	642,560	9	737,193	9	926,459
80	75,7066	180	170,340	280	264,973	380	359,606	480	454,239	580	548,873	680	643,506	780	738,139	880	832,772
1	76,6329	1	171,286	2	266,866	2	361,499	2	456,132	2	550,765	1	645,399	2	740,032	2	834,665
2	77,5992	2	172,232	2	267,812	3	362,445	3	457,078	3	551,712	3	646,345	3	741,924	3	930,244
3	78,5456	3	173,179	3	268,758	4	363,392	4	458,025	4	552,658	4	647,291	4	741,924	4	931,191
4	79,4919	4	174,125	4	269,705	5	364,338	5	458,971	5	553,604	5	648,238	5	742,871	5	932,137
5	80,4382	5	175,071	5	270,651	6	365,284	6	459,917	6	554,551	6	649,184	6	743,817	6	933,083
6	81,3846	6	176,018	7	271,597	7	366,231	7	460,864	7	555,497	7	650,140	7	744,763	7	934,050
7	82,3409	7	176,964	8	272,544	8	367,177	8	461,810	8	556,443	8	651,023	9	745,710	8	934,976
8	83,2772	8	177,910	9	273,490	9	368,123	9	462,756	9	557,390	9	652,023	9	746,656	9	935,922
9	84,2236	9	178,857														
90	85,1699	190	179,803	290	274,436	390	369,070	490	463,703	590	558,336	690	652,969	790	747,602	890	842,236
1	86,1162	1	180,749	1	275,383	1	370,016	1	464,649	1	559,282	1	653,916	1	748,549	1	937,815
2	87,0626	2	181,696	2	276,329	2	370,962	2	465,595	2	560,229	2	654,862	2	749,495	2	938,128
3	88,0089	3	182,642	3	277,275	3	371,909	3	466,542	3	561,175	3	655,808	3	750,441	3	939,768
4	88,9352	4	183,588	4	278,222	4	372,855	4	467,488	4	562,121	4	656,751	4	751,388	4	940,654
5	89,9016	5	184,535	5	279,168	5	373,801	5	468,434	5	563,068	5	657,701	5	752,334	5	941,600
6	90,8479	6	185,481	6	280,114	6	374,748	6	469,381	6	564,014	6	658,647	6	753,280	6	942,547
7	91,7942	7	186,427	7	281,061	7	375,694	7	470,327	7	564,960	7	659,593	7	754,227	7	943,493
8	92,7405	8	187,374	8	282,007	8	376,640	8	471,273	8	565,907	8	660,540	8	755,173	8	944,439
9	93,6869	9	188,320	9	282,953	9	377,587	9	472,220	9	566,853	9	661,486	9	756,119	9	945,386

CAPACITY—LITERS TO LIQUID QUARTS

[Reduction factor: 1 liter = 1.0567115 quarts]

Liters	Liquid quarts	Liters	Liquid quarts	Liters	Liquid quarts	Liters	Liquid quarts	Liters	Liquid quarts	Liters	Liquid quarts	Liters	Liquid quarts	Liters	Liquid quarts		
0	100	105.671	200	211.342	300	317.013	400	422.685	500	528.356	600	634.027	700	739.695	800	845.369	
1	1.0567	106.728	212.399	318.070	401	423.741	491	529.412	591	635.084	691	846.426	900	951.040	900	952.097	
2	2.1134	107.785	213.556	319.127	402	424.798	492	530.469	592	636.140	692	847.482	901	953.154	901	953.267	
3	3.1701	108.843	214.512	320.184	403	425.855	493	531.526	593	637.197	693	848.539	902	954.324	902	955.381	
4	4.2268	109.900	215.569	321.240	404	426.911	494	532.583	594	638.244	694	849.595	903	956.381	903	957.381	
5	5.2835	110.955	216.626	322.297	405	427.968	495	533.639	595	639.310	695	850.653	904	958.266	904	959.437	
6	6.3403	112.022	217.683	323.354	406	428.025	496	534.696	596	640.367	696	851.709	905	959.494	905	960.551	
7	7.3970	113.068	218.739	324.410	407	429.082	497	535.753	597	641.424	697	852.766	906	961.004	906	962.120	
8	8.4537	114.125	219.796	325.467	408	431.138	498	536.809	598	642.481	698	853.823	907	962.948	907	963.986	
9	9.5104	115.182	220.853	326.524	409	432.195	499	537.866	599	643.537	699	854.880	908	964.044	908	965.086	
10	10.5671	110	116.238	210	221.909	310	327.381	410	433.252	510	538.923	610	644.584	710	750.265	810	855.936
1	11.6238	117.295	218.567	328.637	2	329.694	1	435.365	2	541.036	1	645.651	1	751.322	1	856.993	
2	12.6805	118.352	224.023	329.850	3	329.751	2	436.422	3	542.093	2	646.767	2	752.379	2	858.050	
3	13.7372	119.408	226.465	330.807	4	331.807	4	437.479	4	543.150	4	648.821	3	753.435	3	859.106	
4	14.7940	120.465	227.193	332.864	5	332.864	5	438.535	5	544.206	5	649.878	4	754.492	4	860.163	
5	15.8507	121.522	228.250	333.921	6	333.921	6	439.592	6	545.263	6	650.934	5	755.549	5	861.220	
6	16.9074	122.579	229.306	334.978	7	334.978	7	440.649	7	546.320	7	651.981	6	756.605	6	862.277	
7	17.9641	123.635	230.363	336.034	8	336.034	8	441.705	8	547.378	8	653.034	7	757.662	7	863.333	
8	19.0208	124.692	231.420	337.091	9	337.091	9	442.762	9	548.433	9	654.014	8	758.719	8	864.397	
9	20.0775	125.749	231.420	337.091	9	337.091	9	442.762	9	548.433	9	654.014	9	759.776	9	865.447	
20	21.1342	120	126.805	220	232.477	320	338.148	420	443.819	520	549.490	620	655.161	720	760.832	820	866.503
1	22.1909	127.862	234.919	339.204	2	340.261	1	444.876	2	550.547	1	651.603	2	761.946	1	867.560	
2	23.2477	128.919	234.590	340.261	3	341.347	3	445.932	3	552.603	2	657.225	2	762.946	2	868.617	
3	24.3044	129.976	235.647	341.318	4	346.989	3	446.989	3	552.660	3	658.311	3	764.002	3	869.674	
4	25.3611	131.032	236.703	342.375	4	347.102	4	448.046	4	553.217	4	659.358	4	765.059	4	870.730	
5	26.4178	132.089	237.760	343.431	5	348.150	5	449.102	5	554.774	5	660.445	5	766.116	5	871.870	
6	27.4745	133.146	238.817	344.488	6	349.216	6	450.159	6	555.830	6	661.501	6	767.173	6	872.844	
7	28.5312	134.202	239.874	345.545	7	350.273	7	451.216	7	556.887	7	662.558	7	768.229	7	873.900	
8	29.5879	135.259	240.930	346.601	8	351.327	8	452.273	8	557.944	8	663.615	9	769.286	8	874.957	
9	30.6446	136.316	241.987	347.658	9	352.397	9	453.329	9	559.000	9	664.672	9	770.343	9	876.014	
30	31.7013	130	137.372	230	243.044	330	348.715	430	454.386	530	560.057	630	665.728	730	771.399	830	877.071
1	32.7581	138.429	244.107	349.772	2	345.557	1	455.443	1	561.114	1	666.785	1	772.456	1	883.798	
2	33.8148	139.486	245.157	350.828	2	350.587	2	456.499	2	567.171	2	667.882	2	773.513	2	884.815	
3	34.8715	140.543	246.214	351.884	3	351.624	3	457.556	3	563.227	3	668.888	3	774.570	3	885.912	
4	35.9282	141.599	247.270	352.942	4	352.682	4	458.613	4	564.284	4	669.925	4	775.626	4	886.969	
5	36.9849	142.656	248.327	353.998	5	353.745	5	459.670	5	565.341	5	671.012	5	776.683	5	888.025	
6	38.0416	143.713	249.384	355.055	6	355.705	6	460.726	6	566.397	6	672.059	6	777.740	6	889.082	
7	39.0983	144.769	250.441	356.112	7	356.765	7	461.783	7	567.454	7	673.102	7	778.796	7	890.119	
8	40.1550	145.826	251.497	357.168	8	357.825	8	462.840	8	568.511	8	674.162	8	779.853	8	891.195	
9	41.2117	146.883	252.554	358.225	9	358.896	9	463.896	9	569.567	9	675.239	9	780.910	9	892.252	
40	42.2685	140	147.940	240	253.611	340	359.282	440	464.953	540	570.524	640	676.295	740	781.967	840	887.638
1	43.3252	148.996	254.667	360.339	1	360.339	1	466.010	1	571.681	1	677.332	1	783.023	1	888.694	
2	44.3819	150.053	255.724	361.395	2	361.395	2	467.066	2	572.738	2	678.499	2	784.080	2	889.756	
3	45.4386	151.110	256.781	362.452	3	362.452	3	468.123	3	573.794	3	679.495	3	785.137	3	890.808	
4	46.4953	152.166	257.838	363.509	4	363.509	4	469.180	4	574.851	4	680.522	4	786.193	4	891.865	
5	47.5520	153.223	258.894	364.565	5	364.565	5	470.237	5	575.908	5	681.579	5	787.250	5	892.921	
6	48.6087	154.280	259.951	365.622	6	365.622	6	471.293	6	576.964	6	682.636	6	788.307	6	893.978	
7	49.6654	155.337	261.008	366.679	7	366.679	7	472.350	7	578.021	7	683.627	7	789.363	7	895.035	
8	50.7222	156.393	262.064	367.736	8	367.736	8	473.407	8	579.078	8	684.749	8	790.420	8	896.044	
9	51.7789	157.450	263.121	368.792	9	368.792	9	474.463	9	580.133	9	685.806	9	791.477	9	897.148	

50	52,8356	158,507	369,849	450	475,520	550	581,191	650	686,862	750	792,534	850	898,205	950	1,003,876	
1	53,8223	159,563	370,906	450	476,577	550	582,248	650	687,919	750	793,590	850	899,261	950	1,004,933	
2	53,890	2,60,620	2,291	450	477,634	550	583,305	650	688,376	750	794,647	850	900,318	950	1,005,989	
3	56,0057	3,61,677	3,267,348	450	478,690	550	584,361	650	690,633	750	795,704	850	901,375	950	1,007,046	
4	57,0024	4,62,734	4,268,405	450	479,747	550	585,418	650	691,889	750	797,760	850	902,332	950	1,008,103	
5	58,1191	5,63,720	5,269,461	450	480,804	550	586,475	650	692,146	750	797,817	850	903,388	950	1,009,159	
6	59,1758	6,64,847	6,270,518	450	481,860	550	587,532	650	693,203	750	798,874	850	904,345	950	1,010,216	
7	60,2236	7,65,904	7,271,575	450	482,917	550	588,588	650	694,259	750	799,931	850	905,302	950	1,011,273	
8	61,2893	8,66,960	8,272,632	450	483,974	550	589,645	650	695,316	750	800,987	850	906,358	950	1,012,330	
9	62,3460	9,68,017	9,273,688	450	485,031	550	590,702	650	696,373	750	802,044	850	907,715	950	1,013,386	
60	63,4027	160,169,074	260	380,416	460	486,087	560	591,758	660	697,330	760	803,101	860	908,772	960	1,014,443
1	64,4594	1,170,131	1,275,802	460	487,144	560	592,815	660	698,486	760	804,157	860	909,829	960	1,015,500	
2	65,5161	2,171,187	2,276,858	460	488,201	560	593,872	660	699,543	760	805,214	860	910,885	960	1,016,556	
3	66,5728	3,172,244	3,277,915	460	489,257	560	594,929	660	700,600	760	806,271	860	911,942	960	1,017,613	
4	67,6295	4,173,301	4,278,972	460	490,314	560	595,985	660	701,656	760	807,328	860	912,999	960	1,018,670	
5	68,6862	5,175,357	5,280,029	460	491,371	560	597,042	660	702,713	760	808,384	860	914,055	960	1,019,727	
6	69,7330	6,175,414	6,281,085	460	492,428	560	598,099	660	703,770	760	809,441	860	915,112	960	1,020,783	
7	70,7997	7,176,471	7,282,142	460	493,484	560	599,155	660	704,827	760	810,498	860	916,169	960	1,021,840	
8	71,8564	8,177,528	8,283,199	460	494,541	560	600,212	660	705,883	760	811,554	860	917,226	960	1,022,897	
9	72,9131	9,178,584	9,284,255	460	495,598	560	601,269	660	706,940	760	812,611	860	918,282	960	1,023,953	
70	73,9698	170,179,641	270	380,312	370	390,983	470	496,654	570	602,326	670	707,997	770	813,668	870	919,339
1	76,0355	1,180,698	1,286,369	370	392,040	470	497,711	570	603,382	670	709,053	770	814,725	870	920,396	
2	76,0832	2,181,754	2,287,426	370	393,072	470	498,768	570	604,439	670	710,110	770	815,781	870	921,452	
3	77,1399	3,182,811	3,288,482	370	394,153	470	499,825	570	605,496	670	711,167	770	816,838	870	922,309	
4	78,1667	4,183,868	4,289,539	370	400,210	470	500,881	570	606,552	670	712,224	770	817,895	870	923,366	
5	79,2534	5,184,925	5,290,596	370	401,267	470	501,938	570	607,609	670	713,280	770	818,951	870	924,623	
6	80,3101	6,185,981	6,291,652	370	402,324	470	502,995	570	608,666	670	714,337	770	819,008	870	925,779	
7	81,3668	7,187,038	7,292,709	370	403,380	470	504,051	570	609,723	670	715,394	770	821,065	870	926,336	
8	82,4255	8,188,095	8,293,766	370	404,437	470	505,108	570	610,779	670	716,450	770	822,122	870	927,193	
9	83,4802	9,189,151	9,294,823	370	405,494	470	506,165	570	611,836	670	717,507	770	823,178	870	928,349	
80	84,5369	180,190,298	280	295,879	380	401,550	480	507,222	580	612,893	680	718,564	780	824,235	880	929,906
1	85,5336	1,191,265	1,297,936	280	296,607	380	402,607	480	508,278	580	613,949	680	719,627	780	830,563	
2	86,6303	2,192,321	2,299,933	280	299,049	380	403,664	480	509,335	580	615,006	680	720,677	780	832,348	
3	87,7071	3,193,378	3,300,949	280	304,721	380	404,721	480	510,392	580	616,063	680	721,734	780	833,405	
4	88,7638	4,194,435	4,301,106	280	405,777	380	405,777	480	511,448	580	617,120	680	722,847	780	834,462	
5	89,8205	5,195,492	5,301,163	280	406,834	380	406,834	480	512,505	580	618,176	680	723,847	780	835,519	
6	90,8772	6,196,548	6,302,219	280	407,891	380	407,891	480	513,562	580	619,233	680	724,904	780	836,575	
7	91,9339	7,197,602	7,303,276	280	408,947	380	408,947	480	514,619	580	620,290	680	725,961	780	837,632	
8	92,9906	8,198,662	8,304,333	280	409,004	380	409,004	480	515,675	580	621,346	680	727,018	780	838,689	
9	94,0473	9,199,718	9,305,390	280	410,061	380	410,061	480	516,732	580	622,403	680	728,074	780	839,745	
90	95,1040	190,200,775	290	306,446	390	412,117	490	517,789	590	623,460	690	729,131	790	834,802	890	940,473
1	96,1607	2,201,832	1,307,503	290	413,174	390	518,845	490	518,845	590	624,516	690	730,188	790	835,859	
2	97,2175	3,202,889	2,308,560	290	414,231	390	519,902	490	519,902	590	625,573	690	731,244	790	836,916	
3	98,2742	3,203,945	3,309,616	290	415,288	390	520,959	490	520,959	590	626,630	690	732,301	790	837,972	
4	99,3309	4,205,002	4,310,673	290	416,344	390	522,015	490	522,015	590	627,687	690	733,358	790	838,029	
5	100,3876	5,206,059	5,311,730	290	417,401	390	523,072	490	523,072	590	628,743	690	734,414	790	840,086	
6	101,4443	6,207,115	6,312,787	290	418,458	390	524,129	490	524,129	590	629,809	690	735,471	790	841,142	
7	102,5010	7,208,122	7,313,843	290	419,514	390	525,186	490	525,186	590	630,887	690	736,528	790	842,199	
8	103,5577	8,209,229	8,314,900	290	420,642	390	526,442	490	526,442	590	631,913	690	737,585	790	843,256	
9	104,6144	9,210,286	9,315,957	290	421,628	390	527,299	490	527,299	590	632,970	690	738,641	790	844,312	

CAPACITY—GALLONS TO LITERS

(Reduction factor: 1 gallon = 3.7853285 liters)

Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters
0	0	378.533	200	757.066	300	1,135.599	400	1,514.131	500	1,892.664	600	2,271.197	700	2,649.730	800	3,028.263	900	3,406.796	
1	1	378.533	200	757.066	300	1,135.599	400	1,514.131	500	1,892.664	600	2,271.197	700	2,649.730	800	3,028.263	900	3,406.796	
2	2	757.066	400	1,135.599	500	1,514.131	600	1,892.664	700	2,271.197	800	2,649.730	900	3,028.263	1,000	3,406.796	1,000	3,406.796	
3	3	1,135.599	500	1,514.131	600	1,892.664	700	2,271.197	800	2,649.730	900	3,028.263	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
4	4	1,514.131	600	1,892.664	700	2,271.197	800	2,649.730	900	3,028.263	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
5	5	1,892.664	700	2,271.197	800	2,649.730	900	3,028.263	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
6	6	2,271.197	800	2,649.730	900	3,028.263	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
7	7	2,649.730	900	3,028.263	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
8	8	3,028.263	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
9	9	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	1,000	3,406.796	
10	10	37.853	210	794.919	310	1,173.457	410	1,551.985	510	1,930.518	610	2,309.050	710	2,687.583	810	3,066.116	910	3,444.649	
11	11	41.6386	210	798.704	310	1,177.237	410	1,555.770	510	1,934.303	610	2,312.836	710	2,691.369	810	3,069.901	910	3,448.434	
12	12	45.4239	210	764.636	200	1,143.169	200	1,521.702	200	1,900.255	200	2,278.768	200	2,657.301	200	3,035.833	200	3,414.366	
13	13	49.2093	210	789.889	200	1,146.955	200	1,525.487	200	1,904.020	200	2,282.553	200	2,661.086	200	3,035.833	200	3,414.366	
14	14	52.9946	210	793.674	200	1,150.740	200	1,529.273	200	1,907.806	200	2,286.358	200	2,664.871	200	3,035.833	200	3,414.366	
15	15	56.7799	210	797.459	200	1,154.525	200	1,533.058	200	1,911.591	200	2,290.124	200	2,668.657	200	3,035.833	200	3,414.366	
16	16	60.5633	210	801.069	200	1,158.311	200	1,537.643	200	1,915.376	200	2,293.909	200	2,672.442	200	3,035.833	200	3,414.366	
17	17	64.3506	210	805.275	200	1,162.096	200	1,540.629	200	1,919.162	200	2,297.694	200	2,676.227	200	3,035.833	200	3,414.366	
18	18	68.1359	210	810.060	200	1,165.881	200	1,545.414	200	1,922.947	200	2,301.480	200	2,680.013	200	3,035.833	200	3,414.366	
19	19	71.9212	210	813.846	200	1,192.378	200	1,570.911	200	1,949.444	200	2,305.265	200	2,683.798	200	3,035.833	200	3,414.366	
20	20	75.7066	210	817.631	200	1,196.164	200	1,574.697	200	1,953.230	200	2,311.762	200	2,710.295	200	3,088.263	200	3,467.361	
21	21	80.4772	210	821.416	200	1,199.949	200	1,578.482	200	1,957.015	200	2,315.548	200	2,714.081	200	3,092.613	200	3,471.146	
22	22	84.2656	210	825.202	200	1,203.734	200	1,582.267	200	1,960.800	200	2,319.333	200	2,717.866	200	3,096.399	200	3,474.932	
23	23	88.0540	210	828.987	200	1,207.520	200	1,586.653	200	1,964.585	200	2,343.118	200	2,721.651	200	3,100.184	200	3,478.717	
24	24	91.8424	210	832.772	200	1,211.305	200	1,591.025	200	1,968.838	200	2,346.904	200	2,725.437	200	3,103.969	200	3,482.502	
25	25	95.6308	210	836.558	200	1,215.090	200	1,595.623	200	1,972.156	200	2,350.689	200	2,729.229	200	3,107.755	200	3,486.288	
26	26	99.4192	210	840.343	200	1,218.876	200	1,599.409	200	1,975.941	200	2,354.474	200	2,733.007	200	3,111.545	200	3,493.073	
27	27	103.2076	210	844.123	200	1,222.661	200	1,601.194	200	1,979.727	200	2,358.256	200	2,736.793	200	3,115.325	200	3,493.858	
28	28	107.0060	210	847.914	200	1,226.446	200	1,604.979	200	1,983.512	200	2,362.045	200	2,740.578	200	3,119.126	200	3,497.644	
29	29	108.7944	210	851.695	200	1,230.232	200	1,608.765	200	1,987.297	200	2,365.830	200	2,744.363	200	3,122.896	200	3,501.429	
30	30	112.5928	210	855.484	200	1,234.017	200	1,612.550	200	1,991.083	200	2,369.616	200	2,748.448	200	3,126.681	200	3,505.214	
31	31	116.3912	210	859.270	200	1,237.072	200	1,616.335	200	1,994.868	200	2,373.401	200	2,752.607	200	3,130.467	200	3,512.785	
32	32	120.1896	210	863.055	200	1,241.588	200	1,620.121	200	1,998.653	200	2,377.186	200	2,755.719	200	3,134.552	200	3,516.570	
33	33	123.9880	210	866.840	200	1,245.373	200	1,623.906	200	2,002.439	9	2,380.972	9	2,759.504	9	3,138.037	9	3,516.570	
34	34	127.7864	210	870.626	330	1,249.158	430	1,627.691	530	2,006.224	630	2,384.757	730	2,763.404	830	3,145.608	930	3,524.356	
35	35	131.5848	210	874.411	330	1,252.944	430	1,631.477	530	2,010.099	630	2,388.528	730	2,767.075	830	3,145.608	930	3,524.356	
36	36	135.3832	210	878.196	330	1,256.729	430	1,635.262	530	2,015.795	630	2,392.328	730	2,770.860	830	3,149.393	930	3,527.926	
37	37	139.1816	210	881.982	330	1,260.514	430	1,639.047	530	2,021.580	630	2,396.198	730	2,774.646	830	3,153.179	930	3,531.721	
38	38	142.9798	210	885.767	330	1,264.300	430	1,642.833	530	2,021.365	630	2,399.998	730	2,778.431	830	3,156.964	930	3,535.497	
39	39	146.7782	210	889.553	330	1,268.085	430	1,646.618	530	2,025.151	630	2,403.684	730	2,782.216	830	3,160.449	930	3,539.282	
40	40	150.5766	210	893.338	330	1,271.870	430	1,650.403	530	2,028.936	630	2,407.469	730	2,786.002	830	3,164.335	930	3,543.067	
41	41	154.3750	210	897.123	330	1,275.656	430	1,654.189	530	2,032.721	630	2,411.254	730	2,789.787	830	3,168.720	930	3,546.853	
42	42	158.1734	210	900.908	330	1,279.441	430	1,657.974	530	2,036.507	630	2,415.040	730	2,793.572	830	3,172.105	930	3,550.638	
43	43	161.9718	210	904.694	330	1,283.226	430	1,661.759	530	2,040.292	630	2,418.825	730	2,797.358	830	3,175.891	930	3,554.423	
44	44	165.7702	210	908.479	340	1,287.012	440	1,665.545	540	2,044.077	640	2,422.610	740	2,801.143	840	3,179.676	940	3,558.209	
45	45	169.5686	210	912.264	340	1,294.797	440	1,671.310	540	2,047.863	640	2,427.395	740	2,804.928	840	3,183.641	940	3,561.994	
46	46	173.3680	210	916.049	340	1,295.582	440	1,673.115	540	2,051.648	640	2,430.181	740	2,808.714	840	3,187.047	940	3,565.779	
47	47	177.1664	210	919.835	340	1,298.368	440	1,676.901	540	2,053.443	640	2,433.966	740	2,812.499	840	3,191.632	940	3,569.565	
48	48	180.9648	210	923.620	340	1,302.153	440	1,680.686	540	2,059.219	640	2,437.655	740	2,816.284	840	3,194.817	940	3,573.121	
49	49	184.7632	210	927.405	340	1,305.938	440	1,684.471	540	2,063.004	640	2,441.537	740	2,820.070	840	3,198.603	940	3,577.135	
50	50	188.5616	210	931.191	340	1,309.724	440	1,688.257	540	2,067.759	640	2,445.322	740	2,823.855	840	3,198.603	940	3,580.721	
51	51	192.3600	210	934.976	340	1,313.509	440	1,692.042	540	2,070.575	640	2,449.108	740	2,827.640	840	3,206.173	940	3,584.706	
52	52	196.1584	210	938.761	340	1,317.294	440	1,695.627	540	2,074.395	640	2,452.126	740	2,831.426	840	3,209.744	940	3,586.491	
53	53	199.9568	210	940.614	340	1,321.080	440	1,699.612	540	2,078.145	640	2,456.678	740	2,835.211	840	3,213.744	940	3,592.277	

50	189,2664	250	567,799	350	1,324,865	450	1,703,398	550	2,081,931	650	2,460,464	750	2,838,996	850	3,217,529	950	3,596,662
1	193,0318	1	571,585	1	950,117	1	1,328,630	1	1,707,183	1	2,085,716	1	2,462,782	1	3,221,315	1	3,599,647
2	196,8371	2	575,370	2	953,903	2	1,332,436	2	1,710,968	2	2,085,630	2	2,466,567	2	3,225,100	2	3,603,633
3	200,6224	3	579,155	3	957,688	3	1,336,221	3	1,714,754	3	2,093,287	3	2,471,820	3	2,850,352	3	3,228,885
4	204,4077	4	582,941	4	961,473	4	1,343,006	4	1,718,539	4	2,097,072	4	2,475,605	4	2,851,118	4	3,221,203
5	208,1931	5	586,726	5	965,259	5	1,343,792	5	1,722,324	5	2,100,657	5	2,479,390	5	2,857,923	5	3,236,456
6	211,9784	6	590,511	6	969,044	6	1,347,577	6	1,726,110	6	2,104,643	6	2,483,175	6	2,861,708	6	3,240,241
7	215,7637	7	594,297	7	972,829	7	1,351,362	7	1,729,895	7	2,108,428	7	2,486,961	7	2,865,494	7	3,244,027
8	219,5941	8	598,082	8	976,615	8	1,355,148	8	1,733,680	8	2,112,213	8	2,490,279	8	2,869,279	8	3,247,812
9	223,3344	9	601,867	9	980,400	9	1,358,933	9	1,737,466	9	2,115,999	9	2,494,531	9	2,873,064	9	3,251,597
60	227,11797	160	605,653	260	984,185	360	1,362,718	460	1,741,251	560	2,119,784	660	2,498,317	760	2,886,850	860	3,255,383
1	230,9050	1	609,439	1	981,791	1	1,366,504	1	1,745,036	1	2,123,669	1	2,502,102	1	2,880,635	1	3,259,168
2	234,6904	2	613,223	2	981,756	2	1,370,289	2	1,748,822	2	2,127,355	2	2,505,887	2	2,884,420	2	3,262,955
3	238,4557	3	617,069	3	995,541	3	1,374,074	3	1,752,607	3	2,131,440	3	2,509,673	3	2,889,206	3	3,266,738
4	242,2610	4	620,794	4	999,327	4	1,377,860	4	1,756,392	4	2,134,925	4	2,513,438	4	2,891,991	4	3,270,524
5	246,0464	5	624,579	5	1,003,111	5	1,381,645	5	1,760,178	5	2,138,711	5	2,517,243	5	2,895,776	5	3,274,271
6	249,8117	6	628,165	6	1,006,897	6	1,385,430	6	1,763,963	6	2,142,496	6	2,521,029	6	2,899,562	6	3,278,094
7	253,6170	7	632,950	7	1,014,683	7	1,389,216	7	1,767,748	7	2,146,281	7	2,528,814	7	2,903,347	7	3,660,413
8	257,4023	8	637,950	8	1,014,468	8	1,393,001	8	1,771,534	8	2,150,067	8	2,528,559	8	2,907,132	8	3,285,665
9	261,1877	9	639,721	9	1,018,253	9	1,396,786	9	1,775,319	9	2,153,852	9	2,532,385	9	2,910,918	9	3,289,450
70	264,9730	170	643,506	270	1,022,039	370	1,400,572	470	1,779,104	570	2,157,637	670	2,536,170	770	2,914,703	870	3,293,236
1	268,7583	1	647,291	1	1,025,824	1	1,404,357	1	1,782,890	1	2,161,223	1	2,539,705	1	2,917,021	1	3,675,554
2	272,5437	2	651,077	2	1,029,609	2	1,408,142	2	1,786,527	2	2,165,208	2	2,543,741	2	2,922,274	2	3,300,896
3	276,3290	3	654,862	3	1,033,395	3	1,411,928	3	1,790,460	3	2,168,993	3	2,547,526	3	2,927,059	3	3,383,319
4	280,1143	4	658,647	4	1,037,180	4	1,415,713	4	1,794,246	4	2,172,779	4	2,551,311	4	2,929,844	4	3,386,377
5	285,8996	5	662,512	5	1,040,965	5	1,419,498	5	1,798,031	5	2,176,564	5	2,555,097	5	2,935,640	5	3,390,695
6	287,6850	6	666,218	6	1,044,751	6	1,423,284	6	1,801,349	6	2,180,166	6	2,558,882	6	2,937,415	6	3,395,948
7	291,4703	7	670,003	7	1,048,516	7	1,427,069	7	1,805,602	7	2,184,135	7	2,562,667	7	2,941,200	7	3,398,266
8	295,2556	8	673,788	8	1,052,321	8	1,430,884	8	1,809,387	8	2,187,220	8	2,566,453	8	2,944,986	8	3,402,051
9	299,0410	9	677,374	9	1,056,107	9	1,434,640	9	1,813,172	9	2,191,705	9	2,570,238	9	2,948,771	9	3,327,304
80	302,8263	180	681,359	280	1,059,892	380	1,438,425	480	1,816,958	580	2,195,491	680	2,574,023	780	2,952,556	880	3,331,089
1	306,6116	1	685,444	1	1,063,677	1	1,442,210	1	1,820,743	1	2,199,276	1	2,577,809	1	2,956,332	1	3,713,407
2	309,3969	2	688,930	2	1,067,995	2	1,445,500	2	1,824,528	2	2,203,661	2	2,581,594	2	2,960,127	2	3,717,193
3	314,1823	3	692,715	3	1,071,248	3	1,449,781	3	1,828,314	3	2,206,847	3	2,585,379	3	2,963,912	3	3,720,978
4	317,9679	4	696,500	4	1,075,033	4	1,453,566	4	1,832,099	4	2,210,632	4	2,589,165	4	2,967,630	4	3,724,763
5	321,7529	5	700,296	5	1,078,815	5	1,457,351	5	1,835,884	5	2,214,417	5	2,592,950	5	2,971,483	5	3,735,016
6	325,5583	6	704,071	6	1,082,604	6	1,461,137	6	1,839,670	6	2,218,203	6	2,596,715	6	2,975,268	6	3,732,334
7	329,3336	7	707,856	7	1,086,389	7	1,464,922	7	1,843,455	7	2,221,988	7	2,600,521	7	2,979,054	7	3,736,119
8	333,1089	8	711,642	8	1,090,175	8	1,468,707	8	1,847,240	8	2,225,733	8	2,604,306	8	2,982,839	8	3,739,505
9	336,8942	9	715,427	9	1,093,960	9	1,472,493	9	1,851,026	9	2,229,558	9	2,608,091	9	2,986,624	9	3,743,690
90	340,6796	190	719,212	290	1,097,745	390	1,476,278	490	1,854,811	590	2,233,344	690	2,611,877	790	2,990,410	890	3,368,942
1	344,4469	1	722,998	1	1,101,531	1	1,480,063	1	1,858,596	1	2,237,129	1	2,615,662	1	2,994,195	1	3,755,261
2	348,2502	2	726,783	2	1,105,316	2	1,483,819	2	1,862,382	2	2,240,914	2	2,619,447	2	2,997,980	2	3,756,513
3	352,0556	3	730,568	3	1,109,101	3	1,487,634	3	1,866,167	3	2,244,700	3	2,623,213	3	3,001,766	3	3,758,831
4	355,8209	4	734,354	4	1,112,887	4	1,491,419	4	1,869,952	4	2,248,885	4	2,627,018	4	3,084,094	4	3,762,617
5	359,6662	5	738,139	5	1,116,672	5	1,495,265	5	1,873,738	5	2,252,770	5	2,630,803	5	3,099,336	5	3,766,402
6	363,3915	6	741,924	6	1,120,437	6	1,498,990	6	1,877,523	6	2,256,056	6	2,634,589	6	3,013,121	6	3,791,654
7	367,1769	7	745,710	7	1,124,243	7	1,502,775	7	1,881,308	7	2,259,441	7	2,638,374	7	3,021,907	7	3,773,973
8	370,9222	8	749,495	8	1,128,028	8	1,506,561	8	1,885,094	8	2,263,626	8	2,642,159	8	3,024,477	8	3,777,758
9	374,7475	9	753,280	9	1,131,813	9	1,510,346	9	1,888,879	9	2,267,412	9	2,645,945	9	3,024,050	9	3,781,543

CAPACITY—LITERS TO GALLONS

[Reduction factor: 1 liter=0.26417786 gallons]

Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons	Liters	Gallons
0	0	100	26.4178	200	52.8356	300	79.2534	400	105.6711	500	132.0889	600	158.5067
1	0.26418	1	26.6820	2	52.0997	3	79.5175	4	105.4953	5	132.3551	6	158.7799
2	0.52836	2	52.1961	3	53.6339	4	79.7817	5	106.1995	6	132.6173	7	159.0351
3	0.79255	3	77.2103	4	27.4745	5	53.8923	6	80.0459	7	106.4637	8	132.8815
4	1.05671	4	27.7387	5	54.1565	6	80.3101	7	106.7279	8	133.1456	9	159.5634
5	1.32089	5	28.0029	6	54.4206	7	80.5742	8	106.9920	9	133.4098	10	159.8276
6	1.58507	6	28.2670	7	54.6848	8	80.8384	9	107.2562	10	133.6740	11	160.5096
7	1.84925	7	28.5312	8	54.9490	9	81.1026	10	107.5204	11	133.9382	12	160.3550
8	2.11342	8	28.7954	9	55.2132	10	81.3668	11	107.7846	12	134.2024	13	160.0201
9	2.37760	9	81.6310	10	108.0487	11	81.6310	12	108.497	13	134.4665	14	160.8843
10	2.64178	10	29.0596	11	55.4774	12	81.8951	13	108.3129	14	134.7307	15	161.1485
11	2.90596	11	29.1237	12	55.7415	13	82.1593	14	108.5771	15	134.9949	16	161.4127
12	3.17013	12	29.3879	13	56.0057	14	82.4235	15	108.8413	16	135.2591	17	161.6769
13	3.4431	13	29.8521	14	56.2699	15	82.6877	16	109.1055	17	135.5232	18	161.9410
14	3.68849	14	30.1163	15	56.5341	16	82.9518	17	109.3696	18	135.7874	19	162.2052
15	3.96267	15	30.3895	16	56.7982	17	83.2160	18	109.5338	19	136.0516	20	162.4694
16	4.22685	16	30.6446	17	57.0624	18	83.4602	19	109.8980	20	136.3158	21	162.7336
17	4.49102	17	30.9088	18	57.2266	19	83.7444	20	110.1622	21	136.5800	22	163.5961
18	4.75520	18	31.1730	19	57.5908	20	84.0086	21	110.4263	22	136.8441	23	163.2619
19	5.01938	19	31.4372	20	57.8550	21	84.2727	22	110.5905	23	137.1083	24	163.5261
20	5.28356	20	31.7013	21	58.1191	22	84.5369	23	110.9547	24	137.3725	25	163.7903
21	5.54774	21	31.9655	22	58.3833	23	84.8011	24	111.2189	25	137.6367	26	164.0545
22	5.81191	22	32.2297	23	58.6475	24	85.0612	25	111.4631	26	137.9008	27	164.4272
23	6.07609	23	32.1939	24	58.9117	25	85.1294	26	111.7472	27	138.1650	28	164.5828
24	6.34027	24	32.1581	25	59.1758	26	85.3940	27	112.0114	28	138.4292	29	164.8492
25	6.60445	25	33.0222	26	59.4400	27	85.8578	28	112.2756	29	138.6934	30	165.1112
26	6.88862	26	33.2864	27	59.7042	28	86.1220	29	112.5398	30	138.9576	31	165.3753
27	7.15280	27	33.5512	28	59.9684	29	86.3862	30	112.8039	31	139.2217	32	165.6395
28	7.39698	28	33.8148	29	60.2326	30	86.6503	31	113.0681	32	139.4859	33	165.9037
29	7.66116	29	34.0789	30	60.4967	31	86.9145	32	113.3232	33	139.7501	34	166.1679
30	7.92534	30	34.3431	31	60.7699	32	87.1787	33	113.5965	34	140.1443	35	166.4321
31	8.18951	31	34.6073	32	61.0251	33	87.4429	34	113.8607	35	140.2784	36	166.6962
32	8.45369	32	34.8715	33	61.2893	34	87.7070	35	114.1248	36	140.5246	37	166.9604
33	8.71787	33	35.1357	34	61.5534	35	87.9712	36	114.3890	37	140.8068	38	167.2426
34	8.98205	34	35.3998	35	61.8176	36	88.2354	37	114.6532	38	141.0710	39	167.4888
35	9.24623	35	35.6640	36	62.0818	37	88.4996	38	114.9174	39	141.3532	40	167.5729
36	9.51040	36	35.9282	37	62.3460	38	88.7638	39	115.1815	40	141.5993	41	168.0717
37	9.77458	37	36.1924	38	62.6102	39	89.0279	40	115.4557	41	141.8635	42	168.2813
38	10.03876	38	36.4556	39	62.8743	40	89.2921	41	115.7099	42	142.1277	43	168.5455
39	10.30294	39	36.7207	40	63.1385	41	89.5563	42	115.9741	43	142.3919	44	168.8097
40	10.56711	40	36.9849	41	63.4027	42	89.8205	43	116.2383	44	142.6560	45	169.0738
41	10.83129	41	37.2491	42	63.6669	43	90.0845	44	116.5024	45	142.9202	46	169.3380
42	11.09547	42	37.1133	43	63.9310	44	90.3488	45	116.7666	46	143.1844	47	169.6022
43	11.35965	43	37.4774	44	64.1950	45	90.6038	46	117.0308	47	143.4486	48	169.8664
44	11.62383	44	38.0416	45	64.4594	46	90.8772	47	117.2550	48	143.7128	49	170.1305
45	11.88900	45	38.3058	46	64.7236	47	91.1414	48	117.5591	49	143.9769	50	170.3947
46	12.15218	46	38.5655	47	64.9878	48	91.4055	49	117.8333	50	144.2111	51	170.6589
47	12.41636	47	38.8341	48	65.2519	49	91.6697	50	118.0875	51	145.5053	52	171.0767
48	12.66054	48	39.0983	49	65.5161	50	91.9339	51	118.3575	52	146.7695	53	171.4514
49	12.94472	49	39.3625	50	65.7803	51	92.1981	52	118.6159	53	147.0936	54	171.8692

900	237.7601	900	237.7601
1	238.0243	1	238.0243
2	238.2884	2	238.2884
3	238.5526	3	238.5526
4	238.8168	4	238.8168
5	239.0810	5	239.0810
6	239.3459	6	239.3459
7	239.6093	7	239.6093
8	239.8735	8	239.8735
9	240.1377	9	240.1377

910	240.4019	910	240.4019
1	240.6660	1	240.6660
2	240.9202	2	240.9202
3	241.1944	3	241.1944
4	241.4586	4	241.4586
5	241.7227	5	241.7227
6	242.9869	6	242.9869
7	243.2511	7	243.2511
8	243.5153	8	243.5153
9	242.7795	9	242.7795

920	243.0436	920	243.0436
1	243.3078	1	243.3078
2	243.5720	2	243.5720
3	243.8414	3	243.8414
4	243.1033	4	243.1033
5	243.3645	5	243.3645
6	243.6287	6	243.6287
7	243.8947	7	243.8947
8	244.1602	8	244.1602
9	244.4212	9	244.4212

930	245.6854	930	245.6854
1	245.9518	1	245.9518
2	246.2138	2	246.2138
3	246.4779	3	246.4779
4	246.7418	4	246.7418
5	247.0066	5	247.0066
6	247.2705	6	247.2705
7	247.5447	7	247.5447
8	247.7988	8	247.7988
9	248.0630	9	248.0630

940	248.3272	940	248.3272
1	248.5914	1	248.5914
2	248.8555	2	248.8555
3	249.1197	3	249.1197
4	249.3839	4	249.3839
5	249.6481	5	249.6481
6	249.9123	6	249.9123
7	250.1764	7	250.1764
8	250.4406	8	250.4406
9	250.7048	9	250.7048

50	13.20889	150	39.6267	250	66.0445	350	92.4623	450	118.8800	550	145.2978	650	171.7156	750	198.1334	850	224.5512	950	250.9690
1	13.47397	39.8909	2	40.1550	66.5728	1	92.7264	1	119.4412	1	145.5620	1	171.9798	1	198.3976	1	224.8154	1	251.2331
2	13.73725	40.4192	3	40.8170	66.8370	2	92.9906	2	119.4084	2	145.8262	2	172.2440	2	198.6618	2	225.0795	2	251.4973
3	14.00143	40.1012	4	40.6834	67.1012	3	93.2548	3	119.6726	3	146.0904	3	172.5081	3	198.9259	3	225.3437	3	251.7615
4	14.26550	40.5978	5	40.9476	67.3654	4	93.5190	4	119.9367	4	146.1545	4	172.7721	4	199.1901	4	225.6079	4	252.0357
5	14.52978	41.2117	6	41.4759	67.6295	5	94.0473	5	120.4651	5	146.6187	5	173.0355	5	199.4553	5	225.8771	5	252.2599
6	14.79386	41.7401	7	41.7401	67.8937	6	94.3115	6	120.7293	6	146.8829	6	173.3007	6	199.7185	6	226.1527	6	252.5540
7	15.08144	41.7401	8	41.7401	68.1579	7	94.5757	7	120.9935	7	147.4112	7	173.5649	7	199.9826	7	226.4004	7	252.8182
8	15.38232	42.0043	9	42.0043	68.4221	8	94.8399	8	121.2956	9	147.6754	9	174.0932	9	200.5110	9	226.6642	9	253.0824
9	15.58649	42.0043	10	42.0043	68.6862	11	95.1040	10	121.5218	11	148.2038	11	174.6216	11	201.0394	11	227.4571	11	253.8749
60	15.85067	160	42.52685	260	68.6862	360	95.1040	460	121.5218	560	147.9396	660	174.3574	760	200.7752	860	227.1930	960	253.6107
1	16.11485	42.52685	2	42.52685	68.9504	1	95.3882	1	121.7860	1	148.3882	1	174.8557	1	201.3035	1	227.7213	1	254.1591
2	16.37903	43.0610	3	43.0610	69.4788	2	95.4624	2	122.0562	3	148.7321	3	175.1499	3	201.5677	3	228.9835	3	254.4033
3	16.64321	43.3252	4	43.3252	69.7430	3	95.8966	3	122.3143	4	148.9963	4	175.4141	4	201.8319	4	228.6675	4	254.6675
4	16.90738	43.5893	5	43.5893	70.0071	5	96.4249	5	122.8427	5	149.2605	5	175.6783	5	202.0961	5	228.5138	5	254.9316
5	17.17156	43.8535	6	43.8535	70.2713	6	96.6891	6	123.1069	6	149.5247	6	175.9425	6	202.3602	6	228.7780	6	255.1958
6	17.43574	44.1177	7	44.1177	70.5535	7	96.9333	7	123.3711	7	149.7886	7	176.2066	7	202.6244	7	229.0422	7	255.4600
7	17.69992	44.3819	8	44.3819	70.7997	8	97.2175	8	123.6352	8	150.0530	8	176.4708	8	202.8886	8	229.3064	8	255.7442
8	17.96499	44.6461	9	44.6461	71.0638	9	97.4816	9	123.8994	9	150.3172	9	176.7350	9	203.1528	9	229.5983	9	255.9883
9	18.22875	44.6461	10	44.6461	71.0638	11	97.6461	10	124.1070	11	148.4038	11	176.8857	11	203.4170	11	227.4571	11	255.8749
70	18.49245	170	44.9102	270	71.3280	370	97.7458	470	124.1636	570	150.5814	670	176.9992	770	203.8434	870	229.8347	970	256.2257
1	18.75663	45.1744	2	45.1744	71.5922	1	97.0100	1	124.4278	1	150.8456	1	177.6263	1	203.6811	1	230.0989	1	256.5167
2	19.02081	45.4386	3	45.4386	72.0286	2	97.8564	2	124.6919	2	151.1109	2	177.5275	2	203.9453	2	230.3631	2	256.7809
3	19.28498	45.7028	4	45.7028	72.1206	3	98.5183	3	124.9561	3	151.3739	3	177.7917	3	204.2995	3	230.6273	3	257.0451
4	19.55116	45.9669	5	45.9669	72.3847	4	98.8025	4	125.2631	4	151.6381	4	178.0559	4	204.4777	4	230.8914	4	257.3092
5	19.81334	46.2311	6	46.2311	72.6489	5	99.0667	5	125.4835	5	151.9023	5	178.3201	5	204.7378	5	231.1556	5	257.5374
6	20.07552	46.4953	7	46.4953	72.9131	6	99.3309	6	125.7487	6	152.1664	6	178.5842	6	205.0020	6	231.4198	6	257.8376
7	20.34170	46.7595	8	46.7595	73.1773	7	99.5951	7	126.0128	7	152.4306	7	178.8484	7	205.2662	7	231.6840	7	258.1018
8	20.60587	47.0237	9	47.0237	73.4414	8	99.8392	8	126.2770	8	152.9498	8	179.1122	8	205.5304	8	231.9482	8	258.3659
9	20.87005	47.2878	10	47.2878	73.7056	9	100.1234	9	126.5412	9	152.9590	9	179.3768	9	205.7946	9	232.2123	9	258.6301
80	21.14423	180	47.55220	280	73.9698	380	100.3876	480	126.8054	580	151.2232	680	179.6409	780	206.0587	880	232.4765	980	258.8943
1	21.39841	47.8162	2	47.8162	74.2340	1	100.6518	1	127.0337	2	151.8713	2	179.1583	2	206.3229	2	233.4049	2	259.4277
2	21.66258	48.0804	3	48.0804	74.4982	2	100.9159	2	127.3337	3	152.1057	3	180.1693	3	206.5871	3	233.6049	3	259.4277
3	21.92676	48.3445	4	48.3445	74.7623	3	101.1801	3	127.5979	4	152.0157	4	180.4335	4	206.8977	4	233.6868	4	259.6333
4	22.19094	48.6087	5	48.6087	75.0265	4	101.4443	4	127.8621	5	152.2799	5	180.6977	5	207.1154	5	233.5332	5	259.9310
5	22.45512	48.8729	6	48.8729	75.2907	5	101.7085	5	128.1263	5	154.4440	5	180.9618	5	207.3796	5	233.7924	5	260.2152
6	22.71930	49.1371	7	49.1371	75.5549	6	101.9277	6	128.3904	6	154.8082	6	181.2260	6	207.6438	6	234.0616	6	260.4794
7	22.98347	49.4013	8	49.4013	75.8190	7	102.2368	7	128.5546	7	155.0724	7	181.4902	7	207.9080	7	234.3258	7	260.7435
8	23.24765	49.6654	9	49.6654	76.3474	8	102.5010	8	128.9188	8	155.3366	8	181.7344	8	208.4353	8	234.8077	8	261.0077
9	23.51183	49.9296	10	49.9296	76.3474	9	102.7652	9	129.1830	9	155.6008	9	182.0185	9	208.4353	9	234.8541	9	261.2719
90	23.77601	190	50.1938	290	76.6116	390	103.0294	490	129.4472	590	155.8649	690	182.2827	790	208.7005	890	235.1183	990	261.5361
1	24.04019	50.4880	2	50.4880	76.8758	1	103.2935	2	129.7113	1	156.1291	2	182.8111	2	209.2289	2	235.3825	2	261.8003
2	24.30436	50.7221	3	50.7221	77.1399	2	103.5577	2	129.9755	2	156.3933	2	183.0533	2	209.4930	2	235.6467	2	262.0644
3	24.56854	50.9663	3	50.9663	77.4041	3	103.8219	3	130.2397	3	156.6575	3	183.3593	3	209.7572	3	235.9108	3	262.5286
4	24.83272	51.2055	4	51.2055	77.6663	4	104.0861	4	130.5039	4	156.9416	4	183.3594	4	209.7572	4	236.1750	4	262.5928
5	25.09692	51.5147	5	51.5147	77.9225	5	104.3503	5	130.7680	5	157.1858	5	183.6036	5	210.0214	5	236.4392	5	262.8870
6	25.36107	51.7789	6	51.7789	78.1966	6	104.6144	6	131.0322	6	157.4500	6	183.8678	6	210.2856	6	236.7034	6	263.1111
7	25.62525	52.0430	7	52.0430	78.4608	7	104.8786	7	131.2964	7	157.7142	7	184.1320	7	210.5498	7	236.3853	7	263.3853
8	25.88943	52.3072	8	52.3072	78.7250	8	105.1428	8	131.5606	8	157.9784	8	184.3962	8	210.8139	8	237.2317	8	263.6495
9	26.15361	52.5714	9	52.5714	78.9892	9	105.4070	9	131.8248	9	158.2425	9	184.6663	9	211.0781	9	237.4957	9	263.9137

CAPACITY—BUSHELS TO HECTOLITERS

[Reduction factor: 1 bushel=0.35738295 hectoliters]

Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters
0	35.2383	100	35.5907	200	70.4766	300	105.7149	400	140.9532	500	176.1915	600	211.4298
1	0.35738	1	0.70497	2	1.411.3056	1	1.41.3056	2	1.41.3056	1	1.41.3056	2	1.41.3056
2	1.40953	3	1.05715	4	1.40953	3	1.05715	4	1.05715	3	1.05715	4	1.05715
3	1.76191	5	3.7.0002	4	3.7.0002	5	7.1.8861	4	107.1244	5	142.3627	4	177.6010
4	3.7.3226	6	7.2.46668	7	7.2.46668	6	7.2.46668	7	7.2.46668	6	7.2.46668	7	7.2.46668
5	7.1745	8	13.81906	9	13.81906	8	13.81906	9	13.81906	8	13.81906	9	13.81906
6	11.0	1	38.7621	210	74.0004	310	109.2387	410	144.4770	510	179.7153	610	214.5356
7	3.87621	2	39.4469	1	74.3322	2	74.7052	1	109.5911	1	144.8294	1	180.6677
8	3.42286	3	39.8193	3	39.8193	3	75.0376	3	110.2935	3	145.3342	3	180.4201
9	3.45898	4	40.1717	4	40.1717	5	75.7623	4	110.6482	4	145.8865	4	181.4248
10	3.52383	5	4.22861	6	4.22861	7	40.5424	5	111.0006	5	146.3389	5	181.4772
11	3.86762	8	4.42861	9	4.42861	10	40.8764	6	111.3510	6	146.5913	6	181.8396
12	4.04773	11	4.46717	12	4.46717	13	44.4079	7	111.7054	7	146.9437	8	182.1820
13	4.47734	14	4.47734	15	4.47734	16	44.4093	8	112.0578	8	147.2961	9	182.5344
14	4.83574	17	4.83574	18	4.83574	19	44.4093	9	112.4102	9	147.6485	9	182.8868
15	5.25715	20	5.25715	21	5.25715	22	42.2866	20	77.5424	21	112.7625	22	148.0008
16	5.68813	23	5.68813	24	5.68813	25	44.4079	21	113.1149	21	148.3532	21	183.5915
17	6.09051	26	6.34289	27	6.41582	28	44.4079	22	113.4673	22	148.7056	22	183.9439
18	6.49336	29	6.69528	30	6.77427	31	45.8095	23	113.8197	23	149.0104	23	184.6487
19	7.1745	32	7.1745	33	7.1745	34	44.4079	24	114.1721	24	149.4262	24	184.6785
20	7.40064	35	7.40064	36	7.40064	37	44.4079	25	114.5265	25	149.7628	25	185.0010
21	7.75242	38	7.75242	39	7.75242	40	44.4079	26	114.8768	26	150.1151	26	185.3534
22	8.00000	41	8.00000	42	8.00000	43	44.4079	27	115.2292	27	150.4675	27	185.7058
23	8.24571	44	8.24571	45	8.24571	46	44.4079	28	115.5819	28	150.8199	28	186.0582
24	8.48571	47	8.48571	48	8.48571	49	44.4079	29	115.9340	29	151.1723	29	186.4106
25	8.80957	50	8.80957	51	8.80957	52	44.4079	30	116.2862	30	151.5247	30	186.7630
26	9.16196	53	9.16196	54	9.16196	55	44.4079	31	116.6385	31	151.8768	31	187.1153
27	9.51434	56	9.51434	57	9.51434	58	44.4079	32	117.0007	32	152.2294	32	187.4677
28	9.86672	59	9.86672	60	9.86672	61	44.4079	33	117.3435	33	152.5818	33	187.8201
29	10.21911	62	10.21911	63	10.21911	64	44.4079	34	117.6895	34	152.9342	34	188.1725
30	10.57149	65	10.57149	66	10.57149	67	44.4079	35	118.0483	35	153.2866	35	188.5449
31	10.92387	68	10.92387	69	10.92387	70	44.4079	36	118.4007	36	153.6390	36	188.8973
32	11.27625	71	11.27625	72	11.27625	73	44.4079	37	118.7531	37	153.9913	37	189.2296
33	11.62864	74	11.62864	75	11.62864	76	44.4079	38	119.1054	38	154.3437	38	189.5820
34	11.98102	77	11.98102	78	11.98102	79	44.4079	39	119.4578	39	154.6961	39	189.9344
35	12.33430	80	12.33430	81	12.33430	82	44.4079	40	119.8102	40	155.0485	40	190.2868
36	12.68579	83	12.68579	84	12.68579	85	44.4079	41	120.1626	41	155.4009	41	190.6392
37	13.03817	86	13.03817	87	13.03817	88	44.4079	42	120.5150	42	155.7531	42	190.9916
38	13.39055	89	13.39055	90	13.39055	91	44.4079	43	120.8674	43	156.1056	43	191.3439
39	13.74294	92	13.74294	93	13.74294	94	44.4079	44	121.2197	44	156.4580	44	191.6963
40	14.09532	95	14.09532	96	14.09532	97	44.4079	45	121.5797	45	156.8104	45	192.0408
41	14.44770	98	14.44770	99	14.44770	100	44.4079	46	121.9245	46	157.1628	46	192.4011
42	14.80078	101	14.80078	102	14.80078	103	44.4079	47	122.2086	47	157.5152	47	192.7535
43	15.15247	104	15.15247	105	15.15247	106	44.4079	48	122.6293	48	157.8676	48	193.1059
44	15.50495	107	15.50495	108	15.50495	109	44.4079	49	122.9816	49	158.2199	49	193.4538
45	15.85723	110	15.85723	111	15.85723	112	44.4079	50	123.3436	50	158.5651	50	193.8050
46	16.20962	113	16.20962	114	16.20962	115	44.4079	51	123.7074	51	158.9155	51	194.1114
47	16.56200	116	16.56200	117	16.56200	118	44.4079	52	124.0712	52	159.2679	52	194.4684
48	16.91438	119	16.91438	120	16.91438	121	44.4079	53	124.4350	53	159.6205	53	194.8207
49	17.26676	122	17.26676	123	17.26676	124	44.4079	54	124.7929	54	159.9731	54	195.1731

50	17,61915	150	52,8574	250	88,0957	350	123,3340	450	158,5723	550	193,8106	650	229,4019	750	264,2372	850	299,5255	950	334,7638
1	17,97153	1	123,6864	1	158,9457	1	194,1630	1	229,4019	1	264,6396	1	299,8779	1	335,1162	1	335,1162	1	335,1162
2	18,32391	2	124,0388	2	159,7537	2	194,5154	2	229,7537	2	264,9920	2	300,2303	2	335,4686	2	335,4686	2	335,4686
3	18,57630	3	124,9146	3	159,6295	3	194,8678	3	230,1061	3	265,3444	3	300,5827	3	335,9210	3	335,9210	3	335,9210
4	19,02868	4	124,2670	4	124,7436	4	159,9819	4	195,2202	4	230,4584	4	265,6567	4	300,9350	4	336,7133	4	336,7133
5	19,38106	5	124,6194	5	89,8575	5	160,3442	5	195,5725	5	230,8108	5	266,4915	5	301,2874	5	336,5257	5	336,5257
6	19,73345	6	125,4483	6	160,6866	6	160,9249	6	231,1632	6	266,4915	6	301,6598	6	336,8787	6	336,8787	6	336,8787
7	20,07583	7	125,9717	7	90,2100	7	161,5057	7	196,7390	7	231,5156	7	266,7339	7	301,9922	7	337,2305	7	337,2305
8	20,43821	8	125,3241	8	90,9148	8	161,3914	8	196,6297	8	231,8680	8	267,1063	8	302,3446	8	337,5829	8	337,5829
9	20,79059	9	126,5055	9	91,2672	9	161,7438	9	196,9821	9	232,2204	9	267,4887	9	302,6970	9	337,9352	9	337,9352
60	21,14298	160	56,3813	260	91,6196	360	126,8579	460	162,0962	560	197,3345	660	232,9251	760	267,8110	860	303,0493	960	338,2876
1	21,19536	1	56,7337	1	91,9719	1	127,2102	1	162,4485	1	197,6885	1	232,2775	1	268,1634	1	303,4903	1	338,6400
2	21,84774	2	57,0860	2	92,3243	2	127,526	2	162,8009	2	198,0392	2	233,2775	2	268,5158	2	303,7341	2	338,9924
3	22,02013	3	57,4384	3	128,767	3	163,1533	3	198,3916	3	233,6269	3	269,2206	3	304,1065	3	339,4448	3	339,4448
4	22,55251	4	57,9308	4	93,0291	4	128,2674	4	163,5057	4	198,4410	4	233,9823	4	269,2206	4	304,4389	4	339,6972
5	22,90489	5	58,142	5	93,3815	5	128,6198	5	163,8881	5	199,0964	5	234,3347	5	270,8113	5	340,0495	5	340,0495
6	23,25727	6	58,4956	6	93,7339	6	128,9722	6	164,2105	6	199,4487	6	234,6870	6	269,9253	6	305,1636	6	340,4019
7	23,60967	7	58,8486	7	94,0862	7	129,3245	7	164,528	7	199,8011	7	235,0194	7	270,5160	7	340,7543	7	341,1067
8	23,96204	8	59,2003	8	94,4386	8	129,6769	8	164,952	8	200,1535	8	235,3918	8	270,6301	8	305,8684	8	341,4591
9	24,31442	9	59,5527	9	94,9710	9	130,0293	9	165,2676	9	200,5059	9	235,7442	9	270,9825	9	306,2268	9	341,4591
70	24,66681	170	59,9051	270	95,1434	370	130,3817	470	165,6200	570	190,8583	670	236,0966	770	271,3349	870	306,5732	970	341,8115
1	25,01919	1	60,3575	1	95,4958	1	130,7341	1	165,9742	1	201,2107	1	236,4490	1	271,6877	1	306,9255	1	342,1638
2	25,37157	2	60,6099	2	95,8482	2	131,0865	2	166,3248	2	201,5610	2	236,8013	2	272,0277	2	307,2779	2	342,5162
3	26,09623	3	60,9623	3	96,2005	3	131,7912	3	166,6771	3	201,9154	3	237,1537	3	272,3920	3	307,6303	3	342,8686
4	26,07634	4	61,3146	4	96,5529	4	131,9722	4	167,0295	4	202,2678	4	237,5061	4	272,7444	4	307,9825	4	343,2210
5	26,42872	5	61,6670	5	96,9053	5	132,1436	5	167,3819	5	202,6202	5	237,8885	5	273,0968	5	308,3351	5	343,2734
6	26,81101	6	62,0194	6	97,2577	6	132,4962	6	167,7443	6	202,9726	6	238,2109	6	273,4492	6	308,6875	6	343,5258
7	26,13349	7	62,3718	7	97,6101	7	132,8884	7	168,0867	7	203,3259	7	238,5653	7	273,8016	7	309,0398	7	344,7781
8	27,48587	8	62,7425	8	98,2008	8	133,5531	8	168,4911	8	203,6773	8	239,2680	8	274,5063	8	309,3922	8	344,6305
9	27,33825	9	63,0765	9	98,3148	9	133,5531	9	168,7914	9	204,2997	9	240,5063	9	274,7446	9	309,7446	9	344,9829
80	28,19064	180	63,4289	280	98,6672	380	133,9055	480	169,1438	580	204,3821	680	239,6204	780	274,8887	880	310,0970	980	345,3355
1	28,43032	1	63,7813	1	99,0196	1	134,6103	1	169,8462	1	204,7345	1	239,9728	1	274,5345	1	310,4494	1	345,6877
2	28,89559	2	64,1337	2	99,7244	2	134,9627	2	170,2010	2	205,0869	2	240,3493	2	275,9158	2	311,1541	2	346,1924
3	29,24778	3	64,8661	3	100,0768	3	135,3151	3	170,5533	3	205,7916	3	241,6776	3	276,2682	3	311,5065	3	346,4448
4	29,60017	4	65,3885	4	100,4291	4	135,6674	4	170,9057	4	206,4410	4	241,3823	4	276,6206	4	311,8859	4	347,9972
5	29,95255	5	65,1908	5	100,7813	5	136,0198	5	171,2381	5	206,4964	5	241,7347	5	276,9730	5	312,2113	5	347,4496
6	30,30493	6	65,4332	6	101,1339	6	136,3722	6	171,6105	6	206,8488	6	242,0871	6	277,3254	6	312,5637	6	347,8020
7	30,65732	7	65,8956	7	101,4863	7	136,7246	7	171,9029	7	207,2012	7	242,4395	7	277,6778	7	312,9161	7	348,1544
8	31,00970	8	66,6280	8	101,8387	8	137,0770	9	172,3153	9	207,5536	9	242,7919	9	278,0301	9	312,2684	9	348,5067
9	31,36208	9	66,6004	9	101,9387	9	137,0770	9	172,3153	9	207,5536	9	242,7919	9	278,0301	9	312,2684	9	348,5067
90	31,71447	190	66,9528	290	102,1911	390	137,4294	490	172,6676	590	207,9059	690	243,1442	790	278,3825	890	313,6208	990	348,8591
1	32,06685	1	67,4051	1	102,4434	1	137,7817	1	173,0200	1	208,2583	1	243,4966	1	278,7349	1	313,9215	1	349,2115
2	32,41923	2	67,6573	2	102,8958	2	138,1341	2	173,524	2	208,6107	2	243,8190	2	279,0873	2	314,3256	2	349,5639
3	32,77161	3	68,0099	3	103,2482	3	138,4865	3	173,7348	3	208,9631	3	244,2014	3	279,4397	3	314,6780	3	349,9163
4	33,12400	4	68,3623	4	103,6006	4	139,1913	4	174,0772	4	209,3155	4	244,5538	4	279,7921	4	315,0304	4	350,2687
5	33,46638	5	68,7147	5	103,9530	5	139,5436	5	174,4296	5	209,6679	5	244,9062	5	280,1444	5	315,3827	5	350,6210
6	33,82876	6	69,0671	6	104,3054	6	139,5436	6	174,7819	6	210,0202	6	245,2585	6	280,4968	6	315,7351	6	351,9734
7	34,18115	7	69,4194	7	104,6577	7	139,8960	7	175,1443	7	210,3726	7	245,6109	7	280,9492	7	316,0875	7	351,3258
8	34,53353	8	69,7118	8	140,2884	8	175,4867	8	175,8391	8	210,7250	8	245,6033	8	281,2016	8	316,4395	8	351,6782
9	34,88591	9	70,1242	9	105,3625	9	140,6008	9	175,8391	9	211,0774	9	246,3157	9	281,5540	9	316,7923	9	352,0306

CAPACITY—HECTOLITERS TO BUSHELS

(Reduction factor: 1 hectoliter=2.8378218 bushels)

Hecto- liters	Bush- els	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	
0	283.732	300	567.564	400	1,135.129	500	1,418.911	600	1,702.633	700	1,986.475	800	2,270.257	900
1	286.620	1	570.402	1	1,137.967	1	1,421.749	1	1,705.531	1	1,989.313	1	2,273.095	1
2	289.458	2	573.240	2	1,140.804	2	1,424.387	2	1,708.369	2	1,992.151	2	2,275.933	2
3	292.396	3	576.078	3	1,143.642	3	1,427.424	3	1,711.207	3	1,994.989	3	2,278.771	3
4	295.133	4	578.916	4	1,146.480	4	1,430.362	4	1,714.044	4	1,997.827	4	2,281.609	4
5	297.971	5	581.753	5	1,149.318	5	1,433.100	5	1,716.882	5	1,998.651	5	2,284.447	5
6	300.809	6	584.591	6	1,152.155	6	1,435.958	6	1,719.720	6	2,003.502	6	2,287.284	6
7	303.647	7	587.429	7	871.211	7	1,438.776	7	1,722.558	7	2,006.340	7	2,291.122	7
8	22.7026	8	306.385	8	874.049	8	1,457.831	8	1,441.613	8	2,009.178	8	2,292.960	8
9	25.5404	9	593.105	9	876.887	9	1,160.669	9	1,444.451	9	2,012.016	9	2,295.798	9
10	312.160	210	595.943	310	879.725	410	1,163.507	510	1,447.289	610	1,731.071	710	2,014.853	810
11	314.998	210	598.780	2	601.618	2	1,166.345	2	1,450.127	1	1,733.909	1	2,017.691	1
12	317.836	2	604.456	3	882.238	3	1,172.020	3	1,455.803	2	1,736.747	2	2,020.529	2
13	320.674	3	607.294	4	891.076	4	1,174.858	4	1,458.640	4	1,742.423	4	2,026.205	4
14	323.512	4	610.132	5	893.914	5	1,177.696	5	1,461.478	5	1,745.260	5	2,029.043	5
15	326.350	5	612.970	6	896.752	6	1,180.534	6	1,464.316	6	1,748.098	6	2,031.880	6
16	329.187	6	615.807	7	899.590	7	1,183.372	7	1,467.154	7	1,750.926	7	2,034.718	7
17	48.2430	7	332.025	8	892.327	8	1,186.210	8	1,469.992	8	1,753.774	8	2,037.556	8
18	51.0808	8	334.863	9	905.265	9	1,189.047	9	1,472.830	9	1,756.612	9	2,040.394	9
19	53.9186	9	621.483	9	1,190.701								2,044.338	9
20	56.7564	120	340.539	220	624.321	320	908.103	420	1,191.885	520	1,475.667	620	1,759.450	720
21	59.5943	120	343.376	1	627.159	1	910.941	1	1,197.723	1	1,474.530	1	2,043.232	820
22	62.4321	2	346.214	2	629.996	2	913.770	2	1,197.561	2	1,476.125	2	2,046.070	1
23	65.2699	3	349.052	3	632.834	3	916.616	3	1,200.399	3	1,478.181	3	2,048.908	2
24	68.1077	4	351.890	4	635.672	4	919.454	4	1,203.236	4	1,481.019	4	2,051.745	3
25	70.9455	5	355.228	5	638.510	5	922.292	5	1,206.074	5	1,482.856	5	2,054.583	4
26	73.7834	6	357.366	6	641.318	6	925.130	6	1,208.912	6	1,482.694	6	2,057.421	5
27	76.6210	7	360.403	7	644.186	7	927.968	7	1,211.752	7	1,485.532	7	2,060.259	6
28	79.4590	8	363.441	8	930.806	8	933.643	9	1,217.426	9	1,498.370	8	2,063.096	7
29	82.2968	9	366.079	9	649.861	9	1,245.802				1,501.208	9	2,066.972	8
30	85.1347	130	368.917	230	652.699	330	936.481	430	1,220.263	530	1,504.046	630	1,787.828	730
31	87.9725	1	371.755	1	655.537	1	939.319	1	1,223.101	1	1,506.883	1	2,074.448	830
32	90.8193	2	374.592	2	658.375	2	942.157	2	1,225.999	2	1,509.721	2	2,079.503	1
33	93.6481	3	377.330	3	661.212	3	944.995	3	1,228.777	3	1,512.559	3	2,086.341	2
34	96.4859	4	380.268	4	664.832	4	947.832	5	1,231.615	4	1,515.397	4	2,099.179	3
35	99.3238	5	383.106	5	666.888	5	950.670	5	1,234.452	5	1,518.235	5	2,082.017	4
36	102.1616	6	385.944	6	669.726	6	953.508	6	1,237.290	6	1,521.072	6	1,804.855	5
37	104.9994	7	388.782	7	672.564	7	956.346	7	1,240.128	7	1,526.910	7	1,808.637	6
38	107.8372	8	391.619	8	675.402	8	959.184	9	1,245.966	8	1,526.748	8	1,810.510	7
39	110.6751	9	394.457	9	678.239	9	962.022	9	1,245.804	9	1,529.386	9	1,813.368	8
40	113.5129	140	397.295	240	681.077	340	964.859	440	1,248.806	540	1,532.424	640	1,816.206	740
41	116.3507	1	400.133	1	683.915	1	967.697	1	1,251.479	1	1,533.262	1	1,819.044	840
42	119.1885	2	402.971	2	686.753	2	970.535	2	1,254.328	2	1,538.099	2	1,821.882	1
43	122.0263	3	405.809	3	689.591	3	973.373	3	1,257.155	3	1,540.917	3	1,824.719	2
44	124.8642	4	408.646	4	692.429	4	976.211	5	1,259.993	4	1,547.755	4	1,827.557	3
45	127.7020	5	411.484	5	695.266	5	979.049	5	1,262.831	5	1,546.613	5	1,830.395	4
46	130.5398	6	414.322	6	698.104	6	981.886	6	1,265.662	6	1,549.451	6	1,833.233	5
47	133.3776	7	417.160	7	700.942	7	984.724	8	1,268.506	7	1,552.889	7	1,837.079	6
48	136.2154	8	419.998	8	703.780	8	987.562	8	1,271.426	8	1,555.126	8	1,841.909	7
49	139.0533	9	422.835	9	706.618	9	990.400	9	1,274.182	9	1,557.964	9	1,841.746	8

50	141.8911	425.673	250	709.455	993.238	450	1,277.020	550	1,560.802	650	1,844.584	750	2,128.366	850	2,412.149	950	2,695.931
1	147.7289	428.511	2	715.131	996.913	1	1,299.858	1	1,563.640	1	1,847.422	1	2,131.204	1	2,414.924	1	2,698.769
2	147.5667	431.349	3	717.969	996.913	2	1,282.695	2	1,566.478	2	1,850.260	2	2,134.042	2	2,417.824	2	2,701.600
3	150.4946	434.187	4	720.025	996.913	3	1,295.533	3	1,569.315	3	1,853.098	3	2,136.880	3	2,420.662	3	2,704.444
4	150.4946	437.025	5	723.645	996.913	4	1,288.569	4	1,572.153	4	1,855.935	4	2,139.778	4	2,423.590	4	2,707.282
5	156.082	439.862	6	726.482	996.913	5	1,007.427	5	1,291.039	5	1,574.991	5	2,142.555	5	2,426.338	5	2,710.120
6	158.9180	442.700	7	729.320	996.913	6	1,010.265	6	1,294.047	6	1,577.829	6	1,861.611	6	2,429.175	6	2,715.958
7	161.5758	445.538	8	734.158	996.913	7	1,013.102	7	1,296.885	7	1,580.667	7	1,864.449	7	2,432.013	7	2,715.795
8	164.5937	448.376	9	734.996	996.913	8	1,015.940	8	1,299.722	8	1,583.505	8	1,867.287	8	2,434.851	8	2,718.633
9	167.4315	451.214	10	734.896	996.913	9	1,302.560	9	1,586.342	9	1,870.125	9	2,151.069	9	2,437.689	9	2,721.471
10	170.2693	454.051	11	737.834	996.913	10	1,021.616	10	1,305.398	10	1,589.180	10	1,872.962	10	2,156.745	10	2,440.527
11	173.1071	456.889	12	740.671	996.913	11	1,024.454	11	1,308.236	11	1,592.018	11	1,875.800	11	2,159.582	11	2,443.365
12	175.9450	459.856	13	743.509	996.913	12	1,027.291	12	1,310.074	12	1,594.856	12	1,878.638	12	2,162.420	12	2,446.202
13	178.7828	462.565	14	746.347	996.913	13	1,030.129	13	1,313.911	13	1,597.694	13	1,881.476	13	2,165.258	13	2,449.040
14	181.6216	465.403	15	749.185	996.913	14	1,032.967	14	1,316.749	14	1,600.531	14	1,884.314	14	2,168.096	14	2,455.660
15	184.4584	468.241	16	752.023	996.913	15	1,035.805	15	1,319.587	15	1,603.569	15	1,887.151	15	2,170.934	15	2,454.716
16	187.2962	471.078	17	754.861	996.913	16	1,038.643	16	1,322.426	16	1,606.207	16	1,889.989	16	2,173.771	16	2,457.554
17	190.1341	473.916	18	757.698	996.913	17	1,041.481	17	1,325.263	17	1,609.045	17	1,892.827	17	2,176.609	17	2,454.336
18	192.9719	476.754	19	760.536	996.913	18	1,044.318	18	1,328.101	18	1,611.883	18	1,895.665	18	2,177.447	18	2,460.329
19	195.8592	479.592	20	763.374	996.913	19	1,047.156	19	1,330.938	19	1,614.721	19	1,898.503	19	2,182.285	19	2,466.067
20	198.6475	482.430	21	766.212	996.913	20	1,049.994	20	1,333.776	20	1,617.558	20	1,901.341	20	2,185.133	20	2,468.905
21	201.4833	485.268	22	771.888	996.913	21	1,052.832	21	1,336.614	21	1,620.396	21	1,904.178	21	2,187.961	21	2,471.743
22	204.3232	488.105	23	774.725	996.913	22	1,055.670	22	1,339.290	22	1,623.234	22	1,907.016	22	2,190.798	22	2,474.581
23	207.1610	490.943	24	777.563	996.913	23	1,058.508	23	1,342.290	23	1,626.072	23	1,909.854	23	2,192.636	23	2,477.448
24	309.9688	493.781	25	780.401	996.913	24	1,061.345	24	1,347.126	24	1,628.910	24	1,912.692	24	2,196.474	24	2,480.394
25	312.8266	496.619	26	783.239	996.913	25	1,064.183	25	1,357.965	25	1,631.748	25	1,915.530	25	2,199.312	25	2,483.994
26	315.6745	499.457	27	786.077	996.913	26	1,067.021	26	1,350.803	26	1,634.585	26	1,918.368	26	2,202.150	26	2,485.932
27	218.5123	502.294	28	788.914	996.913	27	1,069.859	27	1,353.641	27	1,637.223	27	1,921.205	27	2,204.988	27	2,488.770
28	221.3501	505.132	29	791.752	996.913	28	1,072.697	28	1,356.479	28	1,640.261	28	1,924.043	28	2,207.825	28	2,491.608
29	224.1879	507.970	30	791.752	996.913	29	1,075.534	29	1,359.317	29	1,643.099	29	1,926.881	29	2,210.663	29	2,494.445
30	510.808	280	31	794.590	996.913	30	1,078.372	30	1,362.154	30	1,645.937	30	1,929.719	30	2,213.501	30	2,497.283
31	513.646	287	32	797.428	996.913	31	1,081.210	31	1,364.992	31	1,652.774	31	1,932.557	31	2,216.339	31	2,500.923
32	516.484	294	33	800.266	996.913	32	1,084.048	32	1,367.830	32	1,651.612	32	1,935.394	32	2,219.177	32	2,502.959
33	519.321	298	34	803.104	996.913	33	1,086.886	33	1,370.668	33	1,654.450	33	1,938.222	33	2,220.014	33	2,505.977
34	238.3770	522.189	35	805.941	996.913	34	1,089.724	34	1,373.506	34	1,657.288	34	1,941.070	34	2,224.852	34	2,508.654
35	241.2149	524.997	36	808.779	996.913	35	1,092.561	35	1,376.344	35	1,660.126	35	1,943.908	35	2,227.690	35	2,511.472
36	244.0527	527.835	37	811.617	996.913	36	1,095.399	36	1,379.181	36	1,662.964	36	1,946.746	36	2,230.528	36	2,514.310
37	246.8905	530.673	38	814.455	996.913	37	1,098.237	37	1,382.019	37	1,665.801	37	1,949.584	37	2,233.366	37	2,517.148
38	249.7283	533.510	39	817.293	996.913	38	1,101.075	38	1,384.857	38	1,668.639	38	1,952.421	38	2,236.204	38	2,519.966
39	252.5661	536.348	40	820.131	996.913	39	1,103.913	39	1,387.695	39	1,671.477	39	1,955.259	39	2,239.041	39	2,522.824
40	255.4040	539.186	41	822.968	996.913	40	1,106.751	40	1,390.533	40	1,674.315	40	1,958.097	40	2,241.879	40	2,525.661
41	258.2418	542.024	42	825.806	996.913	41	1,109.588	41	1,393.371	41	1,677.153	41	1,960.935	41	2,247.555	41	2,531.337
42	261.0796	544.862	43	828.644	996.913	42	1,112.426	42	1,396.208	42	1,687.828	42	1,962.828	42	2,250.393	42	2,534.175
43	263.9174	547.700	44	831.482	996.913	43	1,115.264	43	1,399.046	43	1,692.611	43	1,966.448	43	2,253.231	43	2,537.013
44	266.752	550.537	45	834.320	996.913	44	1,118.102	44	1,401.884	44	1,685.666	44	1,969.448	44	2,256.068	44	2,539.851
45	269.5931	553.375	46	837.157	996.913	45	1,120.940	45	1,404.722	45	1,688.504	45	1,972.286	45	2,259.633	45	2,542.471
46	272.4309	556.213	47	839.995	996.913	46	1,123.777	46	1,407.560	46	1,691.342	46	1,975.124	46	2,261.906	46	2,545.688
47	275.2687	559.051	48	842.833	996.913	47	1,126.615	47	1,410.397	47	1,694.180	47	1,977.962	47	2,264.744	47	2,552.526
48	288.1065	561.889	49	845.671	996.913	48	1,129.453	48	1,413.235	48	1,697.017	48	1,980.800	48	2,264.364	48	2,552.140
49	280.9444	564.727	50	848.509	996.913	49	1,132.291	49	1,416.073	49	1,699.835	49	1,983.637	49	2,267.420	49	2,551.202

MASS—AVOIRDUPOIS POUNDS TO KILOGRAMS

[Reduction factor: 1 avoirdupois pound = 0.4535924277 kilogram]

Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos	Pounds Kilos		
0 0.45359	100 45.35924	200 90.71849	300 136.07773	400 181.43697	500 226.79621	600 272.15546	700 317.51470	800 362.87394	900 408.23318				
1 0.45359	1 45.35924	2 91.12028	3 136.33132	4 181.80056	5 227.34981	6 272.69905	7 317.96829	8 362.32553	9 408.68678	1 409.1437	2 409.59396		
2 0.90718	2 46.66563	3 91.65567	4 92.0926	5 136.5891	6 182.34416	7 228.10340	8 273.51023	9 318.42168	1 363.78113	2 364.53772	3 410.04755		
3 1.36078	3 46.2002	4 137.43851	5 182.79775	6 137.89240	7 182.25134	8 228.61058	9 273.51699	1 318.87558	2 319.33907	3 364.88331	4 410.50115		
4 1.81437	4 47.17361	5 92.5286	6 138.34567	7 183.04935	8 229.60418	9 274.42342	1 317.96983	2 319.72266	3 365.1490	4 414.12989	5 416.95474		
5 2.26796	5 47.62270	6 92.98645	7 138.79282	8 184.15853	9 229.51777	1 228.61508	2 274.87701	3 320.23625	4 365.59550	5 411.86934	6 411.86192		
6 2.72155	6 48.08080	7 93.44004	8 139.53363	9 184.61212	1 229.97136	2 275.39360	3 320.68985	4 366.04909	5 366.30668	6 366.95627	7 395.0997		
7 3.17515	7 48.53439	8 94.37722	9 139.70647	1 230.42495	2 276.78120	3 321.14344	4 321.59703	5 366.95627	6 366.95627	7 395.0997	8 412.31552		
8 3.62878	8 48.98798	9 94.80082	1 140.16006	2 185.51930	3 230.87855	4 276.23779	5 321.59703	6 366.95627	7 366.95627	8 395.0997	9 395.0997		
9 4.08233	9 49.44157												
10 4.53592	110 49.89517	210 95.23441	310 140.65265	410 186.42649	510 231.33214	610 276.69138	710 322.03622	810 367.40987	910 412.76911				
11 4.98952	1 45.35924	2 95.70800	3 141.06725	4 186.85008	5 231.78573	6 277.14497	7 322.50422	8 367.86346	9 413.22270				
12 5.44311	2 50.80335	3 96.16159	4 141.52084	5 187.33367	6 232.33332	7 277.58957	8 322.95781	9 368.31705	1 413.67639	2 414.53348	3 414.53348		
13 5.89705	3 53.25934	4 96.61519	5 141.97443	6 187.78727	7 233.41651	8 278.50575	9 323.41140	1 368.77064	2 368.77064	3 414.53348	4 414.53348		
14 6.35029	4 51.70934	5 97.06878	6 142.42802	7 188.14651	8 233.60010	9 278.9534	1 323.80499	2 369.22244	3 369.22244	4 414.53348	5 415.03707		
15 6.80389	5 52.16313	6 97.52237	7 142.8816	8 188.60486	9 234.05369	1 234.42194	2 278.9534	3 324.18189	4 369.67783	5 370.13424	6 415.49366		
16 7.25748	6 52.61672	7 97.97596	8 143.33212	9 188.60445	1 234.50369	2 279.45659	3 324.25577	4 370.88501	5 371.49216	6 415.94426	7 416.39785		
17 7.71107	7 53.17631	8 98.42956	9 143.78880	1 189.14804	2 234.50729	3 279.86653	4 325.25577	5 371.49216	6 371.49216	7 416.39785	8 416.85144		
18 8.16466	8 53.52391	9 98.88315	1 144.24339	2 189.60163	3 234.36088	4 280.32020	5 326.13296	6 371.49216	7 371.49216	8 416.39785	9 416.85144		
19 8.61828	9 53.97530	9 99.33674	1 144.69598	2 190.05253	3 235.41447	4 280.73731	5 326.13296	6 371.49216	7 371.49216	8 416.39785	9 416.85144		
20 9.07185	120 54.43109	220 99.79033	320 145.14958	420 190.50882	520 235.86806	620 281.22731	720 326.56655	820 371.94579	920 417.30503				
21 9.52544	1 54.88848	2 100.24393	3 145.60317	4 190.92421	5 231.68090	6 281.80900	7 327.39338	8 372.39338	9 417.58683				
22 9.97903	2 55.33828	3 100.69752	4 146.05676	5 191.41606	6 236.32165	7 282.13449	8 327.49373	9 372.85557	1 418.21222	2 418.66581	3 418.66581		
23 10.43263	3 55.79187	4 101.15111	5 146.51635	6 191.85960	7 237.22884	8 282.52808	9 327.94733	1 373.30557	2 373.30557	3 418.11940	4 418.11940		
24 10.88622	4 56.24546	5 101.60470	6 146.36395	7 192.68213	8 237.66213	9 287.00924	1 373.76016	2 373.76016	3 417.32175	4 417.32175	5 419.57300		
25 11.33981	5 66.69095	6 102.05830	7 147.41754	8 193.77678	9 238.13602	1 283.49927	2 323.48866	3 328.85451	4 374.21975	5 375.66735	6 420.02659		
26 11.79340	6 57.15265	7 102.51189	8 147.73113	9 193.23037	1 284.04321	2 328.30810	3 329.76169	4 375.12094	5 375.12094	6 420.48018	7 420.93377		
27 12.24700	7 57.60624	8 103.49548	9 148.32427	1 193.63397	2 289.85650	3 329.21529	4 375.57553	5 376.02812	6 376.02812	7 420.93377	8 420.93377		
28 12.70050	8 58.05983	9 103.87267	1 194.23191	2 194.59113	3 239.30539	4 289.65680	5 329.30539	6 376.02812	7 376.02812	8 420.93377	9 420.93377		
29 13.15418	9 58.51342	9 103.87267	1 194.23191	2 194.59113	3 239.30539	4 289.65680	5 329.30539	6 376.02812	7 376.02812	8 420.93377	9 420.93377		
30 13.60777	130 58.96702	230 104.26262	330 149.68350	430 195.04474	530 240.45983	630 285.63232	730 331.12247	830 376.48171	930 421.84096				
31 14.06137	1 59.42051	2 105.77985	3 150.13909	4 195.49834	5 240.35758	6 286.21682	7 331.52767	8 376.93371	9 422.29455				
32 14.51496	2 59.87420	3 105.23344	4 150.5926	5 195.9193	6 241.31117	7 286.67041	8 331.02966	9 377.38900	1 422.74814	2 422.74814	3 423.20174	4 423.20174	
33 14.96855	3 60.32779	4 105.68704	5 151.04628	6 196.40552	7 241.76476	8 287.24011	9 332.48325	1 377.84249	2 377.84249	3 423.20174	4 423.20174		
34 15.42214	4 60.78139	5 106.14063	6 151.49987	7 196.88911	8 242.21836	9 287.57760	1 332.94684	2 378.29068	3 423.65553	4 423.65553	5 424.10892		
35 15.87573	5 61.23498	6 106.54922	7 151.50736	8 197.31271	9 247.61795	1 288.53043	2 333.84043	3 378.74668	4 424.56251	5 424.56251	6 424.56251		
36 16.32933	6 61.68837	7 107.04781	8 152.40736	9 198.76630	1 243.12554	2 288.48478	3 334.20762	4 379.65886	5 380.11045	6 425.16970	7 425.16970		
37 16.78292	7 62.14216	8 107.50141	9 152.86015	1 198.21989	2 243.75913	3 288.93838	4 334.29197	5 379.65886	6 380.11045	7 425.16970	8 425.16970		
38 17.23651	8 62.59576	9 107.95500	1 153.31424	2 198.67345	3 244.03273	4 290.31921	5 335.20480	6 380.56505	7 380.56505	8 425.93239	9 425.93239		
39 17.69010	9 63.04935	9 108.40859	1 153.16783	2 199.12708	3 244.48652	4 290.84556	5 335.20480	6 380.56505	7 380.56505	8 425.93239	9 425.93239		
40 18.14370	140 63.50294	240 108.86218	340 154.22443	440 199.58067	540 244.93991	640 290.29915	740 335.63840	840 381.01764	940 426.37668				
41 18.59729	1 63.95653	2 109.31578	3 155.12361	4 197.45750	5 245.39350	6 291.20527	7 331.11169	8 381.01723	9 426.33047				
42 19.05088	2 64.41012	3 109.69367	4 155.12361	5 197.45750	6 245.84710	7 291.20634	8 336.56558	9 381.92821	1 427.28407	2 427.28407	3 427.37676	4 428.19125	5 428.19125
43 19.50447	3 64.86372	4 110.22296	5 155.58220	6 199.9145	7 246.30693	8 291.65993	9 337.01917	1 427.37676	2 427.37676	3 428.83201	4 428.83201	5 428.83201	6 428.83201
44 19.95807	4 65.31731	5 110.67655	6 156.03380	7 201.35804	8 246.75428	9 291.13152	1 337.42775	2 382.83201	3 428.19125	4 428.19125	5 428.83201	6 428.83201	
45 20.41166	5 65.77090	6 111.18014	7 156.88939	8 201.81863	9 247.20787	1 292.56712	2 348.66147	3 383.79955	4 428.83201	5 428.83201	6 428.83201		
46 20.86525	6 66.22449	7 111.58374	8 156.94298	9 202.30222	1 247.66110	2 293.47430	3 338.83354	4 384.37979	5 428.83201	6 428.83201			
47 21.31884	7 66.67809	8 112.03733	9 157.39657	1 202.75582	2 248.11506	3 293.92789	4 339.28714	5 384.64338	6 428.50223	7 428.50223			
48 21.77244	8 67.31316	9 112.49092	1 157.85016	2 203.29491	3 248.56865	4 293.92789	5 339.28714	6 384.64338	7 428.50223	8 430.00562			
49 22.23603	9 67.58327	9 112.94451	1 158.30376	2 203.66330	3 249.22224	4 294.31449	5 339.74073	6 385.0997	7 430.45921	8 430.45921			

50	22.67962	150	68.03886	150	11659	450	204.11659	550	249.47584	650	294.83508	750	340.19432	850	385.53356	950	430.91281
1	23.13321	1	68.49246	1	113.39811	1	158.75735	1	204.37018	1	249.92943	1	295.28867	1	340.44791	1	386.00716
2	23.38981	2	68.94605	2	114.30529	2	160.51529	2	205.32378	2	250.38302	2	295.72226	2	341.10151	1	386.46672
3	24.04040	3	69.39658	3	114.55988	3	160.11813	3	205.47737	3	250.83670	3	296.16586	3	341.55510	3	386.91134
4	24.49339	4	69.85323	4	115.21248	4	160.57112	4	205.53046	4	251.29260	4	296.69495	4	342.00869	4	387.36793
5	25.14978	5	70.30683	5	115.66607	5	161.02531	5	206.38455	5	251.74380	4	297.10304	5	342.46228	4	387.12718
6	25.40118	6	70.76042	6	116.11966	6	161.47890	6	206.83815	6	252.19739	5	297.56663	6	342.91588	6	388.27512
7	25.85477	7	71.21401	7	161.92500	7	161.92500	7	207.29174	7	252.65098	7	298.01022	7	343.36947	7	388.72871
8	26.30567	8	71.65760	8	117.02685	8	162.36699	8	207.47533	8	253.10457	8	298.43882	8	343.80795	8	384.14516
9	26.76195	9	72.12120	9	117.88044	9	162.83968	9	208.1982	9	253.55817	9	298.91741	9	344.27665	9	389.63590
60	27.21535	160	72.57479	260	117.93403	360	163.29327	460	208.55252	560	254.01176	660	299.37100	760	344.73025	860	390.08949
1	26.66914	1	73.02838	2	73.48197	2	118.84122	2	164.20046	2	209.55970	2	254.91894	2	300.27819	2	345.63743
2	28.12273	3	73.95517	3	119.29881	3	164.63405	3	210.01329	3	255.37254	3	300.76178	3	346.99667	2	386.55929
3	28.56322	4	74.38916	4	119.74840	4	165.10764	4	210.46689	4	255.82613	4	301.15537	4	346.44461	4	387.26310
4	29.02992	5	74.84275	5	120.20319	5	165.56124	5	210.92048	5	256.27972	5	301.68905	5	346.99821	5	392.35745
5	29.48351	6	75.29634	6	120.65539	6	166.10483	6	211.37407	6	256.73331	6	302.56115	6	347.45180	6	392.11044
6	29.93710	7	75.74994	7	121.10918	7	166.46842	7	211.82766	7	257.18691	7	302.90539	7	347.17029	7	388.62388
7	30.39609	8	76.20353	8	122.66277	8	166.92201	8	212.28126	8	258.64050	8	303.99494	9	348.81258	9	389.17123
8	31.29788	9	76.65712	9	122.01636	9	167.37561	9	212.73426	9	258.09409	9	303.45333	9	349.53106	9	389.17123
70	31.75147	170	77.11071	270	122.46996	370	167.82920	470	213.88644	570	258.54768	670	303.90683	770	349.26617	870	384.62541
1	32.20506	1	77.56431	1	122.22355	1	168.28279	1	213.64233	1	259.00128	1	304.30552	1	349.71976	1	395.07900
2	32.65865	2	78.01790	2	123.37714	2	168.76388	2	214.09563	2	259.45487	2	304.81411	2	349.73355	2	395.19843
3	33.11225	3	78.47149	3	123.83073	3	169.18998	3	214.54922	3	259.90845	3	305.26770	3	350.62695	3	395.98619
4	33.56384	4	78.92509	4	124.28433	4	169.64357	4	215.02851	4	260.36205	4	305.72130	4	351.08054	4	395.43978
5	34.01943	5	79.37867	5	124.73972	5	170.09716	5	215.45640	5	260.81565	5	306.17489	5	351.53415	5	396.89327
6	34.57302	6	79.82827	6	125.19151	6	170.55075	6	215.91000	6	261.26924	6	306.6848	6	351.98772	6	397.34997
7	35.26662	7	80.25586	7	125.45157	7	171.45155	7	216.36359	7	262.72826	7	307.55567	8	352.44322	7	397.70621
8	35.38021	8	80.73945	8	126.98169	8	171.45718	8	216.81718	8	262.17642	8	307.55567	8	352.89491	8	398.25115
9	35.38380	9	81.19304	9	126.55229	9	171.91153	9	217.20777	9	262.63002	9	307.98926	9	353.34850	9	398.70774
80	36.28739	180	81.66664	280	127.00588	380	172.36512	480	217.27437	580	263.03861	680	308.44285	780	354.80209	880	399.16134
1	36.74099	1	81.10023	1	127.45949	1	172.81871	1	218.53155	1	263.53720	1	308.88644	1	354.25569	1	399.16134
2	37.64915	2	82.55382	2	127.91306	2	173.27231	2	218.53155	2	263.90797	2	309.33004	2	354.70928	2	399.06552
3	38.01716	3	83.46101	3	128.32025	3	174.17950	3	219.88574	3	264.44349	3	309.80353	3	355.16287	3	399.58211
4	38.46176	4	83.46101	4	128.32025	4	174.17950	4	219.88574	4	264.89798	4	310.25722	4	355.01646	4	399.97571
5	38.55336	5	83.91460	5	129.27384	5	174.63308	5	219.99233	5	265.35157	5	310.71081	5	356.07006	5	401.42320
6	39.06959	6	84.36819	6	129.72743	6	175.08668	6	220.44592	6	265.80516	6	311.16441	6	356.52265	6	401.88289
7	39.46254	7	84.82178	7	130.81803	7	175.54027	7	220.89951	7	266.25876	7	312.61800	7	356.97724	7	402.33648
8	39.91613	8	85.27538	8	130.53462	8	175.98386	8	221.35310	8	266.71235	8	312.07159	8	357.33083	8	402.79008
9	40.36973	9	85.85797	9	131.08621	9	176.44745	9	221.80670	9	267.16594	9	312.55218	9	357.88443	9	403.24367
90	40.82332	190	86.18256	290	131.54180	390	176.90105	490	222.26029	590	267.61953	690	312.9878	790	358.33802	890	403.69726
1	41.27691	1	86.63615	2	87.08975	2	132.14489	2	177.80823	2	223.16747	2	268.07312	2	313.42337	1	404.10185
2	41.73050	2	87.08975	3	132.90258	3	178.29182	3	223.52107	3	268.98031	3	314.33955	3	345.05804	2	404.60445
3	42.18410	3	87.54334	4	87.99693	4	133.55617	4	178.71542	4	224.07466	4	269.43390	4	360.15239	4	405.51163
4	42.63769	4	88.45052	5	133.80977	5	179.16901	5	224.32825	5	269.88749	5	315.24674	5	360.69596	5	405.95822
5	43.09128	6	88.45052	6	134.26336	6	179.62260	6	224.98184	6	270.34109	6	315.70033	6	361.05957	6	406.41882
6	43.54487	7	88.90412	7	134.71695	7	180.07619	7	225.43544	7	270.75468	7	316.15392	7	361.51316	7	406.87741
7	43.99847	8	89.33771	8	135.17054	8	180.52979	8	225.88903	8	271.24827	8	316.60751	8	361.96676	8	407.32500
8	44.45206	8	89.81130	9	135.62114	9	180.98338	9	226.34262	9	271.70186	9	317.00111	9	362.42035	9	407.7759
9	44.90565	9	90.26489	9	135.62114	9	180.98338	9	226.34262	9	271.70186	9	317.00111	9	362.42035	9	407.7759

MASS—KILOGRAMS TO AVOIRDUPOIS POUNDS

[Reduction factor: 1 kilogram = 2.204622341 avoirdupois pounds]

Kilos	Pounds	Kilos	Pounds	Kilos	Pounds										
0	0	100	220.4622	200	440.9245	300	661.3867	400	881.8489	500	1,102.3112	600	1,322.7234	700	1,543.2356
1	2.2046	1	222.6669	1	443.1291	1	663.3913	1	884.0336	1	1,104.5158	1	1,324.9780	1	1,545.4403
2	4.4092	2	224.8715	2	445.4937	2	665.7939	2	886.2582	2	1,106.7204	2	1,327.1825	2	1,547.6449
3	6.6139	3	227.0761	3	447.5583	3	668.0036	3	888.4628	3	1,108.9220	3	1,329.3873	3	1,549.8955
4	8.8185	4	229.2807	4	449.7430	4	670.2052	4	890.6674	4	1,111.1297	4	1,331.3919	4	1,552.0541
5	11.0231	5	231.4853	5	451.9476	5	672.4038	5	892.8720	5	1,113.3343	5	1,333.7965	5	1,554.2588
6	13.2277	6	233.6900	6	454.1522	6	674.6144	6	895.0677	6	1,115.5389	6	1,336.0011	6	1,556.4634
7	15.4324	7	235.8946	7	456.3568	7	676.8151	7	897.2813	7	1,117.7435	7	1,338.2058	7	1,558.6680
8	17.6370	8	238.0992	8	458.5614	8	679.0237	8	899.4859	8	1,119.9481	8	1,340.4014	8	1,560.8726
9	19.8416	9	240.3038	9	460.7661	9	681.2283	9	901.6905	9	1,122.1528	9	1,342.6150	9	1,563.0722
10	22.0462	10	242.5085	210	462.1975	310	683.4329	410	903.8952	510	1,124.3574	610	1,344.8196	710	1,565.2819
11	24.2508	11	244.7131	1	685.6375	1	696.0998	1	906.1562	1	1,126.5620	1	1,347.0243	1	1,567.4965
12	26.4555	2	246.9177	2	687.8122	2	698.3044	2	908.2666	2	1,128.7666	2	1,349.2289	2	1,569.6911
13	28.6601	3	249.1223	3	689.5846	3	690.0463	3	909.5090	3	1,130.9713	3	1,351.3355	3	1,571.8957
14	30.8647	4	251.3269	4	471.7892	4	692.2514	4	912.7136	4	1,133.1759	4	1,353.6381	4	1,574.1004
15	33.0693	5	253.5316	5	473.9938	5	694.4560	5	914.9183	5	1,135.3805	5	1,355.8427	5	1,576.3050
16	35.2740	6	255.7362	6	476.1984	6	696.6567	6	915.1229	6	1,137.5851	6	1,358.0474	6	1,578.5096
17	37.4786	7	257.9408	7	478.4030	7	698.8653	7	919.3275	7	1,139.7898	7	1,360.2520	7	1,580.7142
18	39.6832	8	260.1454	8	480.6077	8	703.0659	9	923.7368	9	1,141.9940	9	1,362.5656	8	1,582.9188
19	41.8878	9	262.3501	9	482.8123	9	703.2745	9	923.7368	9	1,144.1990	9	1,364.6612	9	1,585.1235
20	44.0924	120	264.5547	220	485.0169	320	705.4791	420	925.9414	520	1,146.4036	620	1,366.8659	720	1,587.3281
21	46.2971	1	266.7593	1	487.2215	1	707.6838	1	928.1660	1	1,148.6082	1	1,369.0705	1	1,589.9949
22	48.4917	2	268.9639	2	499.4562	2	709.8834	2	930.3506	2	1,150.8129	2	1,371.2751	2	1,591.7273
23	50.6963	3	271.1685	3	501.6918	3	712.0930	3	932.5553	3	1,153.0175	3	1,373.4797	3	1,593.9220
24	52.8910	4	273.3721	4	503.8354	4	714.2976	4	934.7939	4	1,155.2221	4	1,375.6843	4	1,595.1666
25	55.1156	5	275.5778	5	496.0420	5	716.5023	5	936.9645	5	1,157.4267	5	1,377.8800	5	1,598.3512
26	57.3202	6	277.7824	6	498.2446	6	718.7069	6	939.1691	6	1,161.6314	6	1,380.0936	6	1,600.5558
27	59.5248	7	279.9870	7	500.4493	7	941.3737	7	941.8360	7	1,161.8360	7	1,382.9828	7	1,602.7004
28	61.7294	8	282.1917	8	502.6339	8	723.1151	8	943.5864	8	1,164.0406	8	1,384.0298	8	1,604.9051
29	63.9340	9	284.3963	9	504.8565	9	723.3208	9	945.8780	9	1,166.2452	9	1,386.0705	9	1,607.1697
30	66.1383	130	286.6009	230	507.0631	330	727.5254	430	947.9876	630	1,168.4498	630	1,388.9121	730	1,609.3743
31	68.3433	1	288.8055	1	509.2578	1	729.7340	1	950.1922	1	1,170.6545	1	1,391.167	1	1,611.5789
32	70.5479	2	291.0101	2	511.4724	2	731.9346	2	952.3969	2	1,172.8591	2	1,392.3213	2	1,613.7336
33	72.7525	3	293.2148	3	513.6770	3	734.1392	3	954.6015	3	1,175.0637	3	1,395.5259	3	1,615.9882
34	74.9572	4	295.4194	4	515.8816	4	736.3439	4	956.8061	4	1,177.2683	4	1,397.7306	4	1,618.1928
35	77.1618	5	297.6240	5	518.0863	5	738.5485	5	959.0107	5	1,181.4730	5	1,402.3952	5	1,620.3974
36	79.3664	6	299.8286	6	520.2909	6	740.7531	6	961.2153	6	1,183.6776	6	1,402.3938	6	1,622.6020
37	81.5710	7	302.0333	7	522.4955	7	742.9577	7	963.4200	7	1,185.8822	7	1,404.3441	7	1,624.8067
38	83.7756	8	304.2379	8	524.7001	8	745.1624	8	965.6346	8	1,188.0866	8	1,406.4911	8	1,627.0113
39	85.9803	9	306.4425	9	526.9047	9	747.3670	9	967.8292	9	1,188.2914	9	1,408.7537	9	1,629.2159
40	88.1849	140	308.6471	240	529.1094	340	749.5716	440	970.0338	640	1,190.4961	640	1,410.9583	740	1,631.4205
41	90.3895	1	310.8518	1	532.5186	2	753.9808	2	974.4431	2	1,192.7007	2	1,415.3675	1	1,632.6525
42	92.5949	2	313.0564	2	535.7232	3	756.1855	3	976.6477	3	1,197.1099	3	1,417.5272	2	1,635.8298
43	94.7988	3	315.2610	4	537.9279	4	758.3901	4	982.8523	4	1,199.3146	4	1,419.7658	3	1,638.0344
44	97.0034	4	317.4656	5	540.1325	5	760.5947	5	981.0569	5	1,201.5192	5	1,421.8114	4	1,640.2390
45	99.2086	6	321.8749	6	544.3371	6	762.7993	6	983.2616	6	1,203.7238	6	1,424.1860	6	1,645.6483
46	101.4136	7	324.5417	7	544.5417	7	765.0040	8	985.4662	7	1,205.9284	7	1,426.3907	7	1,646.8229
47	103.6173	8	326.2841	8	546.7463	8	767.2086	8	987.6708	8	1,208.1330	9	1,428.5933	8	1,649.0575
48	105.8219	9	328.4887	9	548.9510	9	769.4132	9	989.8754	9	1,210.3377	9	1,430.7959	9	1,651.2621

50	110,2311	150	330,6934	250	551,1556	250	771,6178	450	992,0801	550	1,212,5423	550	1,433,0045	750	1,653,4668	850	1,873,9290	950	2,094,3912
1	112,4357	1	335,8880	2	553,3602	2	773,8224	1	994,2847	1	1,214,7469	1	1,435,2931	1	1,653,6714	1	1,873,1336	1	2,096,5958
2	114,6104	2	335,1026	2	553,3648	2	776,8224	2	996,4893	2	1,216,9515	2	1,437,4138	2	1,657,8760	2	1,878,3382	2	2,098,8005
3	116,8550	3	337,3072	3	557,7695	3	778,8224	3	996,6939	3	1,216,1562	3	1,437,4138	3	1,657,8760	3	1,880,5129	3	2,101,0051
4	119,0496	4	339,5118	4	559,9741	4	780,4363	4	1,000,9885	4	1,221,3668	4	1,441,8230	4	1,662,2852	4	1,882,7475	4	2,103,2097
5	121,2542	5	341,7165	5	562,1787	5	782,6409	5	1,003,1032	5	1,223,5654	5	1,444,0276	5	1,664,4899	5	1,884,9521	5	2,105,4143
6	123,4589	6	343,9211	6	564,3833	6	784,8456	6	1,005,3078	6	1,225,7700	6	1,444,2223	6	1,666,6915	6	1,887,1567	6	2,107,6190
7	125,6635	7	346,1257	7	566,3879	7	787,0502	7	1,007,7146	7	1,227,9716	7	1,448,4369	7	1,668,8991	7	1,889,3613	7	2,109,0236
8	127,8681	8	348,3303	8	568,7926	8	791,4594	8	1,009,7170	8	1,229,1793	8	1,450,6616	8	1,671,1037	8	1,891,5660	8	2,112,0282
9	130,0727	9	350,5350	9	570,9972	9	791,4594	9	1,011,9217	9	1,232,3889	9	1,452,8861	9	1,673,3084	9	1,893,7706	9	2,114,2328
60	132,2773	160	352,7396	260	573,2018	360	793,6640	460	1,014,1263	560	1,234,5885	660	1,455,0597	760	1,675,3130	860	1,895,9752	960	2,116,4374
1	134,4820	1	354,9442	1	575,4064	1	795,8687	1	1,016,3309	1	1,236,7931	1	1,457,2554	1	1,677,2175	1	1,898,1798	1	2,118,6442
2	136,8866	2	357,1488	2	577,6111	2	798,9583	2	1,018,5555	2	1,238,9778	2	1,459,4000	2	1,679,3222	2	1,900,3845	2	2,120,8467
3	138,8912	3	359,5354	3	579,8157	3	800,2779	3	1,020,7401	3	1,241,2024	3	1,461,6646	3	1,682,2268	3	1,902,5891	3	2,123,0513
4	141,0958	4	361,5581	4	582,0203	4	802,4825	4	1,022,9448	4	1,243,4070	4	1,463,8892	4	1,684,3315	4	1,904,9096	4	2,125,5539
5	143,3005	5	363,7627	5	584,2249	5	804,6872	5	1,025,1494	5	1,245,6116	5	1,466,0739	5	1,686,5361	5	1,906,9983	5	2,127,4606
6	145,5051	6	365,9673	6	586,4295	6	806,8918	6	1,027,3540	6	1,247,8162	6	1,468,2785	6	1,688,7407	6	1,909,2029	6	2,129,6652
7	147,7097	7	368,1719	7	588,6342	7	809,0964	7	1,029,5586	7	1,250,9299	7	1,470,4831	7	1,690,9453	7	1,911,4976	7	2,131,8688
8	149,9143	8	370,3766	8	590,8888	8	811,3010	8	1,031,7633	8	1,252,2235	8	1,472,6677	8	1,693,5050	8	1,913,6122	8	2,134,0744
9	152,1189	9	372,5812	9	593,0434	9	810,5056	9	1,033,9679	9	1,254,4301	9	1,474,8823	9	1,695,5546	9	1,915,8168	9	2,136,2790
70	154,3236	170	374,7858	270	595,2480	370	815,7103	470	1,036,1725	570	1,256,6347	670	1,477,0597	770	1,697,5529	870	1,918,0214	970	2,138,4837
1	156,3282	1	376,9904	1	597,4527	1	817,9149	1	1,038,3771	1	1,258,8394	1	1,479,3016	1	1,699,7638	1	1,920,2261	1	2,140,6883
2	158,7328	2	379,1950	2	599,6573	2	820,1195	2	1,040,5817	2	1,261,0440	2	1,481,5062	2	1,692,4337	2	1,922,6829	2	2,142,8929
3	160,9374	3	381,3997	3	601,8619	3	822,3241	3	1,042,7864	3	1,263,2486	3	1,483,7308	3	1,694,4337	3	1,924,6353	3	2,145,0975
4	163,1947	4	383,6043	4	604,0665	4	824,5288	4	1,044,9910	4	1,265,4532	4	1,485,9158	4	1,696,3777	4	1,926,8339	4	2,147,2022
5	165,3467	5	385,8089	5	608,2711	5	826,7334	5	1,047,1956	5	1,267,6578	5	1,488,1201	5	1,698,5823	5	1,929,0445	5	2,149,5068
6	167,5513	6	388,0135	6	608,4758	6	828,9380	6	1,049,4002	6	1,269,8625	6	1,490,3347	6	1,710,7869	6	1,931,2492	6	2,151,7114
7	169,7559	7	390,2182	7	610,6804	7	831,1426	7	1,051,5049	7	1,272,0571	7	1,492,5923	7	1,712,9916	7	1,933,4538	7	2,153,9160
8	171,9605	8	392,4228	8	612,8850	8	833,3472	8	1,053,8093	8	1,274,2717	8	1,494,7339	8	1,715,9916	8	1,935,5584	8	2,156,1204
9	174,1652	9	394,6274	9	615,0896	9	835,5519	9	1,055,1041	9	1,276,4763	9	1,496,9886	9	1,717,4008	9	1,937,8650	9	2,158,3253
80	176,3698	180	396,8320	280	617,2943	380	837,7565	480	1,058,2187	580	1,278,6810	680	1,499,1432	780	1,719,6054	880	1,940,0677	980	2,160,5299
1	178,5744	1	399,0366	1	619,4989	1	837,9611	1	1,060,3233	1	1,280,8856	1	1,503,5224	1	1,721,8100	1	1,944,2723	1	2,162,7345
2	180,7790	2	401,2413	2	621,7035	2	842,1657	2	1,062,3280	2	1,283,0902	2	1,503,5224	2	1,724,0147	2	1,944,4766	2	2,164,9391
3	182,9837	3	403,4459	3	623,9081	3	844,3704	3	1,064,8326	3	1,285,2948	3	1,505,7571	3	1,726,2193	3	1,946,8815	3	2,167,1438
4	185,1883	4	405,6505	4	626,1127	4	846,5750	4	1,067,0372	4	1,287,4994	4	1,507,9671	4	1,728,1239	4	1,948,8861	4	2,169,3484
5	187,3929	5	407,8551	5	628,3174	5	848,7796	5	1,068,2418	5	1,289,7041	5	1,510,1663	5	1,730,6285	5	1,951,0908	5	2,171,5530
6	189,5975	6	410,0598	6	630,3220	6	853,1888	6	1,071,4465	6	1,291,9087	6	1,512,3709	6	1,731,6332	6	1,953,2954	6	2,173,7576
7	191,8021	7	412,2644	7	632,7266	7	853,1888	7	1,073,6511	7	1,294,1133	7	1,514,5755	7	1,735,0378	7	1,955,5000	7	2,175,9623
8	194,0068	8	414,4690	8	634,3312	8	855,3935	8	1,075,8657	8	1,296,3179	8	1,516,7802	8	1,737,2424	8	1,957,7046	8	2,178,1669
9	196,2114	9	416,6736	9	637,1359	9	857,5981	9	1,078,0603	9	1,298,5226	9	1,518,9848	9	1,736,1470	9	1,959,9093	9	2,180,3715
90	198,4160	190	418,8782	290	639,3405	390	859,8027	490	1,080,2649	590	1,300,7272	690	1,521,1894	790	1,741,6516	890	1,962,1139	990	2,182,5761
1	200,6106	1	421,0829	1	641,3451	1	862,0073	1	1,082,4696	1	1,302,9318	1	1,523,3940	1	1,743,5563	1	1,964,3185	1	2,184,7807
2	202,8253	2	423,2875	2	643,7497	2	864,2120	2	1,084,6742	2	1,305,1364	2	1,525,5847	2	1,746,6609	2	1,966,5231	2	2,186,9834
3	205,0299	3	425,4921	3	645,5453	3	866,4166	3	1,086,7788	3	1,307,3410	3	1,527,8033	3	1,748,2655	3	1,968,7278	3	2,189,1900
4	207,2345	4	427,6967	4	648,1590	4	868,6212	4	1,089,0834	4	1,309,5457	4	1,530,0079	4	1,750,4701	4	1,970,9324	4	2,191,3946
5	209,4391	5	429,9014	5	650,3636	5	870,8258	5	1,091,2881	5	1,311,7603	5	1,532,2125	5	1,752,6748	5	1,973,1370	5	2,193,5982
6	211,6437	6	432,1060	6	652,5682	6	873,0304	6	1,093,4927	6	1,313,9549	6	1,534,4171	6	1,754,6794	6	1,975,3416	6	2,195,8039
7	213,8484	7	434,3106	7	654,7728	7	875,2551	7	1,095,6973	7	1,316,1595	7	1,536,6218	7	1,757,0840	7	1,978,1985	7	2,198,0985
8	216,0530	8	436,5152	8	656,9757	8	877,4397	8	1,097,9019	8	1,318,3642	8	1,538,8264	8	1,759,2886	8	1,979,5709	8	2,200,2131
9	218,2576	9	438,7198	9	659,1821	9	879,6443	9	1,100,1065	9	1,320,5688	9	1,541,0310	9	1,761,4933	9	1,981,9555	9	2,202,4177

10. STATUS OF INTERNATIONAL METRIC SYSTEM IN THE UNITED STATES

10.1. CONSTITUTIONAL AUTHORITY TO FIX STANDARDS

"The Congress shall have power to * * * fix the standard of weights and measures." (Constitution of the United States, Art. 1, sec. 8, par. 5.)

10.2. METRIC SYSTEM LEGALIZED

"It shall be lawful throughout the United States of America to employ the weights and measures of the metric system, * * *." (Revised Statutes of the United States, sec. 3569.)

10.3. METRIC STANDARDS ADOPTED AS FUNDAMENTAL

"* * * the office of weights and measures * * * will in the future regard the international prototype meter and kilogram as fundamental standards, and the customary units, the yard and the pound, will be derived therefrom in accordance with the act of July 28, 1866." (Order approved by the Secretary of the Treasury, April 5, 1893.)

10.4. METRIC BALANCES FURNISHED CERTAIN POST OFFICES

"The Postmaster General shall furnish to the post offices exchanging mails with foreign countries, and to such other offices as he may deem expedient, postal balances denominated in grams of the metric system, fifteen grams of which shall be the equivalent, for postal purposes, of one-half ounce avoirdupois, and so on in progression." (Revised Statutes of the United States, sec. 3880.)

10.5. METRIC WEIGHTS USED FOR CERTAIN COINS

"* * * the weight of the half-dollar shall be twelve grams and one-half of a gram; the quarter-dollar and the dime shall be, respectively, one-half and one-fifth of the weight of said half-dollar." (Revised Statutes of the United States, sec. 3513.)

10.6. CONGRESS PROVIDES METRIC STANDARDS FOR THE STATES OF THE UNION, LAND-GRANT AGRICULTURAL COLLEGES, AND THE SMITHSONIAN INSTITUTION

"Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, authorized and directed to furnish to each State, to be delivered to the governor thereof, one set of the standard weights and measures of the metric system for the use of the States, respectively." (Joint resolution of Congress approved July 27, 1866.)

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, directed to cause a complete set of all the weights and measures adopted as standards to be delivered to the governor of each State in the Union, for the use of agricultural colleges in the States, respectively, which have received a grant of lands from the United States, and also one set of the same for the use of the Smithsonian Institution: * * *." (Joint resolution of Congress, approved March 3, 1881.)

10.7. UNITED STATES JOINS IN ESTABLISHING INTERNATIONAL BUREAU OF WEIGHTS AND MEASURES

"The high contracting parties engage to establish and maintain, at their common expense, a scientific and permanent international bureau¹³ of weights and measures, the location of which shall be at Paris." (Extract from convention of 1875, signed for the United States by the United States ambassador to France.)

¹³ This bureau has the custody of the international standards of the metric system, to which all metric prototypes of the world are referred for verification. It was established and is maintained jointly by various governments.

10.8. CONGRESS ADOPTS THE METRIC UNITS FOR ELECTRICAL MEASURES

It was enacted by the Congress in 1894 that the "international" electrical units should be the legal units of electrical measure in the United States. These units were based on the centimeter-gram-second electromagnetic system of electrical units, but for practical convenience were defined in terms of the electrical properties of silver and of mercury. In 1950 the Congress enacted Public Law 617—81st Congress (Chap. 484 2nd Session) which redefines the units directly in terms of the centimeter-gram-second electromagnetic system of units and repeals the Act of 1894 (Public Law No. 105). Public Law 617 also defines the photometric units, candle and lumen, in terms of the light from one square centimeter of a perfect radiator at the temperature of freezing platinum.

10.9. METRIC CARAT ADOPTED AS UNIT OF WEIGHT FOR DIAMONDS AND OTHER PRECIOUS STONES

"Beginning July 1, 1913, the Bureau of Standards will recognize the international metric carat of 200 milligrams as the unit of weight for diamonds and other precious stones and will use this unit for the purposes of certification of all carat weights submitted to the bureau for test." (National Bureau of Standards, Circular C43, issued November 1, 1913.)

"On and after July 1, 1913, the unit of weight for imported diamonds, pearls, and other precious stones will be the metric carat of 200 milligrams.

"Collectors at ports now equipped with scales for weighing precious stones will make requisition for a new set of weights based upon such carat." (Treasury Department order, June 17, 1913, to collectors and other officers of the customs.)

10.10. METRIC SYSTEM OPTIONAL IN PUERTO RICO

"SECTION 1.—That the metric system of weights and measures and the imperial system customarily used in the United States, insofar as the same are described by this Act, are hereby recognized and established in Porto Rico for use in all industrial, commercial, or agricultural transactions, * * *."

(Act No. 135, approved, August 18, 1913; last amended, 1936.)

10.11. RELATION BETWEEN INCHES AND MILLIMETERS ADOPTED BY AMERICAN STANDARDS ASSOCIATION

For industrial purposes a simple relation between the inch and the millimeter has been adopted by the American Standards Association (ASA B48.1-1933), and by similar organizations in 15 other countries. This relation is

$$\begin{aligned} 1 \text{ inch} &= 25.4 \text{ millimeters (exactly)} \\ \text{from which, } 1 \text{ yard} &= 0.9144 \text{ meter (exactly).} \end{aligned}$$

The adoption of this relation by industry, for use in making conversions between inches and millimeters, has no effect upon the legal definition of the yard or of the meter.

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