

Units of Weight and Measure

(United States Customary and Metric)

Definitions and Tables of Equivalents



United States Department of Commerce

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National Bureau of Standards Miscellaneous Publication 214

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Units of Weight and Measure

(United States Customary and Metric)

Definitions and Tables of Equivalents

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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

"meter" for length.

"gram" for weight or mass.

"liter" for capacity.

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 Mesures 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 B48.1-1933), 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 μ)=0.000 000 001 meter=0.001 micron.
 1 angstrom ($\text{\AA}$) $\left\{ \begin{array}{l} =0.000\ 000\ 1\ \text{millimeter.}^7 \\ =.000\ 1\ \text{micron.} \\ =.1\ \text{millimicron.} \end{array} \right.$
 1 statute mile $\left\{ \begin{array}{l} =8\ \text{furlongs}=320\ \text{rods.} \\ =1\ 760\ \text{yards}=5\ 280\ \text{feet.} \end{array} \right.$
 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= $\frac{1}{72}$ 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 $\left. \begin{array}{l} 1\ \text{sea mile} \\ 1\ \text{geographical mile} \end{array} \right\} =1\ 853.248\ \text{meters}=6\ 080.20\ \text{feet.}^8$
 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) $\left\{ \begin{array}{l} =640\ \text{acres}=102\ 400\ \text{square rods.} \\ =3\ 097\ 600\ \text{square yards}=27\ 878\ 400\ \text{square feet.} \end{array} \right.$
 1 acre (acre)=10 square chains $\left\{ \begin{array}{l} =160\ \text{square rods}=4\ 840\ \text{square yards.} \\ =43\ 560\ \text{square feet.} \end{array} \right.$
 1 square chain (ch^2) $\left\{ \begin{array}{l} =16\ \text{square rods}=484\ \text{square yards}=4\ 356\ \text{square feet.} \\ =10\ 000\ \text{square links.} \end{array} \right.$
 1 square link (li^2) $\left\{ \begin{array}{l} =0.000\ 1\ \text{square chain}=0.048\ 4\ \text{square yard.} \\ =0.435\ 6\ \text{square foot}=62.726\ 4\ \text{square inches.} \end{array} \right.$
 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)= $\frac{1}{1296}$ square yard= $\frac{1}{144}$ 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 (km³)=1 000 000 000 cubic meters.
- 1 cubic hectometer (hm³)=1 000 000 cubic meters.
- 1 cubic dekameter (dkm³)=1 000 cubic meters.
- 1 stere (s)=1 cubic meter.
- 1 cubic decimeter (dm³)=0.001 cubic meter.
- 1 cubic centimeter (cm³)=0.000 001 cubic meter=0.001 cubic decimeter.
- 1 cubic millimeter (mm³)=0.000 000 001 cubic meter=0.001 cubic centimeter.
- 1 cubic foot (ft³)= $\frac{1}{27}$ cubic yard.
- 1 cubic inch (in.³)= $\frac{1}{466\ 56}$ cubic yard= $\frac{1}{1728}$ 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= $\frac{1}{80}$ fluid ounce.
- 1 peck (pk)= $\frac{1}{4}$ bushel=537.605 cubic inches.
- 1 dry quart (dry qt)= $\frac{1}{32}$ bushel= $\frac{1}{8}$ peck=67.200 625 cubic inches.
- 1 dry pint (dry pt)= $\frac{1}{64}$ 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 = $\frac{1}{5760}$ troy pound.
- 1 apothecaries pound (lb ap) = 1 troy pound = $\frac{5760}{7000}$ avoirdupois pound.
- 1 apothecaries or troy ounce (oz ap or $\mathfrak{z}$, oz t) = $\frac{1}{12}$ troy pound = $\frac{480}{7000}$ avoirdupois pound = 480 grains.
- 1 apothecaries dram (dr ap or $\mathfrak{z}$) = $\frac{1}{6}$ 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 $\mathfrak{S}$) = $\frac{1}{3}$ 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, Å 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 ℥
angstrom	Å	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	fbm	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 ℥
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	dag	milligram	mg	stere	σ
dekaliter	dkl	milliliter	ml	ton	ton
dekameter	dkm	millimeter	mm	ton, metric	t
dekastere	dks	millimicron	mμ	troy	t
dram	dr	minim	min or ℥	yard	yd
dram, apothecaries	dr ap or ℥	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	0.0001
1 square foot =	144	2.295 684	1	0.111 111 1	0.003 673 09	0.000 229 568
1 square yard =	1296	20.6612	9	1	0.033 057 85	0.002 066 12
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	0.0001	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 (grain)	Grams (g)	Apothe- caries drams (dr ap or ʒ)	Grams (g)	Troy ounces (oz t)	Grams (g)	Avoird- upois ounces (oz avdp)	Grams (g)	Avoird- upois 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 = 225.796		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

1/2's	1/4's	8ths	16ths	32ds	64ths	Milli- meters	Decimals of an inch	Inch	1/2's	1/4's	8ths	16ths	32ds	64ths	Milli- meters	Decimals of an inch
					1	= 0.397	0.015625							33	=13.097	0.515625
					2	= .794	.03125							34	=13.494	.53125
					3	= 1.191	.046875							35	=13.891	.546875
			1	2	4	= 1.588	.0625					9	18	36	=14.288	.5625
					5	= 1.984	.078125							37	=14.684	.578125
					6	= 2.381	.09375						19	38	=15.081	.59375
					7	= 2.778	.109375							39	=15.478	.609375
		1	2	4	8	= 3.175	.1250				5	10	20	40	=15.875	.625
					9	= 3.572	.140625							41	=16.272	.640625
				5	10	= 3.969	.15625						21	42	=16.669	.65625
					11	= 4.366	.171875							43	=17.066	.671875
			3	6	12	= 4.763	.1875					11	22	44	=17.463	.6875
					13	= 5.159	.203125							45	=17.859	.703125
					14	= 5.556	.21875						23	46	=18.256	.71875
					15	= 5.953	.234375							47	=18.653	.734375
	1	2	4	8	16	= 6.350	.2500			3	6	12	24	48	=19.050	.75
					17	= 6.747	.265625							49	=19.447	.765625
					18	= 7.144	.28125						25	50	=19.844	.78125
					19	= 7.541	.296875							51	=20.241	.796875
			5	10	20	= 7.938	.3125					13	26	52	=20.638	.8125
					21	= 8.334	.328125							53	=21.034	.828125
					22	= 8.731	.34375						27	54	=21.431	.84375
					23	= 9.128	.359375							55	=21.828	.859375
		3	6	12	24	= 9.525	.3750				7	14	28	56	=22.225	.875
					25	= 9.922	.390625							57	=22.622	.890625
				13	26	=10.319	.40625						29	58	=23.019	.90625
					27	=10.716	.421875							59	=23.416	.921875
			7	14	28	=11.113	.4375					15	30	60	=23.813	.9375
					29	=11.509	.453125							61	=24.209	.953125
					30	=11.906	.46875							62	=24.606	.96875
				15	31	=12.303	.484375						31	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

Hun- dredths of an inch	0	1	2	3	4	5	6	7	8	9
	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

Milli- meters	0	1	2	3	4	5	6	7	8	9
	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				
1	1.0007	1.8532	0.9993	1	1.8520	0.5396		0.5400
2	2.0013	3.7065	1.9987	2	3.7040	1.0792		1.0790
3	3.0020	5.5597	2.9980	3	5.5560	1.6188		1.6189
4	4.0027	7.4130	3.9973	4	7.4108	2.1584		2.1598
5	5.0034	9.2662	4.9966	5	9.2600	2.6980		2.6998
6	6.0040	11.1195	5.9960	6	11.1120	3.2376		3.2397
7	7.0047	12.9727	6.9953	7	12.9640	3.7772		3.7797
8	8.0054	14.8260	7.9946	8	14.8160	4.3167		4.3197
9	9.0061	16.6792	8.9939	9	16.6680	4.8563		4.8596
10	10.0067	18.5325	9.9933	10	18.5200	5.3959		5.3996
1	11.0074	20.3857	10.9926	1	20.3720	5.9355		5.9395
2	12.0081	22.2390	11.9919	2	22.2240	6.4751		6.4795
3	13.0088	24.0922	12.9912	3	24.0760	7.0147		7.0194
4	14.0094	25.9455	13.9906	4	25.9280	7.5543		7.5594
5	15.0101	27.7987	14.9899	5	27.7800	8.0939		8.0994
6	16.0108	29.6520	15.9892	6	29.6320	8.6335		8.6393
7	17.0115	31.5052	16.9886	7	31.4840	9.1731		9.1793
8	18.0121	33.3585	17.9879	8	33.3360	9.7127		9.7192
9	19.0128	35.2117	18.9872	9	35.1880	10.2523		10.2592
20	20.0135	37.0650	19.9865	20	37.0400	10.7919		10.7991
1	21.0142	38.9182	20.9859	1	38.8920	11.3315		11.3391
2	22.0148	40.7715	21.9852	2	40.7440	11.8711		11.8790
3	23.0155	42.6247	22.9845	3	42.5960	12.4106		12.4190
4	24.0162	44.4780	23.9838	4	44.4480	12.9502		12.9590
5	25.0168	46.3312	24.9832	5	46.3000	13.4898		13.4989
6	26.0175	48.1844	25.9825	6	48.1520	14.0294		14.0389
7	27.0182	50.0377	26.9818	7	50.0040	14.5690		14.5788
8	28.0189	51.8909	27.9811	8	51.8560	15.1086		15.1188
9	29.0195	53.7442	28.9805	9	53.7080	15.6482		15.6587
30	30.0202	55.5974	29.9798	30	55.5600	16.1878		16.1987
1	31.0209	57.4507	30.9791	1	57.4120	16.7274		16.7387
2	32.0216	59.3039	31.9785	2	59.2640	17.2670		17.2786
3	33.0222	61.1572	32.9778	3	61.1160	17.8066		17.8186
4	34.0229	63.0104	33.9771	4	62.9680	18.3462		18.3585
5	35.0236	64.8637	34.9764	5	64.8200	18.8858		18.8985
6	36.0243	66.7169	35.9758	6	66.6720	19.4254		19.4384
7	37.0249	68.5702	36.9751	7	68.5240	19.9649		19.9784
8	38.0256	70.4234	37.9744	8	70.3760	20.5045		20.5184
9	39.0263	72.2767	38.9737	9	72.2280	21.0441		21.0583
40	40.0270	74.1299	39.9731	40	74.0800	21.5837		21.5983
1	41.0276	75.9832	40.9724	1	75.9320	22.1233		22.1382
2	42.0283	77.8364	41.9717	2	77.7840	22.6629		22.6782
3	43.0290	79.6897	42.9710	3	79.6360	23.2025		23.2181
4	44.0297	81.5429	43.9704	4	81.4880	23.7421		23.7581
5	45.0303	83.3962	44.9697	5	83.3400	24.2817		24.2981
6	46.0310	85.2494	45.9690	6	85.1920	24.8213		24.8380
7	47.0317	87.1027	46.9683	7	87.0440	25.3609		25.3780
8	48.0323	88.9559	47.9677	8	88.8960	25.9005		25.9179
9	49.0330	90.8092	48.9670	9	90.7480	26.4401		26.4579

50	50.0337	92.6624	49.9663	50	92.6000	26.9797	26.9978	60
1	51.0344	94.5156	50.9657	1	94.4520	27.5193	27.5378	1
2	52.0350	96.3689	51.9650	2	96.3040	28.0588	28.0778	2
3	53.0357	98.2221	52.9643	3	98.1560	28.5984	28.6177	3
4	54.0364	100.0754	53.9636	4	100.0080	29.1380	29.1577	4
5	55.0371	101.9286	54.9630	5	101.8600	29.6776	29.6976	5
6	56.0377	103.7819	55.9623	6	103.7120	30.2172	30.2376	6
7	57.0384	105.6351	56.9616	7	105.5640	30.7568	30.7775	7
8	58.0391	107.4884	57.9609	8	107.4160	31.2964	31.3175	8
9	59.0398	109.3416	58.9603	9	109.2680	31.8360	31.8575	9
60	60.0404	111.1949	59.9596	60	111.1200	32.3756	32.3974	60
1	61.0411	113.0481	60.9589	1	112.9720	32.9152	32.9374	1
2	62.0418	114.9014	61.9582	2	114.8240	33.4548	33.4773	2
3	63.0425	116.7546	62.9576	3	116.6760	33.9944	34.0173	3
4	64.0431	118.6079	63.9569	4	118.5280	34.5340	34.5572	4
5	65.0438	120.4611	64.9562	5	120.3800	35.0736	35.0972	5
6	66.0445	122.3144	65.9556	6	122.2320	35.6132	35.6371	6
7	67.0452	124.1676	66.9549	7	124.0840	36.1527	36.1771	7
8	68.0458	126.0209	67.9542	8	125.9360	36.6923	36.7171	8
9	69.0465	127.8741	68.9535	9	127.7880	37.2319	37.2570	9
70	70.0472	129.7274	69.9529	70	129.6400	37.7715	37.7970	70
1	71.0478	131.5806	70.9522	1	131.4920	38.3111	38.3369	1
2	72.0485	133.4339	71.9515	2	133.3440	38.8507	38.8769	2
3	73.0492	135.2871	72.9508	3	135.1960	39.3903	39.4168	3
4	74.0499	137.1404	73.9502	4	137.0480	39.9299	39.9568	4
5	75.0505	138.9936	74.9495	5	138.9000	40.4695	40.4968	5
6	76.0512	140.8468	75.9488	6	140.7520	41.0091	41.0367	6
7	77.0519	142.7001	76.9481	7	142.6040	41.5487	41.5767	7
8	78.0526	144.5533	77.9475	8	144.4560	42.0883	42.1166	8
9	79.0532	146.4066	78.9468	9	146.3080	42.6279	42.6566	9
80	80.0539	148.2598	79.9461	80	148.1600	43.1675	43.1965	80
1	81.0546	150.1131	80.9455	1	150.0120	43.7070	43.7365	1
2	82.0553	151.9663	81.9448	2	151.8640	44.2466	44.2765	2
3	83.0559	153.8196	82.9441	3	153.7160	44.7862	44.8164	3
4	84.0566	155.6728	83.9434	4	155.5680	45.3258	45.3564	4
5	85.0573	157.5261	84.9428	5	157.4200	45.8654	45.8963	5
6	86.0580	159.3793	85.9421	6	159.2720	46.4050	46.4363	6
7	87.0586	161.2326	86.9414	7	161.1240	46.9446	46.9762	7
8	88.0593	163.0858	87.9407	8	162.9760	47.4842	47.5162	8
9	89.0600	164.9391	88.9401	9	164.8280	48.0238	48.0562	9
90	90.0607	166.7923	89.9394	90	166.6800	48.5634	48.5961	90
1	91.0613	168.6456	90.9387	1	168.5320	49.1030	49.1361	1
2	92.0620	170.4988	91.9380	2	170.3840	49.6426	49.6760	2
3	93.0627	172.3521	92.9374	3	172.2360	50.1822	50.2160	3
4	94.0633	174.2053	93.9367	4	174.0880	50.7218	50.7559	4
5	95.0640	176.0586	94.9360	5	175.9400	51.2614	51.2959	5
6	96.0647	177.9118	95.9354	6	177.7920	51.8009	51.8359	6
7	97.0654	179.7651	96.9347	7	179.6440	52.3405	52.3758	7
8	98.0660	181.6183	97.9340	8	181.4960	52.8801	52.9158	8
9	99.0667	183.4716	98.9333	9	183.3480	53.4197	53.4557	9
100	100.0674	185.3248	99.9327	100	185.2000	53.9593	53.9957	100

LENGTH—MILLIMETERS TO INCHES

[From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter=0.03937 inch.]

Milli- meters	Hundredths of millimeters									
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.00	Inches 0.00000	Inches 0.000394	Inches 0.000787	Inches 0.001181	Inches 0.001575	Inches 0.001968	Inches 0.002362	Inches 0.002756	Inches 0.003150	Inches 0.003543
0.10	.003937	.004331	.004724	.005118	.005512	.005906	.006299	.006693	.007087	.007480
0.20	.007874	.008268	.008661	.009055	.009449	.009842	.010236	.010630	.011024	.011417
0.30	.011811	.012205	.012598	.012992	.013386	.013780	.014173	.014567	.014961	.015354
0.40	.015748	.016142	.016535	.016929	.017323	.017716	.018110	.018504	.018898	.019291
0.50	.019685	.020079	.020472	.020866	.021260	.021654	.022047	.022441	.022835	.023228
0.60	.023622	.024016	.024409	.024803	.025197	.025590	.025984	.026378	.026772	.027165
0.70	.027559	.027953	.028346	.028740	.029134	.029528	.029921	.030315	.030709	.031102
0.80	.031496	.031890	.032283	.032677	.033071	.033464	.033858	.034252	.034646	.035039
0.90	.035433	.035827	.036220	.036614	.037008	.037402	.037795	.038189	.038583	.038976
1.00	.03937	.03976	.04016	.04055	.04094	.04134	.04173	.04213	.04252	.04291
1.10	.04331	.04370	.04409	.04449	.04488	.04528	.04567	.04606	.04646	.04685
1.20	.04724	.04764	.04803	.04843	.04882	.04921	.04961	.05000	.05039	.05079
1.30	.05118	.05157	.05197	.05236	.05276	.05315	.05354	.05394	.05433	.05472
1.40	.05512	.05551	.05591	.05630	.05669	.05709	.05748	.05787	.05827	.05866
1.50	.05906	.05945	.05984	.06024	.06063	.06102	.06142	.06181	.06220	.06260
1.60	.06299	.06339	.06378	.06417	.06457	.06496	.06535	.06575	.06614	.06654
1.70	.06693	.06732	.06772	.06811	.06850	.06890	.06929	.06968	.07008	.07047
1.80	.07087	.07126	.07165	.07205	.07244	.07283	.07323	.07362	.07402	.07441
1.90	.07480	.07520	.07559	.07598	.07638	.07677	.07717	.07756	.07795	.07835
2.00	.07874	.07913	.07953	.07992	.08031	.08071	.08110	.08150	.08189	.08228
2.10	.08268	.08307	.08346	.08386	.08425	.08465	.08504	.08543	.08583	.08622
2.20	.08661	.08701	.08740	.08780	.08819	.08858	.08898	.08937	.08976	.09016
2.30	.09055	.09094	.09134	.09173	.09213	.09252	.09291	.09331	.09370	.09409
2.40	.09449	.09488	.09528	.09567	.09606	.09646	.09685	.09724	.09764	.09803

2.50	0.09842	0.09882	0.09921	0.09961	0.10000	0.10039	0.10079	0.10118	0.10157	0.10197
2.60	.10236	.10276	.10315	.10354	.10394	.10433	.10472	.10512	.10551	.10591
2.70	.10630	.10669	.10709	.10748	.10787	.10827	.10866	.10905	.10945	.10984
2.80	.11024	.11063	.11102	.11142	.11181	.11220	.11260	.11299	.11339	.11378
2.90	.11417	.11457	.11496	.11535	.11575	.11614	.11654	.11693	.11732	.11772
3.00	0.11811	0.11850	0.11890	0.11929	0.11968	0.12008	0.12047	0.12087	0.12126	0.12165
3.10	.12205	.12244	.12283	.12323	.12362	.12402	.12441	.12480	.12520	.12559
3.20	.12598	.12638	.12677	.12717	.12756	.12795	.12835	.12874	.12913	.12953
3.30	.12992	.13031	.13071	.13110	.13150	.13189	.13228	.13268	.13307	.13346
3.40	.13386	.13425	.13465	.13504	.13543	.13583	.13622	.13661	.13701	.13740
3.50	0.13780	0.13819	0.13858	0.13898	0.13937	0.13976	0.14016	0.14055	0.14094	0.14134
3.60	.14173	.14213	.14252	.14291	.14331	.14370	.14409	.14449	.14488	.14528
3.70	.14567	.14606	.14646	.14685	.14724	.14764	.14803	.14842	.14882	.14921
3.80	.14961	.15000	.15039	.15079	.15118	.15157	.15197	.15236	.15276	.15315
3.90	.15354	.15394	.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	0.16102
4.10	.16142	.16181	.16220	.16260	.16299	.16339	.16378	.16417	.16457	.16496
4.20	.16535	.16575	.16614	.16654	.16693	.16732	.16772	.16811	.16850	.16890
4.30	.16929	.16968	.17008	.17047	.17087	.17126	.17165	.17205	.17244	.17283
4.40	.17323	.17362	.17402	.17441	.17480	.17520	.17559	.17598	.17638	.17677
4.50	0.17716	0.17756	0.17795	0.17835	0.17874	0.17913	0.17953	0.17992	0.18031	0.18071
4.60	.18110	.18150	.18189	.18228	.18268	.18307	.18346	.18386	.18425	.18465
4.70	.18504	.18543	.18583	.18622	.18661	.18701	.18740	.18779	.18819	.18858
4.80	.18898	.18937	.18976	.19016	.19055	.19094	.19134	.19173	.19213	.19252
4.90	.19291	.19331	.19370	.19409	.19449	.19488	.19528	.19567	.19606	.19646
5.00	0.19685	0.19724	0.19764	0.19803	0.19842	0.19882	0.19921	0.19961	0.20000	0.20039
5.10	.20079	.20118	.20157	.20197	.20236	.20276	.20315	.20354	.20394	.20433
5.20	.20472	.20512	.20551	.20591	.20630	.20669	.20709	.20748	.20787	.20827
5.30	.20866	.20905	.20945	.20984	.21024	.21063	.21102	.21142	.21181	.21220
5.40	.21260	.21299	.21339	.21378	.21417	.21457	.21496	.21535	.21575	.21614
5.50	0.21654	0.21693	0.21732	0.21772	0.21811	0.21850	0.21890	0.21929	0.21968	0.22008
5.60	.22047	.22087	.22126	.22165	.22205	.22244	.22283	.22323	.22362	.22402
5.70	.22441	.22480	.22520	.22559	.22598	.22638	.22677	.22716	.22756	.22795
5.80	.22835	.22874	.22913	.22953	.22992	.23031	.23071	.23110	.23150	.23189
5.90	.23228	.23268	.23307	.23346	.23386	.23425	.23465	.23504	.23543	.23583

LENGTH—MILLIMETERS TO INCHES—Continued

[From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter=0.03937 inch.]

Milli- meters	Hundredths of millimeters									
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
6.00	Inches 0.23622	Inches 0.23661	Inches 0.23701	Inches 0.23740	Inches 0.23779	Inches 0.23819	Inches 0.23858	Inches 0.23898	Inches 0.23937	Inches 0.23976
6.10	.24016	.24055	.24094	.24134	.24173	.24213	.24252	.24291	.24331	.24370
6.20	.24409	.24449	.24488	.24528	.24567	.24606	.24646	.24685	.24724	.24764
6.30	.24803	.24842	.24882	.24921	.24961	.25000	.25039	.25079	.25118	.25157
6.40	.25197	.25236	.25276	.25315	.25354	.25394	.25433	.25472	.25512	.25551
6.50	0.25590	0.25630	0.25669	0.25709	0.25748	0.25787	0.25827	0.25866	0.25905	0.25945
6.60	.25984	.26024	.26063	.26102	.26142	.26181	.26220	.26260	.26299	.26339
6.70	.26378	.26417	.26457	.26496	.26535	.26575	.26614	.26653	.26693	.26732
6.80	.26772	.26811	.26850	.26890	.26929	.26968	.27008	.27047	.27087	.27126
6.90	.27165	.27205	.27244	.27283	.27323	.27362	.27402	.27441	.27480	.27520
7.00	0.27559	0.27598	0.27638	0.27677	0.27716	0.27756	0.27795	0.27835	0.27874	0.27913
7.10	.27953	.27992	.28031	.28071	.28110	.28150	.28189	.28228	.28268	.28307
7.20	.28346	.28386	.28425	.28465	.28504	.28543	.28583	.28622	.28661	.28701
7.30	.28740	.28779	.28819	.28858	.28898	.28937	.28976	.29016	.29055	.29094
7.40	.29134	.29173	.29213	.29252	.29291	.29331	.29370	.29409	.29449	.29488
7.50	0.29528	0.29567	0.29606	0.29646	0.29685	0.29724	0.29764	0.29803	0.29842	0.29882
7.60	.29921	.29961	.30000	.30039	.30079	.30118	.30157	.30197	.30236	.30276
7.70	.30315	.30354	.30394	.30433	.30472	.30512	.30551	.30590	.30630	.30669
7.80	.30709	.30748	.30787	.30827	.30866	.30905	.30945	.30984	.31024	.31063
7.90	.31102	.31142	.31181	.31220	.31260	.31299	.31339	.31378	.31417	.31457
8.00	0.31496	0.31535	0.31575	0.31614	0.31653	0.31693	0.31732	0.31772	0.31811	0.31850
8.10	.31890	.31929	.31968	.32008	.32047	.32087	.32126	.32165	.32205	.32244
8.20	.32283	.32323	.32362	.32402	.32441	.32480	.32520	.32559	.32598	.32638
8.30	.32677	.32716	.32756	.32795	.32835	.32874	.32913	.32953	.32992	.33031
8.40	.33071	.33110	.33150	.33189	.33228	.33268	.33307	.33346	.33386	.33425

8.50	0. 33464	0. 33504	0. 33543	0. 33583	0. 33622	0. 33661	0. 33701	0. 33740	0. 33779	0. 33819
8. 60	. 33858	. 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	. 36259	. 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. 37480	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	. 40079	. 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	. 46063	. 46102	. 46142	. 46181	. 46220	. 46260	. 46299	. 46338	. 46378	. 46417
11. 80	. 46457	. 46496	. 46535	. 46575	. 46614	. 46653	. 46693	. 46732	. 46772	. 46811
11. 90	. 46850	. 46890	. 46929	. 46968	. 47008	. 47047	. 47087	. 47126	. 47165	. 47205

LENGTH—MILLIMETERS TO INCHES—Continued.

[From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter=0.03937 inch.]

Milli- meters	Hundredths of millimeters									
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
12.00	0.47244	0.47283	0.47323	0.47362	0.47401	0.47441	0.47480	0.47520	0.47559	0.47598
12.10	.47638	.47677	.47716	.47756	.47795	.47835	.47874	.47913	.47953	.47992
12.20	.48031	.48071	.48110	.48150	.48189	.48228	.48268	.48307	.48346	.48386
12.30	.48425	.48464	.48504	.48543	.48583	.48622	.48661	.48701	.48740	.48779
12.40	.48819	.48858	.48898	.48937	.48976	.49016	.49055	.49094	.49134	.49173
12.50	0.49212	0.49252	0.49291	0.49331	0.49370	0.49409	0.49449	0.49488	0.49527	0.49567
12.60	.49606	.49646	.49685	.49724	.49764	.49803	.49842	.49882	.49921	.49961
12.70	.50000	.50039	.50079	.50118	.50157	.50197	.50236	.50275	.50315	.50354
12.80	.50394	.50433	.50472	.50512	.50551	.50590	.50630	.50669	.50709	.50748
12.90	.50787	.50827	.50866	.50905	.50945	.50984	.51024	.51063	.51102	.51142
13.00	0.51181	0.51220	0.51260	0.51299	0.51338	0.51378	0.51417	0.51457	0.51496	0.51535
13.10	.51575	.51614	.51653	.51693	.51732	.51772	.51811	.51850	.51890	.51929
13.20	.51968	.52008	.52047	.52087	.52126	.52165	.52205	.52244	.52283	.52323
13.30	.52362	.52401	.52441	.52480	.52520	.52559	.52598	.52638	.52677	.52716
13.40	.52756	.52795	.52835	.52874	.52913	.52953	.52992	.53031	.53071	.53110
13.50	0.53150	0.53189	0.53228	0.53268	0.53307	0.53346	0.53386	0.53425	0.53464	0.53504
13.60	.53543	.53583	.53622	.53661	.53701	.53740	.53779	.53819	.53858	.53898
13.70	.53937	.53976	.54016	.54055	.54094	.54134	.54173	.54212	.54252	.54291
13.80	.54331	.54370	.54409	.54448	.54488	.54527	.54567	.54606	.54646	.54685
13.90	.54724	.54764	.54803	.54842	.54882	.54921	.54961	.55000	.55039	.55079
14.00	0.55118	0.55157	0.55197	0.55236	0.55275	0.55315	0.55354	0.55394	0.55433	0.55472
14.10	.55512	.55551	.55590	.55630	.55669	.55709	.55748	.55787	.55827	.55866
14.20	.55905	.55945	.55984	.56024	.56063	.56102	.56142	.56181	.56220	.56260
14.30	.56299	.56338	.56378	.56417	.56457	.56496	.56535	.56575	.56614	.56653
14.40	.56693	.56732	.56772	.56811	.56850	.56890	.56929	.56968	.57008	.57047

14.50	0. 57086	0. 57126	0. 57165	0. 57205	0. 57244	0. 57283	0. 57323	0. 57362	0. 57401	0. 57441
14. 60	. 57480	. 57520	. 57559	. 57598	. 57638	. 57677	. 57716	. 57756	. 57795	. 57835
14. 70	. 57874	. 57913	. 57953	. 57992	. 58031	. 58071	. 58110	. 58149	. 58189	. 58228
14. 80	. 58268	. 58307	. 58346	. 58386	. 58425	. 58464	. 58504	. 58543	. 58583	. 58622
14. 90	. 58661	. 58701	. 58740	. 58779	. 58819	. 58858	. 58898	. 58937	. 58976	. 59016
15.00	0. 59055	0. 59094	0. 59134	0. 59173	0. 59212	0. 59252	0. 59291	0. 59331	0. 59370	0. 59409
15. 10	. 59449	. 59488	. 59527	. 59567	. 59606	. 59646	. 59685	. 59724	. 59764	. 59803
15. 20	. 59842	. 59882	. 59921	. 59961	. 60000	. 60039	. 60079	. 60118	. 60157	. 60197
15. 30	. 60236	. 60275	. 60315	. 60354	. 60394	. 60433	. 60472	. 60512	. 60551	. 60590
15. 40	. 60630	. 60669	. 60709	. 60748	. 60787	. 60827	. 60866	. 60905	. 60945	. 60984
15.50	0. 61024	0. 61063	0. 61102	0. 61142	0. 61181	0. 61220	0. 61260	0. 61299	0. 61338	0. 61378
15. 60	. 61417	. 61457	. 61496	. 61535	. 61575	. 61614	. 61653	. 61693	. 61732	. 61772
15. 70	. 61811	. 61850	. 61890	. 61929	. 61968	. 62008	. 62047	. 62086	. 62126	. 62165
15. 80	. 62205	. 62244	. 62283	. 62323	. 62362	. 62401	. 62441	. 62480	. 62520	. 62559
15. 90	. 62598	. 62638	. 62677	. 62716	. 62756	. 62795	. 62835	. 62874	. 62913	. 62953
16.00	0. 62992	0. 63031	0. 63071	0. 63110	0. 63149	0. 63189	0. 63228	0. 63268	0. 63307	0. 63346
16. 10	. 63386	. 63425	. 63464	. 63504	. 63543	. 63583	. 63622	. 63661	. 63701	. 63740
16. 20	. 63779	. 63819	. 63858	. 63898	. 63937	. 63976	. 64016	. 64055	. 64094	. 64134
16. 30	. 64173	. 64212	. 64252	. 64291	. 64331	. 64370	. 64409	. 64449	. 64488	. 64527
16. 40	. 64567	. 64606	. 64646	. 64685	. 64724	. 64764	. 64803	. 64842	. 64882	. 64921
16.50	0. 64960	0. 65000	0. 65039	0. 65079	0. 65118	0. 65157	0. 65197	0. 65236	0. 65275	0. 65315
16. 60	. 65354	. 65394	. 65433	. 65472	. 65512	. 65551	. 65590	. 65630	. 65669	. 65709
16. 70	. 65748	. 65787	. 65827	. 65866	. 65905	. 65945	. 65984	. 66023	. 66063	. 66102
16. 80	. 66142	. 66181	. 66220	. 66260	. 66299	. 66338	. 66378	. 66417	. 66457	. 66496
16. 90	. 66535	. 66575	. 66614	. 66653	. 66693	. 66732	. 66772	. 66811	. 66850	. 66890
17.00	0. 66929	0. 66968	0. 67008	0. 67047	0. 67086	0. 67126	0. 67165	0. 67205	0. 67244	0. 67283
17. 10	. 67323	. 67362	. 67401	. 67441	. 67480	. 67520	. 67559	. 67598	. 67638	. 67677
17. 20	. 67716	. 67756	. 67795	. 67835	. 67874	. 67913	. 67953	. 67992	. 68031	. 68071
17. 30	. 68110	. 68149	. 68189	. 68228	. 68268	. 68307	. 68346	. 68386	. 68425	. 68464
17. 40	. 68504	. 68543	. 68583	. 68622	. 68661	. 68701	. 68740	. 68779	. 68819	. 68858
17.50	0. 68898	0. 68937	0. 68976	0. 69016	0. 69055	0. 69094	0. 69134	0. 69173	0. 69212	0. 69252
17. 60	. 69291	. 69331	. 69370	. 69409	. 69449	. 69488	. 69527	. 69567	. 69606	. 69646
17. 70	. 69685	. 69724	. 69764	. 69803	. 69842	. 69882	. 69921	. 69960	. 70000	. 70039
17. 80	. 70079	. 70118	. 70157	. 70197	. 70236	. 70275	. 70315	. 70354	. 70394	. 70433
17. 90	. 70472	. 70512	. 70551	. 70590	. 70630	. 70669	. 70709	. 70748	. 70787	. 70827

LENGTH—MILLIMETERS TO INCHES—Continued

[From 0.00 to 25.40 millimeters by 0.01 millimeter. 1 millimeter=0.03937 inch.]

Milli- meters	Hundredths of millimeters									
	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
18.00	Inches 0.70866	Inches 0.70905	Inches 0.70945	Inches 0.70984	Inches 0.71023	Inches 0.71063	Inches 0.71102	Inches 0.71142	Inches 0.71181	Inches 0.71220
18.10	.71260	.71299	.71338	.71378	.71417	.71457	.71496	.71535	.71575	.71614
18.20	.71653	.71693	.71732	.71772	.71811	.71850	.71890	.71929	.71968	.72008
18.30	.72047	.72086	.72126	.72165	.72205	.72244	.72283	.72323	.72362	.72401
18.40	.72441	.72480	.72520	.72559	.72598	.72638	.72677	.72716	.72756	.72795
18.50	0.72834	0.72874	0.72913	0.72953	0.72992	0.73031	0.73071	0.73110	0.73149	0.73189
18.60	.73228	.73268	.73307	.73346	.73386	.73425	.73464	.73504	.73543	.73583
18.70	.73622	.73661	.73701	.73740	.73779	.73819	.73858	.73897	.73937	.73976
18.80	.74016	.74055	.74094	.74134	.74173	.74212	.74252	.74291	.74331	.74370
18.90	.74409	.74449	.74488	.74527	.74567	.74606	.74646	.74685	.74724	.74764
19.00	0.74803	0.74842	0.74882	0.74921	0.74960	0.75000	0.75039	0.75079	0.75118	0.75157
19.10	.75197	.75236	.75275	.75315	.75354	.75394	.75433	.75472	.75512	.75551
19.20	.75590	.75630	.75669	.75709	.75748	.75787	.75827	.75866	.75905	.75945
19.30	.75984	.76023	.76063	.76102	.76142	.76181	.76220	.76260	.76299	.76338
19.40	.76378	.76417	.76457	.76496	.76535	.76575	.76614	.76653	.76693	.76732
19.50	0.76772	0.76811	0.76850	0.76890	0.76929	0.76968	0.77008	0.77047	0.77086	0.77126
19.60	.77165	.77205	.77244	.77283	.77323	.77362	.77401	.77441	.77480	.77520
19.70	.77559	.77598	.77638	.77677	.77716	.77756	.77795	.77834	.77874	.77913
19.80	.77953	.77992	.78031	.78071	.78110	.78149	.78189	.78228	.78268	.78307
19.90	.78346	.78386	.78425	.78464	.78504	.78543	.78583	.78622	.78661	.78701
20.00	0.78740	0.78779	0.78819	0.78858	0.78897	0.78937	0.78976	0.79016	0.79055	0.79094
20.10	.79134	.79173	.79212	.79252	.79291	.79331	.79370	.79409	.79448	.79488
20.20	.79527	.79567	.79606	.79646	.79685	.79724	.79764	.79803	.79842	.79882
20.30	.79921	.79960	.80000	.80039	.80079	.80118	.80157	.80197	.80236	.80275
20.40	.80315	.80354	.80394	.80433	.80472	.80512	.80551	.80590	.80630	.80669

20.50	0.80708	0.80748	0.80787	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	.81457
20.70	.81496	.81535	.81575	.81614	.81653	.81693	.81732	.81771	.81811	.81850
20.80	.81890	.81929	.81968	.82008	.82047	.82086	.82126	.82165	.82205	.82244
20.90	.82283	.82323	.82362	.82401	.82441	.82480	.82520	.82559	.82598	.82638
21.00	0.82677	0.82716	0.82756	0.82795	0.82834	0.82874	0.82913	0.82953	0.82992	0.83031
21.10	.83071	.83110	.83149	.83189	.83228	.83268	.83307	.83346	.83386	.83425
21.20	.83464	.83504	.83543	.83583	.83622	.83661	.83701	.83740	.83779	.83819
21.30	.83858	.83897	.83937	.83976	.84016	.84055	.84094	.84134	.84173	.84212
21.40	.84252	.84291	.84331	.84370	.84409	.84449	.84488	.84527	.84567	.84606
21.50	0.84646	0.84685	0.84724	0.84764	0.84803	0.84842	0.84882	0.84921	0.84960	0.85000
21.60	.85039	.85079	.85118	.85157	.85197	.85236	.85275	.85315	.85354	.85394
21.70	.85433	.85472	.85511	.85551	.85590	.85630	.85669	.85708	.85748	.85787
21.80	.85827	.85866	.85905	.85945	.85984	.86023	.86063	.86102	.86142	.86181
21.90	.86220	.86260	.86299	.86338	.86378	.86417	.86457	.86496	.86535	.86575
22.00	0.86614	0.86653	0.86693	0.86732	0.86771	0.86811	0.86850	0.86890	0.86929	0.86968
22.10	.87008	.87047	.87086	.87126	.87165	.87205	.87244	.87283	.87323	.87362
22.20	.87401	.87441	.87480	.87520	.87559	.87598	.87638	.87677	.87716	.87756
22.30	.87795	.87834	.87874	.87913	.87953	.87992	.88031	.88071	.88110	.88149
22.40	.88189	.88228	.88268	.88307	.88346	.88386	.88425	.88464	.88504	.88543
22.50	0.88582	0.88622	0.88661	0.88701	0.88740	0.88779	0.88819	0.88858	0.88897	0.88937
22.60	.88976	.89016	.89055	.89094	.89134	.89173	.89212	.89252	.89291	.89331
22.70	.89370	.89409	.89449	.89488	.89527	.89567	.89606	.89645	.89685	.89724
22.80	.89764	.89803	.89842	.89882	.89921	.89960	.90000	.90039	.90079	.90118
22.90	.90157	.90197	.90236	.90275	.90315	.90354	.90394	.90433	.90472	.90512
23.00	0.90551	0.90590	0.90630	0.90669	0.90708	0.90748	0.90787	0.90827	0.90866	0.90905
23.10	.90945	.90984	.91023	.91063	.91102	.91142	.91181	.91220	.91260	.91299
23.20	.91338	.91378	.91417	.91457	.91496	.91535	.91575	.91614	.91653	.91693
23.30	.91732	.91771	.91811	.91850	.91890	.91929	.91968	.92008	.92047	.92086
23.40	.92126	.92165	.92205	.92244	.92283	.92323	.92362	.92401	.92441	.92480
23.50	0.92520	0.92559	0.92598	0.92638	0.92677	0.92716	0.92756	0.92795	0.92834	0.92874
23.60	.92913	.92953	.92992	.93031	.93071	.93110	.93149	.93189	.93228	.93268
23.70	.93307	.93346	.93386	.93425	.93464	.93504	.93543	.93582	.93622	.93661
23.80	.93701	.93740	.93779	.93819	.93858	.93897	.93937	.93976	.94016	.94055
23.90	.94094	.94134	.94173	.94212	.94252	.94291	.94331	.94370	.94409	.94449

9. TABLES OF EQUIVALENTS FROM 1 TO 999 UNITS

[Reduction factor: 1 foot = 0.3048006096 meter]

[illegible]

50	15.24003	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	15.34483	1	46.02489	1	76.30495	1	106.98501	1	137.46507	1	167.94514	1	198.42520	1	228.95326	1	259.38532	1	289.86538
2	15.89693	2	46.32969	2	76.80975	2	107.29681	2	137.76988	2	168.29681	2	198.73000	2	229.21006	2	259.69012	2	290.17018
3	16.15443	3	46.63449	3	77.11435	3	107.59462	3	138.07408	3	168.59574	3	199.03480	3	229.51486	3	259.99492	3	290.47498
4	16.45923	4	46.93929	4	77.41935	4	107.89462	4	138.37948	4	168.89742	4	199.33960	4	229.81966	4	260.29972	4	290.77978
5	16.76403	5	47.24409	5	77.72416	5	108.20422	5	138.68428	5	169.16434	5	199.64440	5	230.12446	5	260.60452	5	291.08458
6	17.06883	6	47.54899	6	78.02896	6	108.50902	6	138.98908	6	169.46914	6	199.94920	6	230.42926	6	260.90932	6	291.38938
7	17.37363	7	47.85379	7	78.33376	7	108.81382	7	139.29388	7	169.77394	7	199.25400	7	230.73406	7	261.21412	7	291.69418
8	17.67844	8	48.15850	8	78.63856	8	109.11862	8	139.59868	8	170.07874	8	200.55880	8	231.03886	8	261.51892	8	291.99898
9	17.98324	9	48.46330	9	78.94336	9	109.42342	9	139.90348	9	170.38354	9	200.86360	9	231.34366	9	261.82372	9	292.30378
60	18.28804	160	48.76810	260	79.24816	360	109.72822	460	140.20828	560	170.68834	660	201.16840	760	231.64846	860	262.12852	960	292.60859
1	18.59284	1	49.07290	1	79.55296	1	110.03202	1	140.51308	1	170.99314	1	201.47320	1	231.95326	1	262.43332	1	292.91339
2	18.89764	2	49.37770	2	79.85776	2	110.33782	2	140.81788	2	171.29794	2	201.77800	2	232.25806	2	262.73813	2	293.21819
3	19.20244	3	49.68250	3	80.16256	3	110.64262	3	141.12268	3	171.60274	3	202.08280	3	232.56287	3	263.04293	3	293.52299
4	19.50724	4	49.98730	4	80.46736	4	110.94742	4	141.42742	4	171.90754	4	202.38760	4	232.86767	4	263.34773	4	293.82779
5	19.81204	5	50.29210	5	80.77216	5	111.25222	5	141.73228	5	172.21234	5	202.69241	5	233.17247	5	263.65253	5	294.13259
6	20.11684	6	50.59690	6	81.07696	6	111.55702	6	142.03708	6	172.51715	6	202.99721	6	233.47727	6	263.95733	6	294.43739
7	20.42164	7	50.90170	7	81.38176	7	111.86182	7	142.34188	7	172.82195	7	203.30201	7	233.78207	7	264.26213	7	294.74219
8	20.72644	8	51.20650	8	81.68656	8	112.16662	8	142.64669	8	173.12675	8	203.60681	8	234.08687	8	264.56693	8	295.04699
9	21.03124	9	51.51130	9	81.99136	9	112.47142	9	142.95149	9	173.43155	9	203.91161	9	234.39167	9	264.87173	9	295.35179
70	21.33604	170	51.81610	270	82.29616	370	112.77623	470	143.25629	570	173.73635	670	204.21641	770	234.69647	870	265.17653	970	295.65659
1	21.64084	1	52.12090	1	82.60097	1	113.08103	1	143.56109	1	174.04115	1	204.52121	1	235.00127	1	265.48133	1	295.96139
2	21.94564	2	52.42570	2	82.90577	2	113.38583	2	143.86589	2	174.34595	2	204.82601	2	235.30607	2	265.78613	2	296.26619
3	22.25044	3	52.73051	3	83.21057	3	113.69063	3	144.17069	3	174.65075	3	205.13081	3	235.61087	3	266.09093	3	296.57099
4	22.55524	4	53.03531	4	83.51537	4	113.99543	4	144.47549	4	174.95555	4	205.43561	4	235.91567	4	266.39573	4	296.87579
5	22.86005	5	53.34011	5	83.82017	5	114.30023	5	144.78029	5	175.26035	5	205.74041	5	236.22047	5	266.70053	5	297.18059
6	23.16485	6	53.64491	6	84.12497	6	114.60503	6	145.08509	6	175.56515	6	206.04521	6	236.52527	6	267.00533	6	297.48539
7	23.46965	7	53.94971	7	84.42977	7	114.90983	7	145.38989	7	175.86995	7	206.35001	7	236.83007	7	267.31013	7	297.79020
8	23.77445	8	54.25451	8	84.73457	8	115.21463	8	145.69469	8	176.17475	8	206.65481	8	237.13487	8	267.61494	8	298.09500
9	24.07925	9	54.55931	9	85.03937	9	115.51943	9	145.99949	9	176.47955	9	206.95961	9	237.43967	9	267.91974	9	298.39980
80	24.38405	180	54.86411	280	85.34417	380	115.82423	480	146.30429	580	176.78435	680	207.26441	780	237.74448	880	268.22454	980	298.70460
1	24.68885	1	55.16901	1	85.64907	1	116.12903	1	146.60909	1	177.08915	1	207.56922	1	238.04928	1	268.52934	1	299.00940
2	24.99365	2	55.47371	2	85.95377	2	116.43383	2	146.91389	2	177.39395	2	207.87402	2	238.35408	2	268.83414	2	299.31420
3	25.29845	3	55.77851	3	86.25857	3	116.73863	3	147.21869	3	177.69876	3	208.17882	3	238.65888	3	269.13894	3	299.61900
4	25.60325	4	56.08331	4	86.56337	4	117.04343	4	147.52350	4	178.00356	4	208.48362	4	238.96368	4	269.44374	4	299.92380
5	25.90805	5	56.38811	5	86.86817	5	117.34823	5	147.82830	5	178.30836	5	208.78842	5	239.26848	5	269.74854	5	300.22860
6	26.21285	6	56.69291	6	87.17297	6	117.65304	6	148.13310	6	178.61316	6	209.09322	6	239.57328	6	270.05334	6	300.53340
7	26.51765	7	56.99771	7	87.47777	7	117.95784	7	148.43790	7	178.91796	7	209.39802	7	239.87808	7	270.35814	7	300.83820
8	26.82245	8	57.30251	8	87.78258	8	118.26264	8	148.74270	8	179.22276	8	209.70282	8	240.18288	8	270.66294	8	301.14300
9	27.12725	9	57.60732	9	88.08738	9	118.56744	9	149.04750	9	179.52756	9	210.00762	9	240.48768	9	270.96774	9	301.44780
90	27.43205	190	57.91212	290	88.39218	390	118.87224	490	149.35230	590	179.83236	690	210.31242	790	240.79248	890	271.27254	990	301.75260
1	27.73686	1	58.21692	1	88.69698	1	119.17704	1	149.65710	1	180.13716	1	210.61722	1	241.09728	1	271.57734	1	302.05740
2	28.04166	2	58.52172	2	89.00178	2	119.48184	2	149.96190	2	180.44196	2	210.92202	2	241.40208	2	271.88214	2	302.36220
3	28.34646	3	58.82652	3	89.30658	3	119.78664	3	150.26670	3	180.74676	3	211.22682	3	241.70688	3	272.18694	3	302.66701
4	28.65126	4	59.13132	4	89.61138	4	120.09144	4	150.57130	4	181.05156	4	211.53162	4	242.01168	4	272.49174	4	302.97181
5	28.95606	5	59.43612	5	89.91618	5	120.39624	5	150.87630	5	181.35636	5	211.83642	5	242.31648	5	272.79655	5	303.27661
6	29.26086	6	59.74092	6	90.22093	6	120.70104	6	151.18110	6	181.66116	6	212.14122	6	242.62129	6	273.10135	6	303.58141
7	29.56566	7	60.04572	7	90.52578	7	121.00584	7	151.48590	7	181.96596	7	212.44602	7	242.92609	7	273.40615	7	303.88621
8	29.87046	8	60.35052	8	90.83058	8	121.31064	8	151.79070	8	182.27076	8	212.75083	8	243.23089	8	273.71095	8	304.19101
9	30.17526	9	60.65532	9	91.13538	9	121.61544	9	152.09550	9	182.57557	9	213.05563	9	243.53569	9	274.01575	9	304.49581

1 inch = 0.02540 meter	4 inches = 0.10160 meter	7 inches = 0.17780 meter	10 inches = 0.25400 meter
2 inches = .05080 meter	5 inches = .12700 meter	8 inches = .20320 meter	11 inches = .27940 meter
3 inches = .07620 meter	6 inches = .15240 meter	9 inches = .22860 meter	12 inches = .30480 meter

50	164.04167	150	492.12500	250	820.20833	350	1,148.29167	450	1,476.37500	550	1,804.45833	650	2,132.54167	750	2,460.62500	850	2,788.70833	950	3,116.79167
1	167.32250	1	493.40583	1	823.48917	1	1,151.57292	1	1,470.65583	1	1,807.73200	1	2,135.82250	1	2,463.90583	1	2,791.98917	1	3,120.07250
2	170.68437	2	498.86957	2	826.77000	2	1,154.85333	2	1,482.93667	2	1,811.03917	2	2,139.90583	2	2,467.18667	2	2,795.27000	2	3,122.33533
3	173.80433	3	501.96750	3	830.05083	3	1,158.85333	3	1,486.27250	3	1,814.30667	3	2,142.88417	3	2,470.46750	3	2,796.53667	3	3,125.69167
4	177.16500	4	505.24633	4	833.33167	4	1,161.41500	4	1,489.49833	4	1,817.58167	4	2,148.66500	4	2,473.74833	4	2,801.85167	4	3,129.91500
5	180.45883	5	508.52917	5	836.61250	5	1,164.69583	5	1,492.77917	5	1,820.86250	5	2,154.94583	5	2,477.02917	5	2,805.11250	5	3,133.19583
6	183.72667	6	511.81000	6	839.89333	6	1,167.97667	6	1,496.06000	6	1,824.14333	6	2,162.22667	6	2,480.31000	6	2,808.39333	6	3,136.47667
7	187.00750	7	515.09083	7	843.17417	7	1,171.25500	7	1,499.34083	7	1,827.42417	7	2,165.50750	7	2,483.59083	7	2,811.67417	7	3,139.75750
8	190.28833	8	518.37167	8	846.45500	8	1,174.53833	8	1,502.62167	8	1,830.70500	8	2,168.78833	8	2,486.87167	8	2,814.95500	8	3,143.03833
9	193.56917	9	521.65250	9	849.73583	9	1,177.81917	9	1,505.90250	9	1,833.98583	9	2,172.06917	9	2,490.15250	9	2,818.23583	9	3,146.31917
60	196.85000	160	524.93333	260	853.01667	360	1,181.10000	460	1,509.18333	560	1,837.26667	660	2,165.35000	760	2,493.43333	860	2,821.51667	960	3,149.60000
1	200.13063	1	528.21417	1	856.29750	1	1,184.38083	1	1,512.46417	1	1,840.54750	1	2,168.63083	1	2,496.71417	1	2,824.79750	1	3,152.88083
2	203.41167	2	531.49500	2	859.57833	2	1,187.66167	2	1,515.74500	2	1,843.82833	2	2,171.91167	2	2,499.99500	2	2,828.07833	2	3,156.16167
3	206.69250	3	534.77583	3	862.85917	3	1,190.94250	3	1,519.02583	3	1,847.10917	3	2,175.19250	3	2,503.27583	3	2,831.35917	3	3,159.44250
4	209.97333	4	538.05667	4	866.14000	4	1,194.22333	4	1,522.30667	4	1,850.39000	4	2,178.47333	4	2,506.55667	4	2,834.64000	4	3,162.72333
5	213.25417	5	541.33750	5	869.42083	5	1,197.50417	5	1,525.58750	5	1,853.67083	5	2,181.75417	5	2,509.83750	5	2,837.92083	5	3,166.00417
6	216.53500	6	544.61833	6	872.70167	6	1,200.78500	6	1,528.86833	6	1,856.95167	6	2,185.03500	6	2,513.11833	6	2,841.20167	6	3,169.28500
7	219.81583	7	547.89917	7	875.98250	7	1,204.06583	7	1,532.14917	7	1,860.23250	7	2,188.31583	7	2,516.39917	7	2,844.48250	7	3,172.56583
8	223.09667	8	551.18000	8	879.26333	8	1,207.34667	8	1,535.43000	8	1,863.51333	8	2,191.59667	8	2,519.68000	8	2,847.76333	8	3,175.84667
9	226.37750	9	554.46083	9	882.54417	9	1,210.62750	9	1,538.71083	9	1,866.79417	9	2,194.87750	9	2,522.96083	9	2,851.04417	9	3,179.12750
70	229.65833	170	557.74167	270	885.82500	370	1,213.90833	470	1,541.99167	570	1,870.07500	670	2,198.15833	770	2,526.24167	870	2,854.32500	970	3,182.40833
1	232.93917	1	561.02250	1	889.10583	1	1,217.18817	1	1,545.27250	1	1,873.35583	1	2,201.43917	1	2,529.52250	1	2,857.60583	1	3,185.68917
2	236.22000	2	564.30333	2	892.38667	2	1,220.47000	2	1,548.55333	2	1,876.63667	2	2,204.72000	2	2,532.80333	2	2,860.88667	2	3,188.97000
3	239.50083	3	567.58417	3	895.66750	3	1,223.75083	3	1,551.83417	3	1,879.91750	3	2,208.00083	3	2,536.08417	3	2,864.16750	3	3,192.25083
4	242.78167	4	570.86500	4	898.94833	4	1,227.03167	4	1,555.11500	4	1,883.19833	4	2,211.28167	4	2,539.36500	4	2,867.44833	4	3,195.53167
5	246.06250	5	574.14583	5	902.22917	5	1,230.31250	5	1,558.39583	5	1,886.47917	5	2,214.56250	5	2,542.64583	5	2,870.72917	5	3,198.81250
6	249.34333	6	577.42667	6	905.51000	6	1,233.59333	6	1,561.67667	6	1,889.76000	6	2,217.84333	6	2,545.92667	6	2,874.01000	6	3,202.09333
7	252.62500	7	580.70750	7	908.79083	7	1,236.87417	7	1,564.95750	7	1,893.04083	7	2,221.12417	7	2,549.20750	7	2,877.29083	7	3,205.37417
8	255.90500	8	583.98833	8	912.07167	8	1,240.15500	8	1,568.23833	8	1,896.32167	8	2,224.40500	8	2,552.48833	8	2,880.57167	8	3,208.65500
9	259.18583	9	587.26917	9	915.35250	9	1,243.43583	9	1,571.51917	9	1,899.60250	9	2,227.68583	9	2,555.76917	9	2,883.85250	9	3,211.93583
80	262.46667	180	590.55000	280	918.63333	380	1,246.71667	480	1,574.80000	580	1,902.88333	680	2,230.96567	780	2,559.05000	880	2,887.13333	980	3,215.21667
1	265.74750	1	593.83083	1	921.91417	1	1,249.99750	1	1,578.08083	1	1,906.16417	1	2,234.24750	1	2,562.33083	1	2,890.41417	1	3,218.49750
2	269.02833	2	597.11167	2	925.19500	2	1,253.27833	2	1,581.36167	2	1,909.44500	2	2,237.52933	2	2,565.61167	2	2,893.69500	2	3,221.77833
3	272.30917	3	600.39250	3	928.47583	3	1,256.55917	3	1,584.64500	3	1,912.72583	3	2,240.80917	3	2,568.89250	3	2,896.97583	3	3,225.05917
4	275.59000	4	603.67333	4	931.75667	4	1,259.84000	4	1,587.92333	4	1,916.00667	4	2,244.09000	4	2,572.17333	4	2,900.25667	4	3,228.34000
5	278.87083	5	606.95417	5	935.03750	5	1,263.12083	5	1,591.20417	5	1,919.28667	5	2,247.37083	5	2,575.45417	5	2,903.53750	5	3,231.62083
6	282.15167	6	610.23500	6	938.31833	6	1,266.40167	6	1,594.48500	6	1,922.56833	6	2,250.65167	6	2,578.73500	6	2,906.81833	6	3,234.90167
7	285.43250	7	613.51583	7	941.59917	7	1,269.68250	7	1,597.76583	7	1,925.84917	7	2,253.93250	7	2,582.01583	7	2,910.09917	7	3,238.18250
8	288.71333	8	616.79667	8	944.88000	8	1,272.96333	8	1,601.46667	8	1,929.13000	8	2,257.21333	8	2,585.29667	8	2,913.38000	8	3,241.46333
9	291.99417	9	620.07750	9	948.16083	9	1,276.24417	9	1,604.32750	9	1,932.41083	9	2,260.49417	9	2,588.57750	9	2,916.66083	9	3,244.74417
90	295.27500	190	623.35833	290	951.44167	390	1,279.52500	490	1,607.60833	590	1,935.69167	690	2,263.77500	790	2,591.85833	890	2,919.94167	990	3,248.02500
1	298.55583	1	626.63917	1	954.72250	1	1,282.80583	1	1,610.88917	1	1,938.97250	1	2,267.05583	1	2,595.13917	1	2,923.22250	1	3,251.30583
2	301.83667	2	629.92000	2	958.00333	2	1,286.08667	2	1,614.17000	2	1,942.25333	2	2,270.33667	2	2,598.42000	2	2,926.50333	2	3,254.58667
3	305.11750	3	633.20083	3	961.28417	3	1,289.36750	3	1,617.45083	3	1,945.53417	3	2,273.61750	3	2,601.70833	3	2,929.78417	3	3,257.86750
4	308.39833	4	636.48167	4	964.56500	4	1,292.64833	4	1,620.73167	4	1,948.81500	4	2,276.89333	4	2,604.98167	4	2,933.06500	4	3,261.14833
5	311.67917	5	639.76250	5	967.84583	5	1,295.92917	5	1,624.01000	5	1,952.09583	5	2,280.17917	5	2,608.26250	5	2,936.34583	5	3,264.42917
6	314.96000	6	643.04333	6	971.12667	6	1,299.21000	6	1,627.29333	6	1,955.37667	6	2,283.46000	6	2,611.54333	6	2,939.62667	6	3,267.71000
7	318.24083	7	646.32417	7	974.40750	7	1,302.49083	7	1,630.57417	7	1,958.65750	7	2,286.74083	7	2,614.82417	7	2,942.90750	7	3,270.99083
8	321.52167	8	649.60500	8	977.68833	8	1,305.77167	8	1,633.85500	8	1,961.93833	8	2,290.02167	8	2,618.10500	8	2,946.18833	8	3,274.27167
9	324.80250	9	652.88583	9	980.96917	9	1,309.05250	9	1,637.13583	9	1,965.21917	9	2,293.30250	9	2,621.38583	9	2,949.46917	9	3,277.55250

50	80, 4674	150	241, 4021	250	402, 3368	350	563, 2715	450	724, 2062	550	885, 1410	650	1, 046, 0757	750	1, 207, 0104	850	1, 367, 9451	950	1, 528, 8799
1	82, 0767	1	243, 0114	1	403, 9461	1	564, 8809	1	725, 8156	1	886, 7503	1	1, 047, 6850	1	1, 208, 6198	1	1, 369, 5545	1	1, 530, 4892
2	83, 6861	2	244, 6208	2	405, 5555	2	566, 4902	2	727, 4249	2	888, 3597	2	1, 049, 2944	2	1, 210, 2291	2	1, 371, 1638	2	1, 532, 0986
3	85, 2954	3	246, 2301	3	407, 1648	3	568, 0996	3	729, 0343	3	889, 9690	3	1, 050, 9037	3	1, 211, 8385	3	1, 372, 7732	3	1, 533, 7079
4	86, 9047	4	247, 8395	4	408, 7742	4	569, 7089	4	730, 6436	4	891, 5784	4	1, 052, 5131	4	1, 213, 4478	4	1, 374, 3825	4	1, 535, 3172
5	88, 5141	5	249, 4488	5	410, 3835	5	571, 3183	5	732, 2530	5	893, 1877	5	1, 054, 1224	5	1, 215, 0572	5	1, 375, 9919	5	1, 536, 9266
6	90, 1228	6	251, 0582	6	411, 9929	6	572, 9276	6	733, 8623	6	894, 7971	6	1, 055, 7311	6	1, 216, 6665	6	1, 377, 6012	6	1, 538, 0359
7	91, 7324	7	252, 6675	7	412, 6022	7	574, 5370	7	735, 4717	7	896, 4064	7	1, 057, 3418	7	1, 218, 2758	7	1, 379, 2106	7	1, 540, 1453
8	93, 3421	8	254, 2769	8	415, 2116	8	576, 1463	8	737, 0810	8	898, 0157	8	1, 058, 9508	8	1, 219, 8852	8	1, 380, 8199	8	1, 541, 7546
9	95, 5862	9	255, 8862	9	416, 8209	9	577, 7557	9	738, 6904	9	899, 6251	9	1, 060, 5595	9	1, 221, 4945	9	1, 382, 4293	9	1, 543, 3640
60	96, 5608	160	257, 4956	260	418, 4303	360	579, 3650	460	740, 2997	560	901, 2344	660	1, 062, 1692	760	1, 223, 1039	860	1, 384, 0386	960	1, 544, 9733
1	98, 1702	1	259, 1049	1	420, 0390	1	580, 9743	1	741, 9091	1	903, 8438	1	1, 063, 7785	1	1, 224, 7132	1	1, 385, 6480	1	1, 546, 5827
2	99, 7785	2	260, 7142	2	421, 6490	2	582, 5837	2	743, 5184	2	904, 4531	2	1, 065, 3879	2	1, 226, 3236	2	1, 387, 2573	2	1, 548, 1920
3	101, 3889	3	262, 3230	3	423, 2583	3	584, 1930	3	745, 1278	3	906, 0625	3	1, 066, 9972	3	1, 227, 9319	3	1, 388, 8660	3	1, 549, 8014
4	102, 9982	4	263, 9329	4	424, 8677	4	585, 8024	4	746, 7371	4	907, 6718	4	1, 068, 6066	4	1, 229, 5413	4	1, 390, 4760	4	1, 551, 4107
5	104, 6076	5	265, 5423	5	426, 4770	5	587, 4117	5	748, 3465	5	909, 2812	5	1, 070, 2159	5	1, 231, 1506	5	1, 392, 0853	5	1, 553, 0201
6	106, 2169	6	267, 1516	6	428, 0864	6	589, 0211	6	749, 9558	6	910, 8905	6	1, 071, 8252	6	1, 232, 7600	6	1, 393, 6947	6	1, 554, 6294
7	107, 8263	7	268, 7610	7	429, 6957	7	590, 6304	7	751, 5652	7	912, 4999	7	1, 073, 4346	7	1, 234, 3693	7	1, 395, 3040	7	1, 556, 2388
8	109, 4356	8	270, 3703	8	431, 3051	8	592, 2398	8	753, 1745	8	914, 1092	8	1, 075, 0439	8	1, 235, 9787	8	1, 396, 9134	8	1, 557, 8481
9	111, 0450	9	271, 9797	9	432, 9144	9	593, 8491	9	754, 7838	9	915, 7186	9	1, 076, 6533	9	1, 237, 5880	9	1, 398, 5227	9	1, 559, 4575
70	112, 6543	170	273, 5890	270	434, 5237	370	595, 4585	470	756, 3932	570	917, 3279	670	1, 078, 2626	770	1, 239, 1974	870	1, 400, 1321	970	1, 561, 0668
1	114, 2637	1	275, 1984	1	436, 1331	1	597, 0678	1	758, 0025	1	918, 9373	1	1, 079, 8720	1	1, 240, 8067	1	1, 401, 7414	1	1, 562, 6761
2	115, 8730	2	276, 8077	2	437, 7424	2	598, 6772	2	759, 6119	2	920, 5466	2	1, 081, 4813	2	1, 242, 4161	2	1, 403, 3508	2	1, 564, 2855
3	117, 4823	3	278, 4171	3	439, 3518	3	600, 2865	3	761, 2212	3	922, 1560	3	1, 083, 0907	3	1, 244, 0254	3	1, 404, 9601	3	1, 565, 8948
4	119, 0917	4	280, 0264	4	440, 9611	4	601, 8959	4	762, 8306	4	923, 7653	4	1, 084, 7000	4	1, 245, 6347	4	1, 406, 5695	4	1, 567, 5042
5	120, 7010	5	281, 6358	5	442, 5705	5	603, 5052	5	764, 4399	5	925, 3747	5	1, 086, 3094	5	1, 247, 2441	5	1, 408, 1788	5	1, 569, 1135
6	122, 3104	6	283, 2451	6	444, 1798	6	605, 1145	6	766, 0493	6	926, 9840	6	1, 087, 9187	6	1, 248, 8534	6	1, 409, 7882	6	1, 570, 7229
7	123, 9197	7	284, 8545	7	445, 7892	7	606, 7239	7	767, 6586	7	928, 5933	7	1, 089, 5281	7	1, 250, 4628	7	1, 411, 3975	7	1, 572, 3322
8	125, 5291	8	286, 4638	8	447, 3985	8	608, 3332	8	769, 2680	8	930, 2027	8	1, 091, 1374	8	1, 252, 0721	8	1, 413, 0069	8	1, 573, 9416
9	127, 1384	9	288, 0732	9	449, 0079	9	609, 9436	9	770, 8773	9	931, 8120	9	1, 092, 7468	9	1, 253, 6815	9	1, 414, 6162	9	1, 575, 5509
80	128, 7478	180	289, 6825	280	450, 6172	380	611, 5519	480	772, 4867	580	933, 4214	680	1, 094, 3561	780	1, 255, 2908	880	1, 416, 2256	980	1, 577, 1603
1	130, 3571	1	291, 2918	1	452, 2266	1	613, 1613	1	774, 0960	1	935, 0307	1	1, 095, 9655	1	1, 256, 9002	1	1, 417, 8349	1	1, 578, 7696
2	131, 9665	2	292, 9012	2	453, 8359	2	614, 7706	2	775, 7054	2	936, 6401	2	1, 097, 5748	2	1, 258, 5095	2	1, 419, 4442	2	1, 580, 3790
3	133, 5758	3	294, 5105	3	455, 4453	3	616, 3800	3	777, 3147	3	938, 2494	3	1, 099, 1842	3	1, 260, 1189	3	1, 421, 0536	3	1, 581, 9883
4	135, 1852	4	296, 1199	4	457, 0546	4	617, 9893	4	778, 9241	4	939, 8588	4	1, 100, 7935	4	1, 261, 7282	4	1, 422, 6629	4	1, 583, 5977
5	136, 7945	5	297, 7292	5	458, 6640	5	619, 5987	5	780, 5334	5	941, 4681	5	1, 102, 4028	5	1, 263, 3376	5	1, 424, 2723	5	1, 585, 2070
6	138, 4039	6	299, 3386	6	460, 2733	6	621, 2080	6	782, 1427	6	943, 0375	6	1, 104, 0122	6	1, 264, 9469	6	1, 425, 8816	6	1, 586, 8164
7	140, 0132	7	300, 9479	7	461, 8827	7	622, 8174	7	783, 7521	7	944, 0868	7	1, 105, 6215	7	1, 266, 5563	7	1, 427, 4910	7	1, 588, 4257
8	141, 6226	8	302, 5573	8	463, 4920	8	624, 4267	8	785, 3614	8	946, 2962	8	1, 107, 2309	8	1, 268, 1656	8	1, 429, 1003	8	1, 590, 0351
9	143, 2319	9	304, 1666	9	465, 1013	9	626, 0361	9	786, 9708	9	947, 9055	9	1, 108, 8402	9	1, 269, 7750	9	1, 430, 7097	9	1, 591, 6444
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, 3843	890	1, 432, 3190	990	1, 593, 2537
1	146, 4506	1	307, 3853	1	468, 3200	1	629, 2548	1	791, 1895	1	951, 1242	1	1, 112, 0589	1	1, 272, 9936	1	1, 433, 9284	1	1, 594, 8631
2	148, 0599	2	308, 9947	2	469, 9294	2	630, 8641	2	792, 7988	2	952, 7336	2	1, 113, 6683	2	1, 274, 6030	2	1, 435, 5377	2	1, 596, 4724
3	149, 6693	3	310, 6040	3	471, 5387	3	632, 4735	3	793, 4082	3	954, 3429	3	1, 115, 2776	3	1, 276, 2123	3	1, 437, 1471	3	1, 598, 0818
4	151, 2786	4	312, 2134	4	473, 1481	4	634, 0828	4	795, 0175	4	955, 9522	4	1, 116, 8870	4	1, 277, 8217	4	1, 438, 7564	4	1, 599, 6911
5	152, 8880	5	313, 8227	5	474, 7574	5	635, 6922	5	796, 6269	5	957, 5616	5	1, 118, 4963	5	1, 279, 4310	5	1, 440, 3658	5	1, 601, 3005
6	154, 4973	6	315, 4321	6	476, 3668	6	637, 3015	6	798, 2362	6	959, 1709	6	1, 120, 1057	6	1, 281, 0404	6	1, 441, 9751	6	1, 602, 9098
7	156, 1067	7	317, 0414	7	477, 9761	7	638, 9108	7	799, 8456	7	960, 7803	7	1, 121, 7150	7	1, 282, 6497	7	1, 443, 5845	7	1, 604, 5192
8	157, 7160	8	318, 6507	8	479, 5855	8	640, 5202	8	801, 4549	8	962, 3896	8	1, 123, 3244	8	1, 284, 2591	8	1, 445, 1938	8	1, 606, 1285
9	159, 3254	9	320, 2601	9	481, 1048	9	642, 1295	9	803, 0643	9	963, 9990	9	1, 124, 9337	9	1, 285, 8684	9	1, 446, 8031	9	1, 607, 7379

LENGTH—KILOMETERS TO MILES

[Reduction factor: 1 kilometer=0.6213699495 mile]

Kilo-meters		Kilo-miles		Kilo-meters		Kilo-miles		Kilo-meters		Kilo-miles		Kilo-meters		Kilo-miles		Kilo-meters		Kilo-miles		Kilo-meters		Kilo-miles	
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3
0	0.62137	1.24274	1.86411	2.48548	3.10685	3.72822	4.34959	4.97096	5.59233	200	124.27399	300	186.41098	400	248.54798	500	310.68497	600	372.82197	700	434.95896	800	497.09596
1	62.75836	124.39973	186.04110	247.68247	309.32384	370.96521	432.60658	494.24795	555.88932	1	157.03235	1	187.06935	1	249.16935	1	311.30634	1	373.44334	1	435.58033	1	497.71733
2	63.37973	125.02110	186.66247	248.30384	310.04521	371.68658	433.32795	494.96932	556.61069	2	187.65372	2	249.79072	2	311.92672	2	384.06072	2	446.19772	2	508.33472	2	570.47172
3	64.00110	125.64247	187.28384	248.92521	310.66658	372.30795	433.94832	495.59069	557.23206	3	188.27509	3	250.41209	3	312.54309	3	384.68037	3	446.81737	3	508.95437	3	571.09137
4	64.62247	126.26384	187.90521	249.54658	311.28795	372.92932	434.56969	496.21206	557.85343	4	188.89646	4	251.03346	4	313.17046	4	385.30176	4	447.43876	4	509.57576	4	571.71276
5	65.24384	126.88521	188.52658	250.16795	311.90932	373.55069	435.19106	496.83343	558.47479	5	189.51783	5	251.65483	5	313.79182	5	385.92322	5	448.05972	5	510.19372	5	572.33412
6	65.86521	127.50658	189.14795	250.78932	312.53069	374.17206	435.81243	497.45479	559.09606	6	190.13920	6	252.27620	6	314.41319	6	386.54472	6	448.68106	6	510.81506	6	572.95546
7	66.48658	128.12795	189.76932	251.41069	313.15206	374.79343	436.43380	498.07576	559.71733	7	190.76057	7	252.89757	7	315.03456	7	387.11516	7	449.30240	7	511.43640	7	573.57680
8	67.10795	128.74932	190.39069	252.03206	313.77343	375.41479	437.05521	498.69712	560.33860	8	191.38194	8	253.51894	8	315.65593	8	387.73693	8	449.92384	8	512.05784	8	574.19816
9	67.72932	129.37069	191.01206	252.65343	314.39479	376.03616	437.67658	499.31849	560.95997	9	192.00331	9	254.14031	9	316.27730	9	388.35826	9	450.54512	9	512.67920	9	574.81952
10	68.35069	129.99206	191.63343	253.27479	315.01616	376.65758	438.29795	499.93986	561.58133	10	192.62468	10	254.76168	10	316.89867	10	388.97974	10	451.16658	10	513.30060	10	575.44088
11	68.97206	130.61343	192.25479	253.89616	315.63758	377.27895	438.91932	500.56120	562.20270	11	193.24605	11	255.38305	11	317.52007	11	389.60122	11	451.78806	11	513.92192	11	576.06228
12	69.59343	131.23479	192.87616	254.51758	316.25895	377.90032	439.54069	501.18257	562.82407	12	193.86742	12	256.00442	12	318.14141	12	390.22260	12	452.40952	12	514.54336	12	576.68368
13	70.21480	131.85616	193.49758	255.13906	316.88032	378.52179	440.16206	501.79406	563.44556	13	194.48879	13	256.62579	13	318.76278	13	390.89978	13	453.03077	13	515.16477	13	577.30468
14	70.83617	132.47753	194.11889	255.76033	317.50159	379.14320	440.78356	502.41556	564.06706	14	195.11016	14	257.24716	14	319.38415	14	391.52077	14	453.65117	14	515.78617	14	577.92608
15	71.45754	133.09880	194.74020	256.38110	318.12280	379.76381	441.40406	503.03706	564.68856	15	195.73153	15	257.86853	15	320.00552	15	392.14252	15	454.27251	15	516.40751	15	578.54749
16	72.07891	133.72003	195.36141	257.00181	318.74401	380.38502	442.02481	503.65856	565.31006	16	196.35290	16	258.48990	16	320.63000	16	392.76399	16	454.89399	16	517.02899	16	579.16899
17	72.69928	134.34124	195.98262	257.62302	319.36522	380.99623	442.64562	504.27906	565.93156	17	196.97427	17	259.11127	17	321.24826	17	393.38526	17	455.51526	17	517.65049	17	579.79049
18	73.31965	134.96245	196.60383	258.24423	320.00643	381.61743	443.26643	504.89956	566.55306	18	197.59564	18	259.73261	18	321.86963	18	394.00663	18	456.13663	18	518.27193	18	580.41193
19	73.94002	135.58366	197.22504	258.86544	320.62764	382.23864	443.88764	505.51006	567.17456	19	198.21701	19	260.35401	19	322.49100	19	394.62800	19	456.75800	19	518.89333	19	581.03333
20	74.56439	136.20487	197.84625	259.48665	321.24885	382.85985	444.50885	506.13156	567.79506	20	198.83838	20	260.97538	20	323.11237	20	395.24937	20	457.37937	20	519.51473	20	581.65473
1	75.18576	136.82608	198.46746	260.10786	321.87006	383.48106	445.13006	506.75306	568.41656	1	199.45975	1	261.59675	1	323.73374	1	395.87074	1	457.99974	1	520.13613	1	582.27613
2	75.80713	137.44727	199.08867	260.72907	322.49127	384.10227	445.75127	507.37457	569.03807	2	200.08112	2	262.21812	2	324.35514	2	396.49211	2	458.62011	2	520.75753	2	582.89753
3	76.42850	138.06848	199.70988	261.35028	323.11248	384.72348	446.37248	507.99558	569.65958	3	200.70249	3	262.83949	3	324.97648	3	397.11348	3	459.24047	3	521.37893	3	583.51893
4	77.04987	138.68969	200.33109	261.97149	323.73369	385.34469	446.99369	508.61709	570.28109	4	201.32386	4	263.46086	4	325.59785	4	397.73485	4	459.86185	4	521.99993	4	584.14033
5	77.67124	139.31090	200.95230	262.59270	324.35490	385.96590	447.61490	509.23859	570.90259	5	201.94523	5	264.08223	5	326.21922	5	398.35622	5	450.49321	5	522.62131	5	584.76171
6	78.29261	139.93211	201.57351	263.21391	324.97611	386.58711	448.23611	510.00009	571.52409	6	202.56660	6	264.70360	6	326.84059	6	398.97759	6	451.11458	6	523.24271	6	585.38311
7	78.91398	140.55332	202.19472	263.83512	325.59732	387.20832	448.85732	510.62159	571.84559	7	203.18797	7	265.32497	7	327.46196	7	399.59806	7	451.73593	7	523.86411	7	586.00451
8	79.53535	141.17453	202.81593	264.45633	326.21853	387.82953	449.47853	511.24309	572.46709	8	203.80934	8	265.94634	8	328.08333	8	400.21853	8	452.35733	8	524.48551	8	586.62591
9	80.15672	141.79574	203.43714	265.07754	326.83974	388.45074	450.09974	512.00009	573.08859	9	204.43071	9	266.56771	9	328.70470	9	400.84170	9	452.97869	9	525.10691	9	587.24691
10	80.77809	142.41695	204.05835	265.69875	327.46095	389.07195	450.72095	512.62159	573.71009	10	205.05208	10	267.18908	10	329.32607	10	401.46307	10	453.59969	10	525.72831	10	587.86831
11	81.39946	143.03816	204.67956	266.31996	328.08216	389.69316	451.34216	513.24309	574.33159	11	205.67345	11	267.81045	11	329.94744	11	402.08444	11	454.22143	11	526.34971	11	588.48971
12	82.02083	143.65937	205.30077	266.94117	328.70337	390.31437	451.96337	513.86459	574.95309	12	206.29482	12	268.43182	12	330.56881	12	402.70581	12	454.84281	12	526.97111	12	589.11111
13	82.64220	144.28058	205.92198	267.56238	329.32458	390.93558	452.58458	514.48609	575.57459	13	206.91619	13	269.05319	13	331.19018	13	403.32718	13	455.46417	13	527.59251	13	589.73251
14	83.26357	144.90179	206.54319	268.18359	329.94579	391.55679	453.20579	515.10759	576.19609	14	207.53756	14	269.67456	14	331.81155	14	403.94855	14	456.08554	14	528.21391	14	590.35391
15	83.88494	145.52299	207.16440	268.80480	330.56699	392.17799	453.82699	515.72909	576.81759	15	208.15893	15	270.29593	15	332.43292	15	404.56992	15	456.70691	15	528.83531	15	590.97531
16	84.50631	146.14420	207.78561	269.42601	331.18820	392.79920	454.44820	516.35059	577.43909	16	208.78030	16	270.91730	16	333.05420	16	405.19120	16	457.32828	16	529.45671	16	591.59671
17	85.12768	146.76541	208.40682	270.04722	331.80941	393.42041	455.06941	516.97209	578.06059	17	209.40167	17	271.53867	17	333.67566	17	405.81266	17	457.94965	17	530.07811	17	592.21811
18	85.74905	147.38662	209.02803	270.66843	332.43062	394.04162	455.69062	517.59359	578.68209	18	210.02304	18	272.16004	18	334.29703	18	406.43403	18	458.57103	18	530.69951	18	592.83951
19	86.37042	148.00783	209.64924	271.28964	333.05183	394.66283	456.31183	518.21509	579.30359	19	210.64441	19	272.78141	19	334.91840	19	407.05540	19	459.19239	19	531.32091	19	593.46091
20	86.99179	148.62904	210.27045	271.91085	333.67304	395.28404	456.93304	518.83659	579.92509	20	211.26578	20	273.40278	20	335.53977	20	407.67677	20	459.81376	20	531.94236	20	594.08236
1	87.61316	149.25025	210.89166	272.53206	334.29425	395.90525	457.55425	519.45809	580.54659	1	211.88715	1	274.02415	1	336.16114	1	408.29814	1	460.43513	1	532.56376	1	594.70376
2	88.23453	149.87146	211.51287	273.15327	334.91546	396.52646	458.17546	520.07959	581.16809	2	212.50852	2	274.64552	2	336.78251	2	408.91951	2	461.05650	2	533.18516	2	595.32516
3	88.85590	150.49267	212.13408	273.77448	335.53667	397.14767																	

50	31. 06850	150	93. 20549	250	155. 34249	350	217. 47948	450	279. 61648	550	341. 75347	650	403. 89047	750	466. 02746	850	528. 16446	950	590. 30145
1	31. 68987	1	93. 82686	1	155. 96386	1	218. 10085	1	280. 23785	1	342. 37484	1	404. 51184	1	466. 64883	1	528. 78583	1	590. 92282
2	32. 31124	2	94. 44823	2	156. 38323	2	218. 72222	2	280. 85922	2	342. 96221	2	404. 51381	2	467. 27020	2	529. 40720	2	591. 54419
3	32. 93261	3	95. 06960	3	157. 20660	3	219. 34359	3	281. 48059	3	343. 61758	3	404. 51580	3	467. 89157	3	530. 16556	3	592. 16556
4	33. 55398	4	95. 69097	4	157. 82797	4	219. 96496	4	282. 10196	4	344. 23895	4	406. 37595	4	468. 51294	4	530. 62894	4	592. 78693
5	34. 17535	5	96. 31234	5	158. 44934	5	220. 58633	5	282. 72333	5	344. 86032	5	406. 97832	5	469. 13431	5	531. 27131	5	593. 40830
6	34. 79672	6	96. 93771	6	159. 07071	6	221. 20770	6	283. 34470	6	345. 48169	6	407. 91639	6	470. 67639	6	531. 89268	6	594. 02967
7	35. 41809	7	97. 55508	7	159. 69208	7	221. 82907	7	283. 96677	7	346. 10346	7	408. 24006	7	470. 37075	7	532. 51405	7	594. 65104
8	36. 03946	8	98. 17645	8	160. 31345	8	222. 45044	8	284. 58804	8	346. 72403	8	408. 86143	8	470. 99842	8	533. 13542	8	595. 27241
9	36. 66083	9	98. 79782	9	160. 93482	9	223. 07181	9	285. 20881	9	347. 34580	9	409. 48280	9	471. 61979	9	533. 75679	9	595. 89378
60	37. 28220	160	99. 49199	260	161. 55619	360	223. 69318	460	285. 83018	560	347. 96717	660	410. 10417	760	472. 24116	860	534. 37816	960	596. 51515
1	37. 90357	1	100. 04056	1	162. 17756	1	224. 31455	1	286. 45155	1	348. 58854	1	410. 72554	1	472. 86253	1	534. 99953	1	597. 13652
2	38. 52494	2	100. 66193	2	162. 79893	2	224. 93592	2	287. 07292	2	349. 20991	2	411. 34691	2	473. 48390	2	535. 62090	2	597. 75789
3	39. 14631	3	101. 28330	3	163. 42030	3	225. 55729	3	287. 69292	3	349. 33128	3	411. 96828	3	474. 10527	3	536. 24227	3	598. 37926
4	39. 76768	4	101. 90467	4	164. 04167	4	226. 17866	4	288. 31566	4	350. 45265	4	412. 58965	4	474. 72664	4	536. 86364	4	599. 00063
5	40. 38905	5	102. 52604	5	164. 66304	5	226. 80003	5	288. 93703	5	351. 07402	5	413. 21102	5	475. 34801	5	537. 48501	5	599. 62201
6	41. 01042	6	103. 14741	6	165. 28441	6	227. 42140	6	289. 55840	6	351. 69339	6	413. 83239	6	475. 96938	6	538. 10638	6	600. 24337
7	41. 63179	7	103. 76878	7	165. 90578	7	228. 04277	7	290. 17977	7	352. 31676	7	414. 45376	7	476. 50958	7	538. 72775	7	600. 86474
8	42. 25316	8	104. 39015	8	166. 52715	8	228. 66414	8	290. 80114	8	352. 93813	8	415. 07513	8	477. 21212	8	539. 34912	8	601. 48611
9	42. 87453	9	105. 01152	9	167. 14852	9	229. 28551	9	291. 42251	9	353. 55910	9	415. 69650	9	477. 83349	9	539. 97049	9	602. 10748
70	43. 49590	170	105. 63289	270	167. 76989	370	229. 90688	470	292. 04388	570	354. 18087	670	416. 31787	770	478. 45486	870	540. 59186	970	602. 72885
1	44. 11727	1	106. 25426	1	168. 39126	1	230. 52825	1	292. 66525	1	354. 80224	1	416. 93924	1	479. 07623	1	541. 21323	1	603. 35022
2	44. 73864	2	106. 87563	2	169. 01263	2	231. 14962	2	293. 28662	2	355. 42361	2	417. 56061	2	479. 69760	2	541. 83460	2	603. 97159
3	45. 36001	3	107. 49700	3	169. 63400	3	231. 77099	3	293. 90799	3	356. 04683	3	418. 18198	3	480. 31897	3	542. 45597	3	604. 59296
4	45. 98138	4	108. 11837	4	170. 25537	4	232. 39236	4	294. 52936	4	356. 66635	4	418. 80335	4	480. 94034	4	543. 07734	4	605. 21433
5	46. 60275	5	108. 73974	5	170. 87674	5	233. 01373	5	295. 15073	5	357. 28772	5	419. 42472	5	481. 56171	5	543. 69871	5	605. 83570
6	47. 22412	6	109. 36111	6	171. 49811	6	233. 63510	6	295. 77210	6	357. 90900	6	420. 04609	6	482. 18308	6	544. 32008	6	606. 45707
7	47. 84549	7	109. 98248	7	172. 11948	7	234. 25648	7	296. 39347	7	358. 53045	7	420. 66746	7	482. 80345	7	544. 94195	7	607. 07844
8	48. 46686	8	110. 60385	8	172. 74085	8	234. 87784	8	297. 01484	8	359. 15183	8	421. 28883	8	483. 42582	8	545. 56382	8	607. 69981
9	49. 08823	9	111. 22522	9	173. 36222	9	235. 49921	9	297. 63621	9	359. 77320	9	421. 91020	9	484. 04719	9	546. 18419	9	608. 32118
80	49. 70969	180	111. 84659	280	173. 98359	380	236. 12058	480	298. 27558	580	360. 39457	680	422. 53157	780	484. 66556	880	546. 80556	980	608. 94255
1	50. 33097	1	112. 46156	1	174. 60496	1	236. 74195	1	298. 87895	1	361. 01394	1	423. 15294	1	485. 28993	1	547. 42693	1	609. 56392
2	50. 95234	2	113. 08033	2	175. 22633	2	237. 36332	2	299. 50032	2	361. 63731	2	423. 77431	2	485. 91130	2	548. 04830	2	610. 18529
3	51. 57371	3	113. 69770	3	175. 84770	3	237. 98469	3	300. 12169	3	362. 25868	3	424. 30568	3	486. 53267	3	548. 66967	3	610. 80666
4	52. 19508	4	114. 32077	4	176. 46907	4	238. 60606	4	300. 74306	4	362. 88005	4	425. 01705	4	487. 15404	4	549. 29104	4	611. 42803
5	52. 81645	5	114. 95344	5	177. 09044	5	239. 22743	5	301. 36443	5	363. 30142	5	425. 53842	5	487. 77541	5	549. 91241	5	612. 04940
6	53. 43782	6	115. 57481	6	177. 71181	6	239. 84880	6	301. 98580	6	364. 12279	6	426. 23979	6	488. 39678	6	550. 53378	6	612. 67077
7	54. 05919	7	116. 19618	7	178. 33318	7	240. 40717	7	302. 60717	7	364. 74416	7	426. 86816	7	489. 03815	7	551. 15515	7	613. 29214
8	54. 68056	8	116. 81755	8	178. 95455	8	241. 09154	8	303. 22854	8	365. 36553	8	427. 30253	8	489. 65932	8	551. 77652	8	613. 91351
9	55. 30193	9	117. 43892	9	179. 57592	9	241. 71291	9	303. 84951	9	365. 96960	9	428. 12590	9	490. 20689	9	552. 39789	9	614. 53488
90	55. 92330	190	118. 06029	290	180. 19729	390	242. 33428	490	304. 47128	590	366. 60827	690	428. 74527	790	490. 88226	890	553. 01926	990	615. 15625
1	56. 54467	1	118. 68166	1	180. 81866	1	242. 55565	1	305. 09265	1	367. 27964	1	429. 36664	1	491. 50363	1	553. 64062	1	615. 77762
2	57. 16604	2	119. 30303	2	181. 44003	2	243. 57702	2	305. 71302	2	367. 90163	2	429. 98863	2	492. 12560	2	554. 26161	2	616. 39899
3	57. 78741	3	119. 92440	3	182. 06140	3	244. 09859	3	306. 33559	3	368. 52738	3	430. 60937	3	492. 74367	3	554. 88356	3	617. 02036
4	58. 40878	4	120. 34577	4	182. 68277	4	244. 61976	4	306. 95676	4	369. 09375	4	431. 23074	4	493. 36774	4	555. 50473	4	617. 64173
5	59. 03015	5	121. 16714	5	183. 30414	5	245. 44113	5	307. 57812	5	369. 71512	5	431. 85211	5	493. 98911	5	556. 12610	5	618. 26310
6	59. 65152	6	121. 78851	6	183. 92551	6	246. 06250	6	308. 19949	6	370. 33946	6	432. 47348	6	494. 61048	6	556. 74747	6	618. 88584
7	60. 27289	7	122. 40988	7	184. 54687	7	246. 68387	7	308. 82086	7	370. 95786	7	433. 09485	7	495. 23185	7	557. 36884	7	619. 50784
8	60. 89426	8	123. 03125	8	185. 16824	8	247. 30524	8	309. 44824	8	371. 57923	8	433. 71622	8	495. 83522	8	557. 99021	8	620. 12721
9	61. 51562	9	123. 65262	9	185. 78961	9	247. 92661	9	310. 06360	9	372. 20060	9	434. 33759	9	496. 47459	9	558. 61158	9	620. 74658

60	20. 23436	150	60. 70309	250	101. 17182	350	141. 64054	450	182. 10927	550	222. 37799	650	263. 04672	750	303. 51545	850	343. 98417	950	384. 45290
1	101. 10778	1	61. 10178	1	101. 57650	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	61. 51246	2	101. 98119	2	142. 04523	2	182. 37387	2	222. 98268	2	263. 45141	2	303. 92013	2	344. 38886	2	384. 85759
3	21. 44842	3	61. 91715	3	102. 38588	3	142. 85460	3	183. 32333	3	223. 79206	3	264. 26078	3	304. 72951	3	345. 19823	3	385. 66696
4	21. 85311	4	62. 32184	4	102. 79056	4	143. 25929	4	183. 72802	4	224. 19574	4	264. 66016	4	304. 72951	4	345. 60292	4	386. 07165
5	22. 25780	5	62. 72653	5	103. 19525	5	143. 66398	5	184. 13270	5	224. 60143	5	265. 07016	5	305. 53888	5	346. 00761	5	386. 47633
6	22. 66249	6	63. 13121	6	103. 59994	6	144. 06866	6	184. 53739	6	225. 00612	6	265. 47184	6	305. 53888	6	346. 41230	6	386. 88102
7	23. 06717	7	63. 50590	7	104. 00463	7	144. 47335	7	184. 94208	7	225. 41080	7	265. 87953	7	306. 34826	7	346. 81698	7	387. 28571
8	23. 47186	8	63. 94059	8	104. 40931	8	144. 87804	8	185. 34677	8	225. 81549	8	266. 28422	8	306. 75294	8	347. 22167	8	387. 69040
9	23. 87655	9	64. 34527	9	104. 81400	9	145. 28273	9	185. 75145	9	226. 22018	9	266. 68890	9	307. 15763	9	347. 62636	9	388. 00508
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. 68592	1	65. 15465	1	105. 62338	1	146. 09210	1	186. 56083	1	227. 02955	1	267. 09359	1	307. 96701	1	348. 43573	1	388. 90446
2	25. 09061	2	65. 55934	2	106. 02806	2	146. 96719	2	186. 96551	2	227. 43424	2	267. 49828	2	308. 37169	2	348. 84042	2	389. 30915
3	25. 49530	3	65. 96402	3	106. 43275	3	146. 90148	3	187. 37020	3	227. 83893	3	268. 30765	3	308. 77638	3	349. 24511	3	389. 71383
4	25. 89998	4	66. 36871	4	106. 83744	4	147. 30616	4	187. 77489	4	228. 24362	4	268. 71234	4	309. 18107	4	349. 64979	4	390. 11852
5	26. 30467	5	66. 77340	5	107. 24212	5	147. 71085	5	188. 17958	5	228. 64830	5	269. 11703	5	309. 58575	5	350. 05448	5	390. 57221
6	26. 70936	6	67. 17809	6	107. 64681	6	148. 11554	6	188. 58426	6	229. 05209	6	269. 52472	6	310. 99044	6	350. 45917	6	390. 92780
7	27. 11405	7	67. 58277	7	108. 09150	7	148. 52022	7	188. 98955	7	229. 45768	7	269. 92614	7	310. 99044	7	350. 45917	7	391. 33258
8	27. 51873	8	67. 98746	8	108. 45619	8	148. 92401	8	189. 39364	8	229. 86236	8	270. 33109	8	310. 99044	8	351. 26884	8	391. 73277
9	27. 92342	9	68. 39215	9	108. 86087	9	149. 32960	9	189. 79833	9	230. 26705	9	270. 73578	9	311. 20450	9	351. 67323	9	392. 14196
70	28. 32811	170	68. 79683	270	109. 26556	370	149. 73429	470	190. 20301	570	230. 67174	670	271. 14046	770	311. 60919	870	352. 07792	970	392. 54664
1	28. 73280	1	69. 20132	1	109. 67025	1	150. 13897	1	190. 60701	1	231. 07643	1	271. 14046	1	312. 01388	1	352. 48260	1	392. 95133
2	29. 13748	2	69. 60621	2	110. 07962	2	150. 54366	2	191. 01239	2	231. 48111	2	271. 99671	2	312. 41857	2	352. 86729	2	393. 35602
3	29. 54217	3	70. 01040	3	110. 47962	3	150. 94855	3	191. 41707	3	231. 88580	3	272. 35453	3	312. 82325	3	353. 25198	3	393. 76070
4	29. 94686	4	70. 41558	4	110. 88431	4	151. 35304	4	191. 82176	4	232. 29018	4	272. 75921	4	313. 22794	4	353. 69667	4	394. 16539
5	30. 35154	5	70. 82027	5	111. 28900	5	151. 75772	5	192. 22645	5	232. 69519	5	273. 16390	5	313. 63263	5	354. 10135	5	394. 57008
6	30. 75623	6	71. 22496	6	111. 69368	6	152. 16241	6	192. 63114	6	233. 09986	6	273. 56859	6	314. 03731	6	354. 50604	6	394. 97477
7	31. 16092	7	71. 62965	7	112. 09837	7	152. 56710	7	193. 03582	7	233. 50455	7	273. 97328	7	314. 44200	7	354. 91073	7	395. 37945
8	31. 56561	8	72. 03433	8	112. 50366	8	152. 97178	8	193. 44051	8	233. 90924	8	274. 37796	8	314. 84669	8	355. 31542	8	395. 78414
9	31. 97029	9	72. 43902	9	112. 90775	9	153. 37647	9	193. 84520	9	234. 31392	9	274. 78265	9	315. 25138	9	355. 72010	9	396. 18883
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. 59352
1	32. 77967	1	73. 24839	1	113. 71712	1	154. 18585	1	194. 65457	1	235. 12330	1	275. 59202	1	316. 06075	1	356. 52948	1	396. 99820
2	33. 18436	2	73. 65308	2	114. 12181	2	154. 59053	2	195. 05926	2	235. 52799	2	275. 99671	2	316. 46544	2	356. 93416	2	397. 40289
3	33. 58904	3	74. 05777	3	114. 52649	3	154. 99522	3	195. 46395	3	235. 93267	3	276. 40140	3	317. 87013	3	357. 33885	3	397. 80758
4	33. 99373	4	74. 46246	4	114. 93118	4	155. 39991	4	195. 86863	4	236. 33736	4	276. 80609	4	317. 27481	4	357. 74354	4	398. 21226
5	34. 39842	5	74. 86714	5	115. 33587	5	155. 80460	5	196. 27332	5	236. 74205	5	277. 21077	5	317. 67950	5	358. 14823	5	398. 61695
6	34. 80310	6	75. 27183	6	115. 74056	6	156. 20928	6	196. 67801	6	237. 14673	6	277. 61546	6	318. 08419	6	358. 55291	6	399. 02164
7	35. 20779	7	75. 67652	7	116. 14524	7	156. 61367	7	197. 08270	7	237. 55142	7	278. 02015	7	318. 48887	7	358. 95760	7	399. 42633
8	35. 61248	8	76. 08121	8	116. 54993	8	157. 01866	8	197. 48738	8	237. 95611	8	278. 42484	8	318. 89356	8	359. 36229	8	399. 83101
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. 76698	9	400. 23570
90	36. 42185	190	76. 89058	290	117. 35931	390	157. 82803	490	198. 26676	590	238. 76548	690	279. 23421	790	319. 70925	890	360. 17166	990	400. 64039
1	36. 82654	1	77. 29527	1	117. 76399	1	158. 23272	1	198. 70145	1	239. 17017	1	279. 63890	1	320. 10762	1	360. 57635	1	401. 04508
2	37. 23123	2	77. 69995	2	118. 16868	2	158. 63741	2	199. 10613	2	239. 57486	2	280. 04358	2	320. 51231	2	360. 98104	2	401. 44976
3	37. 63592	3	78. 10464	3	118. 57337	3	159. 04209	3	199. 51082	3	239. 97955	3	280. 44827	3	320. 91700	3	361. 38572	3	401. 85445
4	38. 04060	4	78. 50933	4	118. 97805	4	159. 44678	4	199. 91551	4	240. 38423	4	280. 85296	4	321. 32169	4	361. 79041	4	402. 25914
5	38. 44529	5	78. 91402	5	119. 38274	5	159. 85147	5	200. 32019	5	240. 78892	5	281. 25765	5	321. 72637	5	362. 19510	5	402. 66382
6	38. 84998	6	79. 31870	6	119. 78743	6	160. 23616	6	200. 72488	6	241. 19361	6	281. 66233	6	322. 13106	6	362. 59979	6	403. 06851
7	39. 25466	7	79. 72339	7	120. 19212	7	160. 66064	7	201. 23357	7	241. 59629	7	282. 06702	7	322. 53575	7	363. 00447	7	403. 47320
8	39. 65935	8	80. 12808	8	120. 59680	8	161. 06583	8	201. 53426	8	242. 00298	8	282. 47171	8	322. 94943	8	363. 40916	8	403. 87789
9	40. 06404	9	80. 53276	9	121. 00149	9	161. 47022	9	201. 93894	9	242. 40767	9	282. 87640	9	323. 34512	9	363. 81385	9	404. 28257

AREA—HECTARES TO ACRES

[Reduction factor: 1 hectare=2.471043930 acres]

Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres	Hectares	Acres
0	247.10439	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	900	2,223.93954
1	249.57544	1	249.57544	1	495.67983	1	743.78422	1	990.88862	1	1,235.52197	1	1,482.62636	1	1,729.73075	1	1,976.83514	1	2,223.93954
2	252.04648	2	252.04648	2	499.15087	2	746.25527	2	993.35966	2	1,240.46045	2	1,488.09740	2	1,732.02180	2	1,981.30619	2	2,226.41058
3	254.51752	3	254.51752	3	501.62192	3	748.72631	3	995.83070	3	1,245.93510	3	1,490.03949	3	1,737.14388	3	1,984.28828	3	2,231.35267
4	256.98857	4	256.98857	4	504.09296	4	751.19735	4	998.30175	4	1,245.40614	4	1,492.51053	4	1,739.61493	4	1,986.71932	4	2,233.82371
5	259.45961	5	259.45961	5	506.56401	5	753.66840	5	1,000.77289	5	1,247.87718	5	1,494.98158	5	1,742.08597	5	1,989.19036	5	2,236.29476
6	261.93066	6	261.93066	6	509.03505	6	756.13944	6	1,003.24384	6	1,250.34823	6	1,497.45262	6	1,744.55701	6	1,991.66141	6	2,238.76580
7	264.40170	7	264.40170	7	511.50609	7	758.61049	7	1,005.71488	7	1,252.81927	7	1,499.92367	7	1,747.02806	7	1,994.13245	7	2,241.23684
8	266.87274	8	266.87274	8	513.97714	8	761.08153	8	1,008.18592	8	1,255.29032	8	1,502.39471	8	1,749.49910	8	1,996.60350	8	2,243.70789
9	269.34379	9	269.34379	9	516.44818	9	763.55257	9	1,010.65697	9	1,257.76136	9	1,504.86575	9	1,751.97015	9	1,999.07454	9	2,246.17893
10	271.81483	110	271.81483	210	518.91923	310	766.02362	410	1,013.12801	510	1,260.23240	610	1,507.33680	710	1,754.44119	810	2,001.54558	910	2,248.64998
1	274.28588	1	274.28588	1	521.39027	1	768.49466	1	1,015.59906	1	1,262.70345	1	1,509.80784	1	1,756.91223	1	2,004.01663	1	2,251.12102
2	276.75692	2	276.75692	2	523.86131	2	770.96571	2	1,018.07010	2	1,265.17449	2	1,512.27889	2	1,759.38328	2	2,006.48767	2	2,253.59206
3	279.22796	3	279.22796	3	526.33236	3	773.43675	3	1,020.54114	3	1,267.64554	3	1,514.74993	3	1,761.85432	3	2,008.95872	3	2,256.06311
4	281.69901	4	281.69901	4	528.80340	4	775.90779	4	1,023.01219	4	1,270.11658	4	1,517.22097	4	1,764.32537	4	2,011.42976	4	2,258.53415
5	284.17005	5	284.17005	5	531.27444	5	778.37884	5	1,025.48323	5	1,272.58762	5	1,519.69202	5	1,766.79641	5	2,013.90080	5	2,261.00520
6	286.64110	6	286.64110	6	533.74549	6	780.84988	6	1,027.95427	6	1,275.05061	6	1,522.16306	6	1,769.26745	6	2,016.37185	6	2,263.47624
7	289.11214	7	289.11214	7	536.21653	7	783.32093	7	1,030.42532	7	1,277.52311	7	1,524.63416	7	1,771.73854	7	2,018.84289	7	2,265.94728
8	291.58318	8	291.58318	8	538.68758	8	785.79197	8	1,032.89336	8	1,280.00710	8	1,527.10513	8	1,774.20854	8	2,021.31304	8	2,268.41833
9	294.05423	9	294.05423	9	541.15862	9	788.26301	9	1,035.36741	9	1,282.47180	9	1,529.57619	9	1,776.68059	9	2,023.78498	9	2,270.88937
20	296.52527	120	296.52527	220	543.62966	320	790.73406	420	1,037.83845	520	1,284.94724	620	1,532.04724	720	1,779.05163	820	2,026.25602	920	2,273.36042
1	298.99632	1	298.99632	1	546.10071	1	793.20510	1	1,040.30949	1	1,287.41380	1	1,534.51828	1	1,781.62657	1	2,028.72707	1	2,275.83146
2	301.46736	2	301.46736	2	548.57175	2	795.67615	2	1,042.78054	2	1,290.88093	2	1,536.98032	2	1,784.09272	2	2,031.19811	2	2,278.30355
3	303.93840	3	303.93840	3	551.04280	3	798.14719	3	1,045.25158	3	1,293.35598	3	1,539.45037	3	1,786.56471	3	2,033.66915	3	2,280.77455
4	306.40945	4	306.40945	4	553.51384	4	800.61823	4	1,047.72263	4	1,295.82702	4	1,541.93141	4	1,789.03581	4	2,036.14020	4	2,283.24459
5	308.88049	5	308.88049	5	555.98488	5	803.08928	5	1,050.19367	5	1,297.29906	5	1,544.40246	5	1,791.50685	5	2,038.61124	5	2,285.71564
6	311.35154	6	311.35154	6	558.45593	6	805.56032	6	1,052.66471	6	1,299.76911	6	1,546.87350	6	1,794.97889	6	2,041.08229	6	2,288.18668
7	313.82258	7	313.82258	7	560.92697	7	808.03137	7	1,055.13576	7	1,302.24015	7	1,549.34454	7	1,796.44894	7	2,043.55333	7	2,290.65772
8	316.29362	8	316.29362	8	563.39802	8	810.50241	8	1,057.60680	8	1,304.71120	8	1,551.81559	8	1,798.91998	8	2,046.02437	8	2,293.12877
9	318.76467	9	318.76467	9	565.86906	9	812.97345	9	1,060.07680	9	1,307.18224	9	1,554.28663	9	1,801.39103	9	2,048.49542	9	2,295.59981
30	321.23571	130	321.23571	230	568.34010	330	815.44450	430	1,062.54885	530	1,309.05328	630	1,556.75768	730	1,803.86207	830	2,050.96646	930	2,298.07086
1	323.70675	1	323.70675	1	570.81115	1	817.91554	1	1,065.01993	1	1,312.12433	1	1,559.22872	1	1,806.33311	1	2,053.43751	1	2,300.54190
2	326.17780	2	326.17780	2	573.28219	2	820.38658	2	1,067.49098	2	1,314.59337	2	1,561.69976	2	1,808.80416	2	2,055.90855	2	2,303.01294
3	328.64884	3	328.64884	3	575.75324	3	822.85763	3	1,069.96202	3	1,317.06641	3	1,564.17081	3	1,811.27520	3	2,058.37959	3	2,305.48399
4	331.11989	4	331.11989	4	578.22428	4	825.32867	4	1,072.43307	4	1,319.53746	4	1,566.64185	4	1,813.74624	4	2,060.85064	4	2,307.95503
5	333.59093	5	333.59093	5	580.69532	5	827.79972	5	1,074.90411	5	1,322.00850	5	1,569.11290	5	1,816.21729	5	2,063.32168	5	2,310.42607
6	336.06197	6	336.06197	6	583.16637	6	830.27076	6	1,077.37515	6	1,324.47555	6	1,571.58394	6	1,818.68833	6	2,065.79273	6	2,312.89712
7	338.53302	7	338.53302	7	585.63741	7	832.74180	7	1,079.84620	7	1,326.95059	7	1,574.05498	7	1,821.15938	7	2,068.26377	7	2,315.36816
8	341.00406	8	341.00406	8	588.10846	8	835.21285	8	1,082.31724	8	1,329.42163	8	1,576.52603	8	1,823.63042	8	2,070.73481	8	2,317.83921
9	343.47511	9	343.47511	9	590.57950	9	837.68389	9	1,084.78829	9	1,331.89268	9	1,578.99707	9	1,826.10146	9	2,073.20586	9	2,320.31025
40	345.94615	140	345.94615	240	593.05054	340	840.15494	440	1,087.25933	540	1,334.36372	640	1,581.46812	740	1,828.57251	840	2,075.67690	940	2,322.78129
1	348.41719	1	348.41719	1	595.52159	1	842.62598	1	1,089.73037	1	1,336.83477	1	1,583.93916	1	1,831.04355	1	2,078.14795	1	2,325.25234
2	350.88824	2	350.88824	2	597.99263	2	845.09702	2	1,092.20142	2	1,339.30581	2	1,586.41020	2	1,833.51460	2	2,080.61899	2	2,327.72338
3	353.35928	3	353.35928	3	600.46367	3	847.56807	3	1,094.67246	3	1,341.77685	3	1,588.88125	3	1,835.98564	3	2,083.09003	3	2,330.19443
4	355.83033	4	355.83033	4	602.93472	4	850.03911	4	1,097.14350	4	1,344.24790	4	1,591.35229	4	1,838.45668	4	2,085.56108	4	2,332.66547
5	358.30137	5	358.30137	5	605.40576	5	852.51016	5	1,099.61455	5	1,346.71894	5	1,593.82334	5	1,840.92773	5	2,088.03212	5	2,335.13651
6	360.77241	6	360.77241	6	607.87681	6	854.98120	6	1,102.08559	6	1,349.18999	6	1,596.29438	6	1,843.39877	6	2,090.50317	6	2,337.60756
7	363.24346	7	363.24346	7	610.34785	7	857.45224	7	1,104.55664	7	1,351.66103	7	1,598.76438	7	1,845.86982	7	2,092.97421	7	2,340.07860
8	365.71450	8	365.71450	8	612.81889	8	859.92329	8	1,107.02768	8	1,354.13207	8	1,601.23647	8	1,848.34086	8	2,095.44525	8	2,342.54965
9	368.18555	9	368.18555	9	615.28994	9	862.39433	9	1,109.49872	9	1,356.60312	9	1,603.70751	9	1,850.81190	9	2,097.91630	9	2,345.02069

50	123, 55220	150	370, 65659	250	617, 76098	350	864, 86538	450	1,111, 46077	550	1,359, 07416	650	1,608, 17855	750	1,853, 28295	850	2,100, 38734	950	2,347, 49173
1	126, 02324	1	373, 12763	1	620, 23203	1	867, 33642	1	1,114, 44081	1	1,361, 54521	1	1,608, 64960	1	1,855, 75399	1	2,102, 88388	1	2,349, 96278
2	128, 49428	2	375, 59868	2	622, 70307	2	869, 80746	2	1,116, 91186	2	1,364, 01625	2	1,611, 12064	2	1,858, 22504	2	2,105, 32943	2	2,352, 43382
3	130, 96533	3	378, 06972	3	625, 17411	3	872, 28751	3	1,119, 38290	3	1,366, 48729	3	1,613, 59169	3	1,860, 69608	3	2,107, 80047	3	2,354, 90487
4	133, 43637	4	380, 54077	4	627, 64516	4	874, 74955	4	1,121, 85394	4	1,368, 98334	4	1,616, 06273	4	1,863, 16712	4	2,110, 27152	4	2,357, 37591
5	135, 90712	5	383, 01181	5	630, 11620	5	877, 22060	5	1,124, 32499	5	1,371, 42938	5	1,618, 53377	5	1,865, 63817	5	2,112, 74256	5	2,359, 84695
6	138, 37846	6	385, 48285	6	632, 58725	6	879, 69164	6	1,126, 79603	6	1,373, 90043	6	1,621, 00482	6	1,868, 10921	6	2,115, 21360	6	2,362, 31800
7	140, 84950	7	387, 95390	7	635, 05820	7	882, 16268	7	1,129, 26708	7	1,376, 37147	7	1,623, 47586	7	1,870, 58026	7	2,117, 68465	7	2,364, 78904
8	143, 32055	8	390, 42404	8	637, 52933	8	884, 63373	8	1,131, 73812	8	1,378, 84251	8	1,625, 94691	8	1,873, 05130	8	2,120, 15569	8	2,367, 26009
9	145, 79159	9	392, 89598	9	640, 00038	9	887, 10477	9	1,134, 20916	9	1,381, 31356	9	1,628, 41795	9	1,875, 52234	9	2,122, 62674	9	2,369, 73113
60	148, 26264	160	395, 36703	260	642, 47142	360	889, 57581	460	1,136, 68021	560	1,383, 78460	660	1,630, 88899	760	1,877, 99339	860	2,125, 09778	960	2,372, 20217
1	150, 73367	1	397, 83807	1	644, 94247	1	892, 04686	1	1,139, 15125	1	1,386, 25564	1	1,633, 36004	1	1,880, 46443	1	2,127, 56882	1	2,374, 67322
2	153, 20472	2	400, 30912	2	647, 41351	2	894, 51790	2	1,141, 62230	2	1,388, 72669	2	1,635, 83108	2	1,882, 93547	2	2,130, 03987	2	2,377, 14426
3	155, 67577	3	402, 78300	3	649, 88455	3	896, 98895	3	1,144, 09334	3	1,391, 19773	3	1,638, 30213	3	1,885, 40652	3	2,132, 51091	3	2,379, 61530
4	158, 14681	4	405, 25120	4	652, 35560	4	899, 45993	4	1,146, 56438	4	1,393, 66878	4	1,640, 77317	4	1,887, 87756	4	2,134, 98196	4	2,382, 08635
5	160, 61786	5	407, 72225	5	654, 82664	5	901, 93103	5	1,149, 03543	5	1,396, 13982	5	1,643, 24421	5	1,890, 34861	5	2,137, 45300	5	2,384, 55739
6	163, 08890	6	410, 19329	6	657, 29769	6	904, 40208	6	1,151, 50747	6	1,398, 61086	6	1,645, 71326	6	1,892, 15965	6	2,139, 92404	6	2,387, 02844
7	165, 55994	7	412, 66434	7	659, 76873	7	906, 87312	7	1,153, 97572	7	1,401, 08191	7	1,648, 16830	7	1,895, 29069	7	2,142, 38509	7	2,389, 49048
8	168, 03099	8	415, 13538	8	662, 23977	8	909, 34417	8	1,156, 44656	8	1,403, 53295	8	1,650, 65735	8	1,897, 76174	8	2,144, 86613	8	2,391, 97052
9	170, 50203	9	417, 06042	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, 33718	9	2,394, 41557
70	172, 97308	170	420, 07747	270	667, 18186	370	914, 28625	470	1,161, 39065	570	1,408, 49504	670	1,655, 59943	770	1,902, 70383	870	2,149, 80822	970	2,396, 91261
1	175, 44412	1	422, 54851	1	669, 65291	1	916, 75730	1	1,163, 86169	1	1,410, 96008	1	1,658, 07948	1	1,905, 17487	1	2,152, 27926	1	2,399, 38366
2	177, 91516	2	425, 01956	2	672, 12395	2	919, 22834	2	1,166, 33273	2	1,413, 43713	2	1,660, 54152	2	1,907, 64591	2	2,154, 75031	2	2,401, 85474
3	180, 38621	3	427, 49060	3	674, 59499	3	921, 69939	3	1,168, 80378	3	1,415, 90817	3	1,663, 01257	3	1,910, 11696	3	2,157, 22135	3	2,404, 32574
4	182, 85725	4	429, 96164	4	677, 06604	4	924, 17043	4	1,171, 27482	4	1,418, 37922	4	1,665, 48361	4	1,912, 58800	4	2,159, 69240	4	2,406, 79679
5	185, 32829	5	432, 43269	5	679, 53708	5	926, 64147	5	1,173, 74587	5	1,420, 85026	5	1,667, 95465	5	1,915, 05905	5	2,162, 16344	5	2,409, 26783
6	187, 79934	6	434, 90373	6	682, 00812	6	929, 11252	6	1,176, 21691	6	1,423, 32130	6	1,670, 42570	6	1,917, 53009	6	2,164, 63448	6	2,411, 73888
7	190, 27038	7	437, 37478	7	684, 47917	7	931, 58356	7	1,178, 68795	7	1,425, 79235	7	1,672, 89674	7	1,920, 00113	7	2,167, 10553	7	2,414, 20992
8	192, 74143	8	439, 84582	8	686, 95021	8	934, 05461	8	1,181, 15900	8	1,428, 26339	8	1,675, 36778	8	1,922, 47218	8	2,169, 57657	8	2,416, 68096
9	195, 21247	9	442, 31686	9	689, 42126	9	936, 52565	9	1,183, 63004	9	1,430, 73444	9	1,677, 83883	9	1,924, 94322	9	2,172, 04761	9	2,419, 15201
80	197, 68351	180	444, 78791	280	691, 89230	380	928, 99669	480	1,186, 10713	580	1,433, 20548	680	1,680, 30987	780	1,927, 41427	880	2,174, 51866	980	2,421, 62305
1	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, 88531	1	2,176, 98970	1	2,424, 09410
2	202, 62560	2	449, 73000	2	696, 83439	2	943, 93878	2	1,191, 04317	2	1,438, 14757	2	1,685, 25196	2	1,932, 35635	2	2,179, 46075	2	2,426, 56514
3	205, 09665	3	452, 20104	3	699, 30543	3	946, 40983	3	1,193, 51422	3	1,440, 61861	3	1,687, 72300	3	1,934, 82740	3	2,181, 93179	3	2,429, 03618
4	207, 56769	4	454, 67208	4	701, 77648	4	948, 88087	4	1,195, 98526	4	1,443, 08966	4	1,690, 19405	4	1,937, 29844	4	2,184, 40283	4	2,431, 50723
5	210, 03873	5	457, 14313	5	704, 24752	5	951, 35191	5	1,198, 45631	5	1,445, 56070	5	1,692, 66509	5	1,939, 76949	5	2,186, 87388	5	2,433, 97827
6	212, 50978	6	459, 61417	6	706, 71856	6	953, 82296	6	1,200, 92735	6	1,448, 03174	6	1,695, 13614	6	1,942, 24053	6	2,189, 34492	6	2,436, 44932
7	214, 98082	7	462, 08521	7	709, 18961	7	956, 29400	7	1,203, 39639	7	1,450, 50279	7	1,697, 60718	7	1,944, 71157	7	2,191, 81597	7	2,438, 92036
8	217, 45187	8	464, 55626	8	711, 66065	8	958, 76504	8	1,205, 86944	8	1,452, 97383	8	1,700, 70822	8	1,947, 18762	8	2,194, 28701	8	2,441, 39140
9	219, 92291	9	467, 02730	9	714, 13170	9	961, 23609	9	1,208, 34048	9	1,455, 44487	9	1,702, 54927	9	1,949, 65366	9	2,196, 75805	9	2,443, 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	990	2,446, 33349
1	224, 86500	1	471, 96939	1	719, 07378	1	966, 17818	1	1,213, 28257	1	1,460, 38696	1	1,707, 49136	1	1,954, 59575	1	2,201, 70014	1	2,448, 80454
2	227, 33604	2	474, 44043	2	721, 54483	2	968, 64922	2	1,215, 75361	2	1,462, 85801	2	1,709, 96240	2	1,957, 06679	2	2,204, 17119	2	2,451, 27558
3	229, 80709	3	476, 91148	3	724, 01587	3	971, 12026	3	1,218, 24636	3	1,465, 32095	3	1,712, 43344	3	1,959, 53784	3	2,206, 64223	3	2,453, 74662
4	232, 27813	4	479, 38252	4	726, 48692	4	973, 59131	4	1,220, 69570	4	1,467, 80009	4	1,714, 90449	4	1,962, 00888	4	2,209, 11327	4	2,456, 21767
5	234, 74917	5	481, 85357	5	728, 95796	5	976, 06235	5	1,223, 16675	5	1,470, 27114	5	1,717, 37553	5	1,964, 47992	5	2,211, 58432	5	2,458, 68871
6	237, 22022	6	484, 32461	6	731, 42900	6	978, 33640	6	1,225, 65779	6	1,472, 74218	6	1,719, 84658	6	1,966, 92507	6	2,214, 05336	6	2,461, 15975
7	239, 69126	7	486, 79565	7	733, 90005	7	981, 00444	7	1,228, 10683	7	1,475, 21323	7	1,722, 31762	7	1,969, 43201	7	2,216, 32641	7	2,463, 63080
8	242, 16231	8	489, 26770	8	736, 37109	8	983, 47504	8	1,230, 57968	8	1,477, 68427	8	1,724, 78866	8	1,971, 93906	8	2,218, 97945	8	2,466, 10184
9	244, 63335	9	491, 73774	9	738, 84214	9	985, 94653	9	1,233, 05992	9	1,477, 68427	9	1,727, 25971	9	1,974, 36410	9	2,221, 46849	9	2,468, 57289

VOLUME—CUBIC YARDS TO CUBIC METERS

[Reduction factor: 1 cubic yard=0.7645549453 cubic meter]

Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters	Cubic yards	Cubic meters
0	0.76456	100	76.45594	200	152.91189	300	229.36783	400	305.82378	500	382.27972	600	458.73567	700	535.19161	800	611.64756	900	688.10350
1	0.76456	1	77.22050	1	153.67645	1	230.13239	1	306.58834	1	383.04428	1	459.50023	1	535.95617	1	612.41212	1	688.86806
2	1.52912	2	77.98506	2	154.44101	2	230.89659	2	307.35290	2	383.80884	2	460.26079	2	536.72073	2	613.17668	2	689.63262
3	2.29368	3	78.74962	3	155.20557	3	231.66151	3	308.11746	3	384.57340	3	461.01829	3	537.48259	3	613.94123	3	690.39718
4	3.05824	4	79.51418	4	155.97013	4	232.42607	4	308.88202	4	385.33796	4	461.79390	4	538.24985	4	614.70579	4	691.16174
5	3.82280	5	80.27874	5	156.73469	5	233.19063	5	309.64658	5	386.10252	5	462.55545	5	539.01441	5	615.47035	5	691.92330
6	4.58736	6	81.04330	6	157.49925	6	233.95519	6	310.41113	6	386.86708	6	463.32202	6	539.77997	6	616.23491	6	692.68986
7	5.35192	7	81.80786	7	158.26381	7	234.71975	7	311.17569	7	387.63164	7	464.07852	7	540.54853	7	616.99947	7	693.45442
8	6.11648	8	82.57242	8	159.02836	8	235.48431	8	311.94025	8	388.39620	8	464.85214	8	541.30809	8	617.76403	8	694.21998
9	6.88104	9	83.33698	9	159.79292	9	236.24887	9	312.70481	9	389.16076	9	465.61670	9	542.07265	9	618.52859	9	694.98454
10	7.64559	110	84.10154	210	160.55748	310	237.01343	410	313.45937	510	389.92532	610	466.38126	710	542.83721	810	619.29315	910	695.74910
11	8.41015	1	84.86610	1	161.32204	1	237.77939	1	314.22393	1	390.68988	1	467.14582	1	543.60177	1	620.05771	1	696.51365
2	9.17471	2	85.63066	2	162.08660	2	238.54515	2	314.99849	2	391.45444	2	467.91038	2	544.36633	2	620.82227	2	697.27821
3	9.93927	3	86.39522	3	162.85116	3	239.30711	3	315.76305	3	392.21900	3	468.67494	3	545.13098	3	621.58683	3	698.04277
4	10.70383	4	87.15978	4	163.61572	4	240.07167	4	316.52761	4	392.98355	4	469.43950	4	545.89544	4	622.35139	4	698.80733
5	11.46839	5	87.92434	5	164.38028	5	240.83623	5	317.29217	5	393.74811	5	470.20406	5	546.66000	5	623.11595	5	699.57189
6	12.23295	6	88.68890	6	165.14484	6	241.60078	6	318.05673	6	394.51207	6	470.96862	6	547.42456	6	623.88051	6	700.33645
7	13.00751	7	89.45346	7	165.90940	7	242.36534	7	318.82129	7	395.27723	7	471.73318	7	548.18912	7	624.64507	7	701.10101
8	13.77207	8	90.21801	8	166.67396	8	243.12990	8	319.58585	8	396.04179	8	472.49774	8	548.95368	8	625.40963	8	701.86557
9	14.53663	9	90.98257	9	167.43852	9	243.89446	9	320.35041	9	396.80635	9	473.26230	9	549.71824	9	626.17419	9	702.63013
20	15.20119	120	91.74713	220	168.20308	320	244.65902	420	321.11497	520	397.57091	620	474.02686	720	550.48280	820	626.93875	920	703.39469
1	16.05575	1	92.51169	1	168.96764	1	245.42358	1	321.87953	1	398.33547	1	474.79142	1	551.24736	1	627.70330	1	704.15925
2	16.82031	2	93.27625	2	169.73220	2	246.18814	2	322.64409	2	399.10003	2	475.55597	2	552.01192	2	628.46786	2	704.92381
3	17.58487	3	94.04081	3	170.49676	3	246.95270	3	323.40865	3	399.86459	3	476.32053	3	552.77648	3	629.23242	3	705.68837
4	18.34943	4	94.80537	4	171.26132	4	247.71726	4	324.17320	4	400.62915	4	477.08509	4	553.54104	4	629.99698	4	706.45293
5	19.11399	5	95.56993	5	172.02588	5	248.48182	5	324.93776	5	401.39371	5	477.84965	5	554.30560	5	630.76154	5	707.21749
6	19.87855	6	96.33449	6	172.79043	6	249.24638	6	325.70232	6	402.15827	6	478.61421	6	555.07016	6	631.52610	6	707.98205
7	20.64311	7	97.09905	7	173.55499	7	250.01094	7	326.46688	7	402.92283	7	479.37877	7	555.83472	7	632.29066	7	708.74661
8	21.40766	8	97.86361	8	174.31955	8	250.77550	8	327.23144	8	403.68739	8	480.14333	8	556.59928	8	633.05522	8	709.51117
9	22.17222	9	98.62817	9	175.08411	9	251.54006	9	327.99600	9	404.45195	9	480.90789	9	557.36384	9	633.81978	9	710.27572
30	22.93678	130	99.39273	230	175.84867	330	252.30462	430	328.76056	530	405.21651	630	481.67245	730	558.12840	830	634.58434	930	711.04028
1	23.70134	1	100.15729	1	176.61323	1	253.06918	1	329.52512	1	405.98107	1	482.43701	1	558.89295	1	635.34890	1	711.80484
2	24.46590	2	100.92185	2	177.37779	2	253.83374	2	330.28968	2	406.74562	2	483.20157	2	559.65751	2	636.11346	2	712.56940
3	25.23046	3	101.68641	3	178.14235	3	254.59830	3	331.05480	3	407.51018	3	483.96613	3	560.42207	3	636.87802	3	713.33396
4	25.99502	4	102.45097	4	178.90691	4	255.36285	4	331.81824	4	408.27474	4	484.73069	4	561.18663	4	637.64258	4	714.09852
5	26.75958	5	103.21553	5	179.67147	5	256.12733	5	332.58336	5	409.03930	5	485.49525	5	561.95119	5	638.40714	5	714.86308
6	27.52414	6	103.98008	6	180.43603	6	256.89197	6	333.34792	6	409.80306	6	486.25981	6	562.71575	6	639.17170	6	715.62764
7	28.28870	7	104.74464	7	181.20059	7	257.65653	7	334.11248	7	410.56842	7	487.02437	7	563.48031	7	639.93626	7	716.39220
8	29.05326	8	105.50920	8	181.96515	8	258.42109	8	334.87704	8	411.33298	8	487.78893	8	564.24487	8	640.70082	8	717.15676
9	29.81782	9	106.27376	9	182.72971	9	259.18565	9	335.64160	9	412.09754	9	488.55349	9	565.00943	9	641.46537	9	717.92132
40	30.58238	140	107.03632	240	183.49427	340	259.95021	440	336.40616	540	412.86210	640	489.31804	740	565.77399	840	642.22993	940	718.68568
1	31.34694	1	107.80288	1	184.25883	1	260.71477	1	337.17072	1	413.62666	1	490.08260	1	566.53855	1	642.99449	1	719.45044
2	32.11150	2	108.56744	2	185.02339	2	261.47933	2	337.93527	2	414.39122	2	490.84716	2	567.30311	2	643.75905	2	720.21500
3	32.87606	3	109.33200	3	185.78795	3	262.24389	3	338.69983	3	415.15578	3	491.61172	3	568.06757	3	644.52361	3	720.97956
4	33.64062	4	110.09656	4	186.55250	4	263.00845	4	339.46439	4	415.92034	4	492.37628	4	568.83223	4	645.28817	4	721.74412
5	34.40518	5	110.86112	5	187.31706	5	263.77301	5	340.22805	5	416.68400	5	493.14084	5	569.59679	5	646.05273	5	722.50868
6	35.16973	6	111.62568	6	188.08162	6	264.53757	6	340.99331	6	417.44946	6	493.90340	6	570.36135	6	646.81729	6	723.27324
7	35.93429	7	112.39024	7	188.84618	7	265.30213	7	341.75807	7	418.21402	7	494.66916	7	571.12591	7	647.58185	7	724.03779
8	36.69885	8	113.15480	8	189.61074	8	266.06669	8	342.52263	8	418.97858	8	495.43852	8	571.89047	8	648.34641	8	724.80235
9	37.46341	9	113.91936	9	190.37530	9	266.83125	9	343.28719	9	419.74314	9	496.20908	9	572.65502	9	649.11097	9	725.56691

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	649.87509	950	726.33147
1	38.99253	1	115.44848	1	191.90442	1	268.36037	1	344.81631	1	421.27225	1	497.72820	1	574.18414	1	650.64509	1	727.09603
2	39.75709	2	116.21304	2	192.66898	2	269.12492	2	345.38087	2	422.03681	2	498.49276	2	575.71326	2	651.40465	2	727.86059
3	40.52165	3	116.97760	3	193.43354	3	269.88948	3	346.34543	3	422.80137	3	499.25732	3	576.44715	3	652.16921	3	728.62515
4	41.28621	4	117.74215	4	194.19810	4	270.65904	4	347.10999	4	423.56593	4	500.02188	4	577.24238	4	652.93377	4	729.38971
5	42.05077	5	118.50671	5	194.96266	5	271.41860	5	347.87455	5	424.33049	5	500.78644	5	577.47482	5	653.69833	5	730.15427
6	42.81533	6	119.27127	6	195.72722	6	272.18316	6	348.63911	6	425.09505	6	501.55100	6	578.00694	6	654.46289	6	730.91883
7	43.57989	7	120.03583	7	196.49178	7	272.94772	7	349.40367	7	425.85961	7	502.31556	7	578.77150	7	655.22744	7	731.68339
8	44.34445	8	120.80039	8	197.25634	8	273.71228	8	350.16823	8	426.62417	8	503.08012	8	579.53606	8	655.99200	8	732.44795
9	45.10901	9	121.56495	9	198.02090	9	274.47684	9	350.93279	9	427.38873	9	503.84467	9	580.30062	9	656.75656	9	733.21251
60	45.87357	160	122.32951	260	198.78546	360	275.24140	460	351.69734	560	428.15329	660	504.60923	760	581.06518	860	657.52112	960	733.97707
1	46.63813	1	123.09407	1	199.55002	1	276.00596	1	352.46190	1	428.91785	1	505.37379	1	581.82974	1	658.28568	1	734.74163
2	47.40269	2	123.85863	2	200.31457	2	276.77052	2	353.22646	2	429.68241	2	506.13835	2	582.59430	2	659.05024	2	735.50619
3	48.16725	3	124.62319	3	201.07913	3	277.53508	3	353.99102	3	430.44697	3	506.90291	3	583.35886	3	659.81480	3	736.27075
4	48.93180	4	125.38775	4	201.84369	4	278.29964	4	354.75558	4	431.21153	4	507.66747	4	584.12842	4	660.57936	4	737.03531
5	49.69635	5	126.15231	5	202.60825	5	279.06420	5	355.52014	5	432.03203	5	508.43203	5	584.88798	5	661.34392	5	737.79586
6	50.46092	6	126.91687	6	203.37281	6	279.82876	6	356.28470	6	432.74065	6	509.19659	6	585.65254	6	662.10848	6	738.56442
7	51.22548	7	127.68143	7	204.13737	7	280.59332	7	357.04926	7	433.50521	7	509.96115	7	586.41705	7	662.87304	7	739.32898
8	51.99004	8	128.44599	8	204.90193	8	281.35788	8	357.81382	8	434.26976	8	510.72571	8	587.18165	8	663.63760	8	740.09354
9	52.75460	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	53.51916	170	129.97511	270	206.43105	370	282.88699	470	359.34294	570	435.79888	670	512.25483	770	588.71077	870	665.16672	970	741.62266
1	54.28372	1	130.73967	1	207.19561	1	283.65155	1	360.10750	1	436.56344	1	513.01939	1	589.47533	1	665.93128	1	742.38722
2	55.04828	2	131.50422	2	207.96017	2	284.41611	2	360.87206	2	437.32800	2	513.78395	2	590.23989	2	666.69584	2	743.15178
3	55.81284	3	132.26878	3	208.72473	3	285.18067	3	361.63662	3	438.09256	3	514.54851	3	591.00445	3	667.46040	3	743.91634
4	56.57740	4	133.03334	4	209.48929	4	285.94523	4	362.40118	4	438.85712	4	515.31307	4	591.76901	4	668.22496	4	744.68090
5	57.34196	5	133.79790	5	210.25385	5	286.70979	5	363.16574	5	439.62168	5	516.07763	5	592.53357	5	668.98951	5	745.44546
6	58.10652	6	134.56246	6	211.01841	6	287.47435	6	363.93030	6	440.38624	6	516.84219	6	593.29813	6	669.75407	6	746.21002
7	58.87108	7	135.32702	7	211.78297	7	288.23891	7	364.69486	7	441.15080	7	517.60674	7	594.06269	7	670.51863	7	746.97458
8	59.63564	8	136.09158	8	212.54753	8	289.00347	8	365.45941	8	441.91536	8	518.37130	8	594.82725	8	671.28319	8	747.73914
9	60.40020	9	136.85614	9	213.31209	9	289.76803	9	366.22397	9	442.67992	9	519.13586	9	595.59181	9	672.04775	9	748.50370
80	61.16476	180	137.62070	280	214.07664	380	290.53259	480	366.98853	580	443.44448	680	519.90042	780	596.35637	880	672.81231	980	749.26826
1	61.92932	1	138.38526	1	214.84120	1	291.29715	1	367.75309	1	444.20904	1	520.66498	1	597.12093	1	673.57687	1	750.03282
2	62.69387	2	139.14982	2	215.60576	2	292.06171	2	368.51765	2	444.97360	2	521.42954	2	597.88549	2	674.34143	2	750.79738
3	63.45843	3	139.91438	3	216.37032	3	292.82627	3	369.28221	3	445.73816	3	522.19410	3	598.65005	3	675.10599	3	751.56193
4	64.22299	4	140.67894	4	217.13488	4	293.59083	4	370.04677	4	446.50272	4	522.95866	4	599.41461	4	675.87055	4	752.32649
5	64.98755	5	141.44350	5	217.89944	5	294.35539	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	371.57389	6	448.03153	6	524.48724	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	448.80632	7	525.25244	7	601.70528	7	678.16423	7	754.62017
8	67.28123	8	143.73718	8	220.19312	8	296.64906	8	373.10501	8	449.58095	8	526.01690	8	602.47284	8	678.92879	8	755.38473
9	68.04579	9	144.50174	9	220.95768	9	297.41362	9	373.86957	9	450.35007	9	526.78146	9	603.23740	9	679.69355	9	756.14929
90	68.81035	190	145.26629	290	221.72224	390	298.17818	490	374.63413	590	451.09007	690	527.54602	790	604.00196	890	680.45791	990	756.91385
1	69.57491	1	146.03065	1	222.48660	1	298.94274	1	375.39866	1	451.84463	1	528.31055	1	604.76652	1	681.22247	1	757.67841
2	70.33947	2	146.79541	2	223.25136	2	299.70730	2	376.16925	2	452.61076	2	529.07514	2	605.53082	2	681.98670	2	758.44367
3	71.10403	3	147.55997	3	224.01392	3	300.47186	3	376.92681	3	453.38375	3	529.84070	3	606.29563	3	682.75158	3	759.20753
4	71.86859	4	148.32453	4	224.78488	4	301.23642	4	377.69237	4	454.14831	4	530.60426	4	607.06020	4	683.51614	4	759.97209
5	72.63315	5	149.08909	5	225.54504	5	302.00098	5	378.45693	5	454.91287	5	531.36881	5	607.82476	5	684.28076	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	608.58932	6	685.04526	6	761.50121
7	74.16227	7	150.61821	7	227.07416	7	303.53010	7	379.98604	7	456.44199	7	532.89793	7	609.35887	7	685.80982	7	762.26577
8	74.92683	8	151.38277	8	227.83871	8	304.29466	8	380.75060	8	457.20655	8	533.66249	8	610.18444	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	610.88300	9	687.33894	9	763.79489

50	65.39714	150	196.19142	250	326.98569	350	457.77997	450	588.57425	550	719.36852	650	890.16280	750	980.95708	850	1,111.75136	950	1,242.54563
1	66.70508	1	197.49936	1	328.29364	1	459.08791	1	589.88219	1	720.67447	1	851.47074	1	932.26502	1	1,113.09530	1	1,243.83358
2	68.01302	2	198.80730	2	329.60158	2	460.39566	2	591.19013	2	721.98441	2	852.77869	2	933.57296	2	1,114.36724	2	1,245.16152
3	69.32097	3	200.11524	3	330.90952	3	461.70300	3	592.49028	3	723.29235	3	854.08663	3	934.88091	3	1,115.67518	3	1,246.46946
4	70.62891	4	201.42319	4	332.21746	4	463.01174	4	593.80602	4	724.60300	4	855.39457	4	936.18885	4	1,116.98313	4	1,247.77740
5	71.93685	5	202.73113	5	333.52541	5	464.31968	5	595.11396	5	725.90824	5	857.70252	5	937.49679	5	1,118.29107	5	1,249.08535
6	73.24480	6	204.03917	6	334.83335	6	465.62763	6	596.42196	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	728.52407	7	859.31840	7	939.12168	7	1,120.90696	7	1,251.70123
8	75.86068	8	206.65496	8	337.44924	8	468.24351	8	599.03779	8	729.83217	8	860.62634	8	940.42662	8	1,122.21490	8	1,253.00918
9	77.16862	9	207.96290	9	338.75718	9	469.55146	9	600.34573	9	731.14001	9	861.93429	9	942.72856	9	1,123.52284	9	1,254.31712
60	78.47657	160	207.27084	260	340.06512	360	470.85940	460	601.65368	560	732.44795	660	863.24223	760	994.03651	860	1,124.83078	960	1,255.62506
1	79.78451	1	210.57879	1	341.37306	1	472.16734	1	602.96162	1	733.75590	1	864.55017	1	995.34445	1	1,126.13873	1	1,256.93300
2	81.09245	2	211.88673	2	342.68101	2	473.47528	2	604.26956	2	735.06304	2	865.85812	2	996.65239	2	1,127.44667	2	1,258.24095
3	82.40039	3	213.19467	3	343.98950	3	474.78323	3	605.57750	3	736.37178	3	867.16606	3	997.96034	3	1,128.75461	3	1,259.54889
4	83.70834	4	214.50261	4	345.29689	4	476.09117	4	606.88545	4	737.67972	4	868.47404	4	999.26828	4	1,130.06256	4	1,260.85683
5	85.01628	5	215.81056	5	346.60483	5	477.39911	5	608.19339	5	738.98767	5	869.78190	5	1,000.57622	5	1,131.37050	5	1,262.16477
6	86.32422	6	217.11850	6	347.91278	6	478.70705	6	609.50133	6	740.29351	6	871.09599	6	1,001.88416	6	1,132.67844	6	1,263.47272
7	87.63217	7	218.42644	7	349.22072	7	480.01500	7	610.80927	7	741.60565	7	872.39783	7	1,003.19211	7	1,133.98638	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	1,004.50005	8	1,135.29433	8	1,266.08860
9	90.24805	9	221.04233	9	351.83661	9	482.63088	9	613.42316	9	744.21944	9	875.01371	9	1,005.80799	9	1,136.60227	9	1,267.39655
70	91.55599	170	222.35027	270	353.14455	370	483.93883	470	614.73310	570	745.52738	670	876.32166	770	1,007.11593	870	1,137.91021	970	1,268.70449
1	92.86394	1	223.65821	1	354.45249	1	485.24677	1	616.04105	1	746.83532	1	877.62960	1	1,008.42388	1	1,139.21815	1	1,270.01243
2	94.17188	2	224.96616	2	355.76043	2	486.55471	2	617.34909	2	748.14327	2	878.93754	2	1,009.73102	2	1,140.52610	2	1,271.32037
3	95.47982	3	226.27410	3	357.06838	3	487.86265	3	618.65693	3	749.45121	3	880.24549	3	1,011.03976	3	1,141.83404	3	1,272.62832
4	96.78777	4	227.58204	4	358.37632	4	489.17060	4	619.96487	4	750.75915	4	881.55343	4	1,012.34771	4	1,143.14198	4	1,273.93626
5	98.09571	5	228.88999	5	359.68426	5	490.47854	5	621.27282	5	752.06709	5	882.86137	5	1,013.65565	5	1,144.44993	5	1,275.24420
6	99.40365	6	230.19793	6	360.99221	6	491.78648	6	622.58076	6	753.37504	6	884.16931	6	1,014.96359	6	1,145.75787	6	1,276.55215
7	100.71159	7	231.50587	7	362.30015	7	493.09443	7	623.88870	7	754.68298	7	885.47726	7	1,016.27158	7	1,147.06381	7	1,277.86009
8	102.01954	8	232.81381	8	363.60809	8	494.40237	8	625.19665	8	755.99092	8	886.78520	8	1,017.57948	8	1,148.37375	8	1,279.16803
9	103.32748	9	234.12176	9	364.91603	9	495.71031	9	626.50459	9	757.29886	9	888.09314	9	1,018.8742	9	1,149.68170	9	1,280.47597
80	104.63542	180	235.42970	280	366.22398	380	497.01825	480	627.81253	580	758.60681	680	889.40108	780	1,020.19536	880	1,150.98964	980	1,281.78392
1	105.94336	1	236.73764	1	367.53192	1	498.32620	1	629.12047	1	759.91475	1	890.70903	1	1,021.50320	1	1,152.29758	1	1,283.09186
2	107.25131	2	238.04558	2	368.83956	2	499.63414	2	630.42424	2	761.22269	2	892.01697	2	1,022.81125	2	1,153.60552	2	1,284.39980
3	108.55925	3	239.35353	3	370.14700	3	500.94208	3	631.73636	3	762.53064	3	893.32491	3	1,024.11919	3	1,154.91347	3	1,285.70774
4	109.86719	4	240.66147	4	371.45575	4	502.25002	4	633.04430	4	763.83858	4	894.63286	4	1,025.42713	4	1,156.22141	4	1,287.01569
5	111.17514	5	241.96941	5	372.76369	5	503.55797	5	634.35224	5	765.14562	5	895.94080	5	1,026.73508	5	1,157.52935	5	1,288.32363
6	112.48308	6	243.27796	6	374.07163	6	504.86591	6	635.66019	6	766.45446	6	897.24874	6	1,028.04302	6	1,158.83730	6	1,289.63157
7	113.79102	7	244.58530	7	375.37958	7	506.17385	7	636.96813	7	767.76241	7	898.55668	7	1,029.35096	7	1,160.14524	7	1,290.93952
8	115.09896	8	245.89324	8	376.68752	8	507.48180	8	638.27607	8	769.07035	8	899.86463	8	1,030.65890	8	1,161.45318	8	1,292.24746
9	116.40691	9	247.20118	9	377.99546	9	508.78974	9	639.58402	9	770.37829	9	901.17257	9	1,031.96685	9	1,162.76112	9	1,293.55540
90	117.71485	190	248.50913	290	379.30340	390	510.09768	490	640.89196	590	771.68624	690	902.48031	790	1,034.27479	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	1,035.58273	1	1,165.37701	1	1,296.17129
2	120.33074	2	251.12501	2	381.91929	2	512.71357	2	643.50764	2	774.30212	2	905.09640	2	1,036.89068	2	1,166.68495	2	1,297.47923
3	121.63868	3	252.43295	3	383.22723	3	514.02151	3	644.81579	3	775.61006	3	906.40434	3	1,037.19862	3	1,167.99290	3	1,298.78717
4	122.94662	4	253.74090	4	384.53517	4	515.32945	4	646.12373	4	776.91801	4	907.71228	4	1,038.50556	4	1,169.30084	4	1,300.09512
5	124.25456	5	255.04884	5	385.84312	5	516.63739	5	647.43167	5	778.22595	5	909.02023	5	1,039.81450	5	1,170.60878	5	1,301.40306
6	125.56251	6	256.35678	6	387.15106	6	517.94534	6	648.73561	6	779.53153	6	910.32611	6	1,041.12245	6	1,171.91672	6	1,302.71100
7	126.87045	7	257.66473	7	388.45900	7	519.25328	7	650.04756	7	780.84339	7	911.63817	7	1,042.43039	7	1,173.22467	7	1,304.01894
8	128.17839	8	258.97267	8	389.76695	8	520.56122	8	651.35550	8	782.14978	8	912.94405	8	1,043.73833	8	1,174.53261	8	1,305.32689
9	129.48633	9	260.28061	9	391.07489	9	521.86917	9	652.66344	9	783.45772	9	914.25200	9	1,045.04627	9	1,175.84055	9	1,306.63483

CAPACITY—LIQUID QUARTS TO LITERS

[Reduction factor: 1 liquid quart=0.94633213 liter]

Liquid 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	Liters	Liquid quarts	Liters
0	0.9463	100	94.633	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	0.9463	1	95.580	1	190.213	1	284.846	1	379.479	1	474.112	1	568.746	1	663.379	1	758.012	1	852.645
2	1.8927	2	96.526	2	191.159	2	285.792	2	380.426	2	475.058	2	569.692	2	664.325	2	758.968	2	853.601
3	2.8390	3	97.472	3	192.105	3	286.739	3	381.372	3	476.005	3	570.638	3	665.271	3	759.914	3	854.547
4	3.7853	4	98.419	4	193.052	4	287.685	4	382.318	4	476.951	4	571.585	4	666.218	4	760.860	4	855.493
5	4.7317	5	99.365	5	194.000	5	288.631	5	383.265	5	477.898	5	572.531	5	667.164	5	761.807	5	856.439
6	5.6780	6	100.311	6	194.944	6	289.578	6	384.211	6	478.845	6	573.477	6	668.111	6	762.754	6	857.386
7	6.6243	7	101.258	7	195.891	7	290.524	7	385.157	7	479.792	7	574.424	7	669.057	7	763.700	7	858.332
8	7.5707	8	102.204	8	196.837	8	291.470	8	386.104	8	480.737	8	575.370	8	670.003	8	764.646	8	859.278
9	8.5170	9	103.150	9	197.783	9	292.417	9	387.050	9	481.683	9	576.316	9	670.949	9	765.593	9	860.224
10	9.4633	110	104.097	210	198.730	310	293.363	410	387.996	510	482.629	610	577.263	710	671.896	810	766.529	910	861.162
1	10.4097	1	105.043	1	199.676	1	294.309	1	388.943	1	483.576	1	578.209	1	672.832	1	767.475	1	862.109
2	11.3560	2	105.989	2	200.622	2	295.256	2	389.889	2	484.522	2	579.155	2	673.778	2	768.422	2	863.055
3	12.3023	3	106.936	3	201.568	3	296.202	3	390.835	3	485.468	3	580.102	3	674.725	3	769.368	3	864.001
4	13.2486	4	107.882	4	202.514	4	297.148	4	391.782	4	486.415	4	581.048	4	675.671	4	770.314	4	864.948
5	14.1949	5	108.828	5	203.460	5	298.094	5	392.728	5	487.361	5	581.994	5	676.617	5	771.261	5	865.894
6	15.1412	6	109.775	6	204.406	6	299.041	6	393.674	6	488.307	6	582.940	6	677.564	6	772.207	6	866.840
7	16.0875	7	110.721	7	205.352	7	299.987	7	394.620	7	489.254	7	583.887	7	678.510	7	773.153	7	867.787
8	17.0338	8	111.667	8	206.298	8	300.934	8	395.567	8	490.200	8	584.833	8	679.456	8	774.100	8	868.733
9	17.9803	9	112.614	9	207.247	9	301.880	9	396.513	9	491.146	9	585.780	9	680.403	9	775.046	9	869.679
20	18.9266	120	113.560	220	208.193	320	302.826	420	397.459	520	492.093	620	586.726	720	681.359	820	776.939	920	871.572
1	19.8730	1	114.506	1	209.139	1	303.773	1	398.406	1	493.039	1	587.672	1	682.305	1	777.885	1	872.518
2	20.8193	2	115.453	2	210.086	2	304.719	2	399.352	2	493.985	2	588.619	2	683.252	2	778.831	2	873.465
3	21.7656	3	116.399	3	211.032	3	305.665	3	400.298	3	494.932	3	589.565	3	684.198	3	779.778	3	874.411
4	22.7120	4	117.345	4	211.978	4	306.612	4	401.245	4	495.878	4	590.511	4	685.144	4	780.724	4	875.357
5	23.6583	5	118.292	5	212.925	5	307.558	5	402.191	5	496.824	5	591.458	5	686.091	5	781.670	5	876.304
6	24.6046	6	119.238	6	213.871	6	308.504	6	403.137	6	497.771	6	592.404	6	687.037	6	782.617	6	877.250
7	25.5510	7	120.184	7	214.817	7	309.451	7	404.084	7	498.717	7	593.350	7	687.983	7	783.563	7	878.196
8	26.4973	8	121.131	8	215.764	8	310.397	8	405.030	8	499.663	8	594.297	8	688.930	8	784.509	8	879.143
9	27.4436	9	122.077	9	216.710	9	311.343	9	405.976	9	500.610	9	595.243	9	689.876	9	785.456	9	880.089
30	28.3900	130	123.023	230	217.656	330	312.290	430	406.923	530	501.556	630	596.189	730	690.822	830	785.456	930	881.035
1	29.3363	1	123.970	1	218.603	1	313.236	1	407.869	1	502.502	1	597.136	1	691.769	1	786.402	1	881.982
2	30.2826	2	124.916	2	219.549	2	314.182	2	408.815	2	503.448	2	598.082	2	692.715	2	787.348	2	882.928
3	31.2290	3	125.862	3	220.495	3	315.129	3	409.762	3	504.395	3	599.028	3	693.661	3	788.295	3	883.874
4	32.1753	4	126.809	4	221.442	4	316.075	4	410.708	4	505.341	4	599.975	4	694.608	4	789.241	4	884.821
5	33.1216	5	127.755	5	222.388	5	317.021	5	411.654	5	506.288	5	600.921	5	695.554	5	790.187	5	885.767
6	34.0680	6	128.701	6	223.334	6	317.968	6	412.601	6	507.234	6	601.867	6	696.500	6	791.134	6	886.713
7	35.0143	7	129.648	7	224.281	7	318.914	7	413.547	7	508.180	7	602.814	7	697.447	7	792.080	7	887.660
8	35.9606	8	130.594	8	225.227	8	319.860	8	414.493	8	509.127	8	603.760	8	698.393	8	793.026	8	888.606
9	36.9070	9	131.540	9	226.173	9	320.807	9	415.440	9	510.073	9	604.706	9	699.339	9	793.973	9	889.552
40	37.8533	140	132.486	240	227.120	340	321.753	440	416.386	540	511.019	640	605.653	740	700.286	840	794.919	940	890.499
1	38.7996	1	133.433	1	228.066	1	322.699	1	417.332	1	511.966	1	606.599	1	701.232	1	795.865	1	891.445
2	39.7459	2	134.379	2	229.012	2	323.646	2	418.279	2	512.912	2	607.545	2	702.178	2	796.812	2	892.391
3	40.6923	3	135.325	3	229.959	3	324.592	3	419.225	3	513.858	3	608.492	3	703.125	3	797.758	3	893.338
4	41.6386	4	136.272	4	230.905	4	325.538	4	420.171	4	514.805	4	609.438	4	704.071	4	798.704	4	894.284
5	42.5849	5	137.218	5	231.851	5	326.485	5	421.118	5	515.751	5	610.384	5	705.017	5	799.651	5	895.230
6	43.5313	6	138.164	6	232.798	6	327.431	6	422.064	6	516.697	6	611.331	6	705.964	6	800.597	6	896.177
7	44.4776	7	139.111	7	233.744	7	328.377	7	423.010	7	517.644	7	612.277	7	706.910	7	801.543	7	897.123
8	45.4239	8	140.057	8	234.690	8	329.324	8	423.957	8	518.590	8	613.223	8	707.856	8	802.490	8	898.069
9	46.3703	9	141.003	9	235.637	9	330.270	9	424.903	9	519.536	9	614.170	9	708.803	9	803.436	9	899.015

50	47, 3166 1 48, 2629 2 49, 2093 3 50, 1556 4 51, 1019 5 52, 0483 6 53, 9949 7 54, 8873 8 55, 8836 9 56, 7799	141 950 1 142, 896 2 143, 842 3 144, 789 4 145, 735 5 146, 681 6 147, 628 7 148, 574 8 149, 520 9 150, 467	250 236, 583 1 237, 529 2 238, 476 3 239, 422 4 240, 368 5 241, 315 6 242, 261 7 243, 207 8 244, 154 9 245, 100	350 331, 216 1 332, 163 2 333, 109 3 334, 055 4 335, 002 5 335, 948 6 336, 894 7 337, 841 8 338, 787 9 339, 733	450 425, 849 1 426, 796 2 427, 742 3 428, 688 4 429, 635 5 430, 581 6 431, 527 7 432, 474 8 433, 420 9 434, 366	550 520, 483 1 521, 429 2 522, 375 3 523, 322 4 524, 268 5 525, 214 6 526, 161 7 527, 107 8 528, 053 9 529, 000	650 615, 116 1 616, 062 2 617, 009 3 617, 955 4 618, 901 5 619, 848 6 620, 794 7 621, 740 8 622, 687 9 623, 633	750 709, 749 1 710, 695 2 711, 642 3 712, 588 4 713, 534 5 714, 481 6 715, 427 7 716, 373 8 717, 320 9 718, 266	850 804, 382 1 805, 329 2 806, 275 3 807, 221 4 808, 168 5 809, 114 6 810, 060 7 811, 007 8 811, 953 9 812, 899	950 899, 016 1 899, 962 2 900, 908 3 901, 855 4 902, 801 5 903, 747 6 904, 694 7 905, 640 8 906, 586 9 907, 533
60	56, 7799 1 57, 7263 2 58, 6726 3 59, 6189 4 60, 5653 5 61, 5116 6 62, 4579 7 63, 4043 8 64, 3506 9 65, 2969	160 151, 413 1 152, 359 2 153, 306 3 154, 252 4 155, 198 5 156, 145 6 157, 091 7 158, 037 8 158, 984 9 159, 930	260 246, 046 1 246, 993 2 247, 939 3 248, 885 4 249, 832 5 250, 778 6 251, 724 7 252, 671 8 253, 617 9 254, 563	360 340, 680 1 341, 626 2 342, 572 3 343, 519 4 344, 465 5 345, 411 6 346, 358 7 347, 304 8 348, 251 9 349, 197	460 435, 313 1 436, 259 2 437, 205 3 438, 152 4 439, 098 5 440, 044 6 440, 991 7 441, 937 8 442, 883 9 443, 830	560 529, 946 1 530, 892 2 531, 838 3 532, 785 4 533, 731 5 534, 678 6 535, 624 7 536, 570 8 537, 517 9 538, 463	660 624, 579 1 625, 526 2 626, 472 3 627, 418 4 628, 365 5 629, 311 6 630, 257 7 631, 204 8 632, 150 9 633, 096	760 719, 212 1 720, 159 2 721, 105 3 722, 051 4 722, 998 5 723, 944 6 724, 890 7 725, 837 8 726, 783 9 727, 729	860 813, 846 1 814, 792 2 815, 738 3 816, 685 4 817, 631 5 818, 577 6 819, 524 7 820, 470 8 821, 416 9 822, 363	960 908, 479 1 909, 425 2 910, 372 3 911, 318 4 912, 264 5 913, 211 6 914, 157 7 915, 103 8 916, 050 9 916, 996
70	66, 2432 1 67, 1896 2 68, 1359 3 69, 0822 4 70, 0286 5 70, 9749 6 71, 9212 7 72, 8676 8 73, 8139 9 74, 7602	170 160, 876 1 161, 823 2 162, 769 3 163, 715 4 164, 662 5 165, 608 6 166, 554 7 167, 501 8 168, 447 9 169, 393	270 255, 510 1 256, 456 2 257, 402 3 258, 349 4 259, 295 5 260, 241 6 261, 188 7 262, 134 8 263, 080 9 264, 027	370 351, 049 1 352, 036 2 353, 023 3 354, 010 4 355, 028 5 356, 046 6 357, 064 7 358, 082 8 359, 100 9 360, 118	470 445, 776 1 446, 722 2 447, 669 3 448, 615 4 449, 561 5 449, 508 6 450, 454 7 451, 400 8 452, 347 9 453, 293	570 549, 409 1 550, 356 2 551, 302 3 552, 248 4 553, 195 5 554, 141 6 555, 087 7 556, 034 8 557, 080 9 558, 026	670 634, 043 1 634, 989 2 635, 935 3 636, 882 4 637, 828 5 638, 774 6 639, 721 7 640, 667 8 641, 613 9 642, 560	770 728, 676 1 729, 622 2 730, 568 3 731, 515 4 732, 461 5 733, 407 6 734, 354 7 735, 300 8 736, 246 9 737, 193	870 823, 309 1 824, 255 2 825, 202 3 826, 148 4 827, 094 5 828, 041 6 828, 987 7 829, 933 8 830, 880 9 831, 826	970 917, 942 1 918, 888 2 919, 835 3 920, 781 4 921, 727 5 922, 674 6 923, 620 7 924, 566 8 925, 513 9 926, 459
80	75, 7066 1 76, 6529 2 77, 5992 3 78, 5455 4 79, 4919 5 80, 4382 6 81, 3846 7 82, 3309 8 83, 2772 9 84, 2236	180 170, 340 1 171, 286 2 172, 232 3 173, 179 4 174, 125 5 175, 071 6 176, 018 7 176, 964 8 177, 910 9 178, 857	280 264, 973 1 265, 919 2 266, 865 3 267, 812 4 268, 758 5 269, 705 6 270, 651 7 271, 597 8 272, 544 9 273, 490	380 359, 606 1 360, 553 2 361, 499 3 362, 445 4 363, 392 5 364, 338 6 365, 284 7 366, 231 8 367, 177 9 368, 123	480 454, 239 1 455, 186 2 456, 132 3 457, 078 4 458, 025 5 458, 971 6 459, 917 7 460, 864 8 461, 810 9 462, 756	580 548, 873 1 549, 819 2 550, 765 3 551, 712 4 552, 658 5 553, 604 6 554, 551 7 555, 497 8 556, 443 9 557, 390	680 643, 506 1 644, 452 2 645, 399 3 646, 345 4 647, 291 5 648, 238 6 649, 184 7 650, 130 8 651, 077 9 652, 023	780 738, 139 1 739, 085 2 740, 032 3 740, 978 4 741, 924 5 742, 871 6 743, 817 7 744, 763 8 745, 710 9 746, 656	880 832, 772 1 833, 719 2 834, 665 3 835, 611 4 836, 558 5 837, 504 6 838, 450 7 839, 397 8 840, 343 9 841, 289	980 927, 405 1 928, 352 2 929, 298 3 930, 244 4 931, 191 5 932, 137 6 933, 083 7 934, 030 8 940, 976 9 935, 922
90	85, 1699 1 86, 1162 2 87, 0626 3 88, 0089 4 89, 0552 5 90, 0016 6 90, 9479 7 91, 7942 8 92, 7405 9 93, 6869	190 179, 803 1 180, 749 2 181, 696 3 182, 642 4 183, 588 5 184, 535 6 185, 481 7 186, 427 8 187, 374 9 188, 320	290 274, 436 1 275, 383 2 276, 329 3 277, 275 4 278, 222 5 279, 168 6 280, 114 7 281, 061 8 282, 007 9 282, 953	390 369, 070 1 370, 016 2 370, 962 3 371, 909 4 372, 855 5 373, 801 6 374, 748 7 375, 694 8 376, 640 9 377, 587	490 463, 703 1 464, 649 2 465, 595 3 466, 542 4 467, 488 5 468, 434 6 469, 381 7 470, 327 8 471, 273 9 472, 220	590 558, 336 1 559, 282 2 560, 229 3 561, 175 4 562, 121 5 563, 068 6 564, 014 7 564, 960 8 565, 907 9 566, 853	690 652, 969 1 653, 916 2 654, 862 3 655, 808 4 656, 754 5 657, 701 6 658, 647 7 659, 593 8 660, 540 9 661, 486	790 747, 602 1 748, 549 2 749, 495 3 750, 441 4 751, 388 5 752, 334 6 753, 280 7 754, 227 8 755, 173 9 756, 119	890 842, 236 1 843, 182 2 844, 128 3 845, 075 4 846, 021 5 846, 967 6 847, 914 7 848, 860 8 849, 806 9 850, 753	990 936, 869 1 937, 815 2 938, 761 3 939, 708 4 940, 654 5 941, 600 6 942, 547 7 943, 493 8 944, 439 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	Liters	Liquid quarts		
0	1.05671	100	105.671	200	211.342	300	317.013	400	422.685	500	528.356	600	634.027	700	739.698	800	845.369	900	951.040
1	106.728	1	106.728	1	212.399	1	318.070	1	423.741	1	529.412	1	635.084	1	740.755	1	846.426	1	952.097
2	113.54	2	113.54	2	213.456	2	319.127	2	424.798	2	530.469	2	636.140	2	741.811	2	847.482	2	953.154
3	117.01	3	117.01	3	214.512	3	320.184	3	425.855	3	531.526	3	637.197	3	742.868	3	848.539	3	954.210
4	120.88	4	120.88	4	215.569	4	321.240	4	426.911	4	532.583	4	638.254	4	743.925	4	849.596	4	955.267
5	124.36	5	124.36	5	216.626	5	322.297	5	427.968	5	533.639	5	639.310	5	744.982	5	850.653	5	956.324
6	128.303	6	128.303	6	217.683	6	323.354	6	429.025	6	534.696	6	640.367	6	746.038	6	851.709	6	957.381
7	131.78	7	131.78	7	218.739	7	324.410	7	430.082	7	535.753	7	641.424	7	747.095	7	852.766	7	958.437
8	135.737	8	135.737	8	219.796	8	325.467	8	431.138	8	536.809	8	642.481	8	748.152	8	853.823	8	959.494
9	139.5104	9	139.5104	9	220.853	9	326.524	9	432.195	9	537.866	9	643.537	9	749.208	9	854.880	9	960.551
10	143.5671	110	116.238	210	221.909	310	327.581	410	433.252	510	538.923	610	644.594	710	750.265	810	855.936	910	961.607
11	147.6238	1	117.295	1	222.966	1	328.637	1	434.308	1	539.980	1	645.651	1	751.322	1	856.993	1	962.664
12	151.6805	2	118.352	2	224.023	2	329.694	2	435.365	2	541.036	2	646.707	2	752.379	2	858.050	2	963.721
13	155.7372	3	119.408	3	225.080	3	330.751	3	436.422	3	542.093	3	647.764	3	753.435	3	859.106	3	964.778
14	159.7939	4	120.465	4	226.136	4	331.807	4	437.479	4	543.150	4	648.821	4	754.492	4	860.163	4	965.834
15	163.8506	5	121.521	5	227.193	5	332.864	5	438.535	5	544.206	5	649.878	5	755.549	5	861.220	5	966.891
16	167.9073	6	122.578	6	228.250	6	333.921	6	439.592	6	545.263	6	650.934	6	756.602	6	862.277	6	967.948
17	171.9640	7	123.635	7	229.306	7	334.978	7	440.649	7	546.320	7	651.991	7	757.662	7	863.333	7	969.004
18	176.0207	8	124.692	8	230.363	8	336.035	8	441.705	8	547.377	8	653.048	8	758.719	8	864.390	8	970.061
19	180.0774	9	125.749	9	231.420	9	337.091	9	442.762	9	548.433	9	654.104	9	759.776	9	865.447	9	971.118
20	184.1342	120	126.805	220	232.477	320	338.148	420	443.819	520	549.490	620	655.161	720	760.832	820	866.503	920	972.175
1	188.1909	1	127.862	1	233.533	1	339.204	1	444.875	1	550.547	1	656.218	1	761.889	1	867.560	1	973.231
2	192.2477	2	128.919	2	234.590	2	340.261	2	445.932	2	551.603	2	657.275	2	762.946	2	868.617	2	974.288
3	196.3044	3	129.976	3	235.647	3	341.318	3	446.989	3	552.659	3	658.338	3	764.002	3	869.674	3	975.345
4	200.3611	4	131.032	4	236.703	4	342.375	4	448.046	4	553.716	4	659.398	4	765.059	4	870.730	4	976.401
5	204.4178	5	132.089	5	237.760	5	343.431	5	449.102	5	554.774	5	660.445	5	766.116	5	871.787	5	977.458
6	208.4745	6	133.146	6	238.817	6	344.488	6	450.159	6	555.830	6	661.501	6	767.175	6	872.844	6	978.515
7	212.5312	7	134.202	7	239.874	7	345.545	7	451.216	7	556.887	7	662.578	7	768.232	7	873.901	7	979.572
8	216.5879	8	135.259	8	240.930	8	346.601	8	452.273	8	557.944	8	663.635	8	769.286	8	874.957	8	980.629
9	220.6446	9	136.316	9	241.987	9	347.658	9	453.329	9	559.000	9	664.692	9	770.343	9	876.014	9	981.685
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	930	982.742
1	32.7581	1	138.429	1	244.100	1	349.772	1	455.443	1	561.114	1	666.785	1	772.456	1	878.127	1	983.798
2	33.8148	2	139.486	2	245.157	2	350.828	2	456.499	2	562.171	2	667.842	2	773.513	2	879.184	2	984.855
3	34.8715	3	140.543	3	246.214	3	351.885	3	457.556	3	563.227	3	668.898	3	774.570	3	880.241	3	985.912
4	35.9282	4	141.599	4	247.270	4	352.942	4	458.613	4	564.284	4	669.955	4	775.626	4	881.297	4	986.969
5	36.9849	5	142.656	5	248.327	5	353.998	5	459.670	5	565.341	5	671.012	5	776.683	5	882.354	5	988.025
6	38.0416	6	143.713	6	249.384	6	355.055	6	460.726	6	566.397	6	672.069	6	777.740	6	883.411	6	989.082
7	39.0983	7	144.769	7	250.441	7	356.112	7	461.783	7	567.454	7	673.125	7	778.796	7	884.468	7	990.139
8	40.1550	8	145.826	8	251.497	8	357.168	8	462.840	8	568.511	8	674.182	8	779.853	8	885.524	8	991.195
9	41.2117	9	146.883	9	252.554	9	358.225	9	463.896	9	569.567	9	675.239	9	780.910	9	886.581	9	992.252
40	42.2685	140	147.940	240	253.611	340	359.282	440	464.953	540	570.624	640	676.295	740	781.967	840	887.638	940	993.309
1	43.3252	1	148.996	1	254.667	1	360.339	1	466.010	1	571.681	1	677.352	1	783.021	1	888.694	1	994.366
2	44.3819	2	150.053	2	255.724	2	361.395	2	467.066	2	572.738	2	678.409	2	784.080	2	889.751	2	995.422
3	45.4386	3	151.110	3	256.781	3	362.452	3	468.123	3	573.794	3	679.465	3	785.137	3	890.808	3	996.479
4	46.4953	4	152.166	4	257.838	4	363.509	4	469.180	4	574.851	4	680.522	4	786.195	4	891.865	4	997.536
5	47.5520	5	153.223	5	258.894	5	364.565	5	470.237	5	575.908	5	681.579	5	787.250	5	892.921	5	998.592
6	48.6087	6	154.280	6	259.951	6	365.622	6	471.293	6	576.964	6	682.636	6	788.303	6	893.978	6	999.649
7	49.6654	7	155.337	7	261.008	7	366.679	7	472.350	7	578.021	7	683.692	7	789.363	7	895.035	7	1,000.706
8	50.7222	8	156.393	8	262.064	8	367.736	8	473.407	8	579.078	8	684.749	8	790.420	8	896.091	8	1,001.763
9	51.7789	9	157.450	9	263.121	9	368.792	9	474.463	9	580.135	9	685.806	9	791.477	9	897.148	9	1,002.819

50	52.8356	150	158.507	250	264.178	350	369.849	450	475.520	550	581.191	650	686.862	750	792.534	850	898.205	950	1,003.876
1	53.8923	1	159.563	1	265.235	1	370.906	1	476.577	1	582.248	1	687.919	1	793.590	1	899.261	1	1,004.933
2	54.9490	2	160.620	2	266.291	2	371.962	2	477.634	2	583.301	2	688.976	2	794.647	2	900.318	2	1,005.989
3	56.0057	3	161.677	3	267.348	3	373.019	3	478.690	3	584.366	3	690.033	3	795.704	3	901.375	3	1,007.046
4	57.0624	4	162.734	4	268.405	4	374.076	4	479.747	4	585.418	4	691.089	4	796.760	4	902.438	4	1,008.103
5	58.1191	5	163.790	5	269.461	5	375.133	5	480.804	5	586.475	5	692.146	5	797.817	5	903.482	5	1,009.159
6	59.1758	6	164.847	6	270.518	6	376.189	6	481.860	6	587.532	6	693.203	6	798.874	6	904.545	6	1,010.216
7	60.2326	7	165.904	7	271.575	7	377.246	7	482.917	7	588.588	7	694.259	7	799.931	7	905.602	7	1,011.273
8	61.2893	8	166.960	8	272.632	8	378.303	8	483.974	8	589.645	8	695.316	8	800.987	8	906.658	8	1,012.330
9	62.3460	9	168.017	9	273.688	9	379.359	9	485.031	9	590.702	9	696.373	9	802.044	9	907.715	9	1,013.386
60	63.4027	160	169.074	260	274.745	360	380.416	460	486.087	560	591.758	660	697.430	760	803.101	860	908.772	960	1,014.443
1	64.4594	1	170.131	1	275.802	1	381.473	1	487.144	1	592.815	1	698.486	1	804.157	1	909.829	1	1,015.500
2	65.5161	2	171.187	2	276.858	2	382.530	2	488.201	2	593.872	2	699.543	2	805.214	2	910.885	2	1,016.556
3	66.5728	3	172.244	3	277.915	3	383.586	3	489.257	3	594.929	3	700.606	3	806.271	3	911.942	3	1,017.613
4	67.6295	4	173.301	4	278.972	4	384.643	4	490.314	4	595.985	4	701.656	4	807.328	4	912.999	4	1,018.670
5	68.6862	5	174.357	5	280.029	5	385.700	5	491.371	5	597.042	5	702.713	5	808.384	5	914.055	5	1,019.727
6	69.7430	6	175.414	6	281.085	6	386.756	6	492.428	6	598.099	6	703.770	6	809.441	6	915.112	6	1,020.783
7	70.7997	7	176.471	7	282.142	7	387.813	7	493.484	7	599.155	7	704.827	7	810.498	7	916.169	7	1,021.840
8	71.8564	8	177.528	8	283.199	8	388.870	8	494.541	8	600.212	8	705.883	8	811.554	8	917.226	8	1,022.897
9	72.9131	9	178.584	9	284.255	9	389.927	9	495.598	9	601.269	9	706.940	9	812.611	9	918.282	9	1,023.953
70	73.9698	170	179.641	270	285.312	370	390.983	470	496.654	570	602.326	670	707.997	770	813.668	870	919.339	970	1,025.010
1	75.0265	1	180.698	1	286.369	1	392.040	1	497.711	1	603.382	1	709.053	1	814.725	1	920.396	1	1,026.067
2	76.0832	2	181.754	2	287.426	2	393.097	2	498.768	2	604.439	2	710.110	2	815.781	2	921.452	2	1,027.124
3	77.1399	3	182.811	3	288.482	3	394.153	3	499.825	3	605.496	3	711.167	3	816.838	3	922.509	3	1,028.180
4	78.1967	4	183.868	4	289.539	4	395.210	4	500.881	4	606.552	4	712.224	4	817.895	4	923.566	4	1,029.237
5	79.2534	5	184.925	5	290.596	5	396.267	5	501.938	5	607.609	5	713.280	5	818.951	5	924.623	5	1,030.294
6	80.3101	6	185.981	6	291.652	6	397.324	6	502.995	6	608.666	6	714.337	6	820.008	6	925.679	6	1,031.350
7	81.3668	7	187.038	7	292.709	7	398.380	7	504.051	7	609.723	7	715.394	7	821.065	7	926.736	7	1,032.407
8	82.4235	8	188.095	8	293.766	8	399.437	8	505.108	8	610.779	8	716.450	8	822.122	8	927.793	8	1,033.464
9	83.4802	9	189.151	9	294.823	9	400.494	9	506.165	9	611.836	9	717.507	9	823.178	9	928.849	9	1,034.521
80	84.5369	180	190.208	280	295.879	380	401.550	480	507.222	580	612.893	680	718.564	780	824.235	880	929.906	980	1,035.577
1	85.5936	1	191.265	1	296.936	1	402.607	1	508.278	1	613.949	1	719.621	1	825.292	1	930.963	1	1,036.634
2	86.6503	2	192.321	2	297.993	2	403.664	2	509.335	2	615.006	2	720.677	2	826.348	2	932.020	2	1,037.691
3	87.7071	3	193.378	3	299.049	3	404.721	3	510.392	3	616.063	3	721.734	3	827.405	3	933.076	3	1,038.747
4	88.7638	4	194.435	4	300.106	4	405.777	4	511.448	4	617.120	4	722.791	4	828.462	4	934.133	4	1,039.804
5	89.8205	5	195.492	5	301.163	5	406.834	5	512.505	5	618.176	5	723.847	5	829.519	5	935.190	5	1,040.861
6	90.8772	6	196.548	6	302.219	6	407.891	6	513.562	6	619.233	6	724.904	6	830.575	6	936.246	6	1,041.918
7	91.9339	7	197.605	7	303.276	7	408.947	7	514.619	7	620.290	7	725.961	7	831.632	7	937.303	7	1,042.974
8	92.9906	8	198.662	8	304.333	8	410.004	8	515.675	8	621.346	8	727.018	8	832.689	8	938.360	8	1,044.031
9	94.0473	9	199.718	9	305.390	9	411.061	9	516.732	9	622.403	9	728.074	9	833.745	9	939.417	9	1,045.088
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	990	1,046.144
1	96.1607	1	201.832	1	307.503	1	413.174	1	518.845	1	624.516	1	730.188	1	835.859	1	941.530	1	1,047.201
2	97.2175	2	202.889	2	308.560	2	414.231	2	519.902	2	625.573	2	731.244	2	836.916	2	942.587	2	1,048.258
3	98.2742	3	203.945	3	309.616	3	415.288	3	520.959	3	626.630	3	732.301	3	837.972	3	943.643	3	1,049.315
4	99.3309	4	205.002	4	310.673	4	416.344	4	522.015	4	627.687	4	733.358	4	839.029	4	944.700	4	1,050.371
5	100.3876	5	206.059	5	311.730	5	417.401	5	523.072	5	628.743	5	734.414	5	840.086	5	945.757	5	1,051.428
6	101.4443	6	207.115	6	312.787	6	418.458	6	524.129	6	629.800	6	735.471	6	841.142	6	946.814	6	1,052.485
7	102.5010	7	208.172	7	313.843	7	419.514	7	525.186	7	630.857	7	736.528	7	842.199	7	947.870	7	1,053.541
8	103.5577	8	209.229	8	314.900	8	420.571	8	526.242	8	631.913	8	737.585	8	843.256	8	948.927	8	1,054.598
9	104.6144	9	210.286	9	315.957	9	421.628	9	527.299	9	632.970	9	738.641	9	844.312	9	949.984	9	1,055.655

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	3.7853	100	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	3.7853	1	382.318	1	760.851	1	1,139.384	1	1,517.917	1	1,896.450	1	2,274.982	1	2,653.515	1	3,032.048	1	3,410.581
2	7.5707	2	764.636	2	1,521.702	2	2,278.768	2	3,035.833	2	3,822.872	2	4,610.972	2	5,389.964	2	6,158.008	2	6,935.052
3	11.3560	3	1,141.954	3	2,278.768	3	3,035.833	3	3,822.872	3	4,610.972	3	5,389.964	3	6,158.008	3	6,935.052	3	7,706.096
4	15.1413	4	1,515.941	4	2,278.768	4	3,035.833	4	3,822.872	4	4,610.972	4	5,389.964	4	6,158.008	4	6,935.052	4	7,706.096
5	18.9266	5	1,892.926	5	2,278.768	5	3,035.833	5	3,822.872	5	4,610.972	5	5,389.964	5	6,158.008	5	6,935.052	5	7,706.096
6	22.7120	6	2,271.197	6	2,278.768	6	3,035.833	6	3,822.872	6	4,610.972	6	5,389.964	6	6,158.008	6	6,935.052	6	7,706.096
7	26.4973	7	2,649.730	7	2,278.768	7	3,035.833	7	3,822.872	7	4,610.972	7	5,389.964	7	6,158.008	7	6,935.052	7	7,706.096
8	30.2826	8	3,028.263	8	2,278.768	8	3,035.833	8	3,822.872	8	4,610.972	8	5,389.964	8	6,158.008	8	6,935.052	8	7,706.096
9	34.0679	9	3,406.796	9	2,278.768	9	3,035.833	9	3,822.872	9	4,610.972	9	5,389.964	9	6,158.008	9	6,935.052	9	7,706.096
10	37.8533	110	416.386	210	794.919	310	1,173.452	410	1,551.985	510	1,930.518	610	2,309.050	710	2,687.583	810	3,066.116	910	3,444.649
1	41.6386	1	420.171	1	798.704	1	1,177.237	1	1,555.770	1	1,934.303	1	2,312.836	1	2,691.369	1	3,069.901	1	3,448.434
2	45.4239	2	423.957	2	802.490	2	1,181.022	2	1,559.555	2	1,938.088	2	2,316.621	2	2,695.154	2	3,073.687	2	3,452.220
3	49.2093	3	427.742	3	806.275	3	1,184.808	3	1,563.341	3	1,941.874	3	2,320.406	3	2,698.939	3	3,077.472	3	3,456.005
4	52.9946	4	431.527	4	810.060	4	1,188.593	4	1,567.126	4	1,945.659	4	2,324.192	4	2,702.725	4	3,081.257	4	3,459.790
5	56.7799	5	435.313	5	813.846	5	1,192.378	5	1,570.911	5	1,949.444	5	2,327.977	5	2,706.510	5	3,085.043	5	3,463.576
6	60.5653	6	439.098	6	817.631	6	1,196.164	6	1,574.697	6	1,953.230	6	2,331.762	6	2,710.295	6	3,088.828	6	3,467.361
7	64.3506	7	442.883	7	821.416	7	1,199.949	7	1,578.482	7	1,957.015	7	2,335.548	7	2,714.081	7	3,092.613	7	3,471.146
8	68.1359	8	446.669	8	825.202	8	1,203.734	8	1,582.267	8	1,960.800	8	2,339.333	8	2,717.866	8	3,096.399	8	3,475.932
9	71.9212	9	450.454	9	828.987	9	1,207.520	9	1,586.053	9	1,964.585	9	2,343.118	9	2,721.651	9	3,100.184	9	3,479.717
20	75.7066	120	454.239	220	832.772	320	1,211.305	420	1,589.838	520	1,968.371	620	2,346.904	720	2,725.437	820	3,103.969	920	3,482.502
1	79.4919	1	458.025	1	836.558	1	1,215.090	1	1,593.623	1	1,972.156	1	2,350.689	1	2,729.222	1	3,107.755	1	3,486.288
2	83.2772	2	461.810	2	840.343	2	1,218.876	2	1,597.409	2	1,975.941	2	2,354.474	2	2,733.007	2	3,111.540	2	3,490.073
3	87.0626	3	465.595	3	844.128	3	1,222.661	3	1,601.194	3	1,979.727	3	2,358.260	3	2,736.793	3	3,115.325	3	3,493.858
4	90.8479	4	469.381	4	847.914	4	1,226.446	4	1,604.979	4	1,983.512	4	2,362.045	4	2,740.578	4	3,119.111	4	3,497.644
5	94.6332	5	473.166	5	851.699	5	1,230.232	5	1,608.765	5	1,987.297	5	2,365.830	5	2,744.363	5	3,122.896	5	3,501.429
6	98.4185	6	476.951	6	855.484	6	1,234.017	6	1,612.550	6	1,991.083	6	2,369.616	6	2,748.148	6	3,126.681	6	3,505.214
7	102.2039	7	480.737	7	859.270	7	1,237.802	7	1,616.335	7	1,994.868	7	2,373.401	7	2,751.934	7	3,130.467	7	3,509.000
8	105.9892	8	484.522	8	863.055	8	1,241.588	8	1,620.121	8	1,998.653	8	2,377.186	8	2,755.719	8	3,134.252	8	3,512.785
9	109.7745	9	488.307	9	866.840	9	1,245.373	9	1,623.906	9	2,002.439	9	2,380.972	9	2,759.504	9	3,138.037	9	3,516.570
30	113.5599	130	492.093	230	870.626	330	1,249.158	430	1,627.691	530	2,006.224	630	2,346.757	730	2,725.290	830	3,141.823	930	3,520.356
1	117.3452	1	495.878	1	874.411	1	1,252.944	1	1,631.477	1	2,010.009	1	2,388.542	1	2,767.075	1	3,145.608	1	3,524.141
2	121.1305	2	499.663	2	878.196	2	1,256.729	2	1,635.262	2	2,013.795	2	2,392.328	2	2,770.860	2	3,149.393	2	3,527.926
3	124.9158	3	503.449	3	881.982	3	1,260.514	3	1,639.047	3	2,017.580	3	2,396.113	3	2,774.646	3	3,153.179	3	3,531.711
4	128.7012	4	507.234	4	885.767	4	1,264.300	4	1,642.833	4	2,021.365	4	2,399.898	4	2,778.431	4	3,156.964	4	3,535.497
5	132.4865	5	511.019	5	889.552	5	1,268.085	5	1,646.618	5	2,025.151	5	2,403.684	5	2,782.216	5	3,160.749	5	3,539.282
6	136.2718	6	514.805	6	893.338	6	1,271.870	6	1,650.403	6	2,028.936	6	2,407.469	6	2,786.002	6	3,164.535	6	3,543.067
7	140.0572	7	518.590	7	897.123	7	1,275.656	7	1,654.189	7	2,032.721	7	2,411.254	7	2,789.787	7	3,168.320	7	3,546.853
8	143.8425	8	522.375	8	900.908	8	1,279.441	8	1,657.974	8	2,036.507	8	2,415.040	8	2,793.572	8	3,172.105	8	3,550.638
9	147.6278	9	526.161	9	904.694	9	1,283.226	9	1,661.759	9	2,040.292	9	2,418.825	9	2,797.358	9	3,175.891	9	3,554.423
40	151.4131	140	529.946	240	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
1	155.1985	1	533.731	1	912.264	1	1,290.797	1	1,669.330	1	2,047.863	1	2,430.386	1	2,804.928	1	3,183.461	1	3,561.994
2	158.9838	2	537.517	2	916.049	2	1,294.582	2	1,673.115	2	2,051.648	2	2,434.171	2	2,808.714	2	3,187.247	2	3,565.779
3	162.7691	3	541.302	3	919.835	3	1,298.368	3	1,676.901	3	2,055.433	3	2,437.956	3	2,812.500	3	3,191.032	3	3,569.565
4	166.5545	4	545.087	4	923.620	4	1,302.153	4	1,680.686	4	2,059.219	4	2,441.741	4	2,816.284	4	3,194.817	4	3,573.350
5	170.3398	5	548.873	5	927.405	5	1,305.938	5	1,684.471	5	2,063.004	5	2,445.527	5	2,820.070	5	3,198.603	5	3,577.135
6	174.1251	6	552.658	6	931.191	6	1,309.724	6	1,688.257	6	2,066.789	6	2,449.312	6	2,823.855	6	3,202.388	6	3,580.921
7	177.9104	7	556.443	7	934.976	7	1,313.509	7	1,692.042	7	2,070.575	7	2,453.100	7	2,827.640	7	3,206.173	7	3,584.706
8	181.6958	8	560.229	8	938.761	8	1,317.329	8	1,695.827	8	2,074.360	8	2,456.885	8	2,831.426	8	3,209.959	8	3,588.491
9	185.4811	9	564.014	9	942.547	9	1,321.114	9	1,699.612	9	2,078.145	9	2,460.670	9	2,835.211	9	3,213.744	9	3,592.277

50	189, 2664	150	567, 799	250	946, 332	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, 062
1	193, 0518	1	571, 555	1	950, 117	1	1, 328, 650	1	1, 707, 183	1	2, 085, 716	1	2, 464, 249	1	2, 842, 782	1	3, 221, 315	1	3, 599, 847
2	196, 3371	2	575, 370	2	953, 903	2	1, 332, 436	2	1, 710, 968	2	2, 089, 501	2	2, 468, 034	2	2, 846, 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	3	3, 607, 418
4	204, 4077	4	582, 941	4	961, 473	4	1, 340, 006	4	1, 718, 539	4	2, 097, 072	4	2, 475, 605	4	2, 854, 138	4	3, 232, 671	4	3, 611, 203
5	208, 1931	5	586, 726	5	965, 259	5	1, 343, 792	5	1, 722, 324	5	2, 100, 857	5	2, 479, 390	5	2, 858, 974	5	3, 236, 456	5	3, 614, 989
6	212, 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	6	3, 618, 774
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	7	3, 622, 559
8	219, 5491	8	598, 082	8	976, 615	8	1, 355, 148	8	1, 733, 680	8	2, 112, 213	8	2, 489, 746	8	2, 869, 279	8	3, 247, 812	8	3, 626, 335
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	9	3, 630, 130
60	227, 1197	160	605, 653	260	984, 185	360	1, 362, 718	460	1, 741, 251	560	2, 119, 784	660	2, 498, 317	760	2, 876, 850	860	3, 255, 383	960	3, 633, 915
1	230, 9050	1	609, 438	1	987, 971	1	1, 366, 504	1	1, 745, 036	1	2, 123, 569	1	2, 502, 102	1	2, 880, 635	1	3, 259, 168	1	3, 637, 701
2	234, 6904	2	613, 223	2	991, 756	2	1, 370, 289	2	1, 748, 822	2	2, 127, 355	2	2, 505, 887	2	2, 884, 420	2	3, 262, 953	2	3, 641, 486
3	238, 4757	3	617, 009	3	995, 541	3	1, 374, 074	3	1, 752, 607	3	2, 131, 140	3	2, 509, 673	3	2, 888, 206	3	3, 266, 738	3	3, 645, 271
4	242, 2610	4	620, 794	4	999, 327	4	1, 377, 860	4	1, 756, 392	4	2, 134, 925	4	2, 513, 458	4	2, 891, 991	4	3, 270, 524	4	3, 649, 057
5	246, 0464	5	624, 579	5	1, 003, 112	5	1, 381, 645	5	1, 760, 178	5	2, 138, 711	5	2, 517, 243	5	2, 895, 776	5	3, 274, 309	5	3, 652, 842
6	249, 8317	6	628, 365	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	6	3, 656, 627
7	253, 6170	7	632, 150	7	1, 010, 683	7	1, 389, 216	7	1, 767, 748	7	2, 146, 281	7	2, 524, 814	7	2, 903, 342	7	3, 281, 880	7	3, 660, 413
8	257, 4023	8	635, 935	8	1, 014, 468	8	1, 393, 001	8	1, 771, 534	8	2, 150, 067	8	2, 528, 599	8	2, 907, 132	8	3, 285, 665	8	3, 664, 198
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	9	3, 667, 983
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, 708	870	3, 293, 236	970	3, 671, 769
1	268, 7583	1	647, 291	1	1, 025, 824	1	1, 404, 357	1	1, 782, 890	1	2, 161, 423	1	2, 539, 955	1	2, 918, 488	1	3, 297, 021	1	3, 675, 554
2	272, 5437	2	651, 077	2	1, 029, 609	2	1, 408, 142	2	1, 786, 675	2	2, 165, 208	2	2, 543, 741	2	2, 922, 274	2	3, 300, 806	2	3, 679, 339
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, 926, 059	3	3, 304, 592	3	3, 683, 125
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, 308, 377	4	3, 686, 910
5	283, 8996	5	662, 432	5	1, 040, 965	5	1, 419, 498	5	1, 798, 031	5	2, 176, 564	5	2, 555, 097	5	2, 933, 630	5	3, 312, 162	5	3, 690, 695
6	287, 6850	6	666, 218	6	1, 044, 751	6	1, 423, 284	6	1, 801, 816	6	2, 180, 349	6	2, 558, 882	6	2, 937, 415	6	3, 315, 948	6	3, 694, 481
7	291, 4703	7	670, 003	7	1, 048, 536	7	1, 427, 069	7	1, 805, 602	7	2, 184, 135	7	2, 562, 667	7	2, 941, 200	7	3, 319, 733	7	3, 698, 266
8	295, 2556	8	673, 788	8	1, 052, 321	8	1, 430, 854	8	1, 809, 387	8	2, 187, 920	8	2, 566, 453	8	2, 944, 986	8	3, 323, 518	8	3, 702, 051
9	299, 0410	9	677, 574	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	9	3, 705, 837
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	980	3, 709, 622
1	306, 6116	1	685, 144	1	1, 063, 677	1	1, 442, 210	1	1, 820, 743	1	2, 199, 276	1	2, 577, 809	1	2, 956, 342	1	3, 334, 874	1	3, 713, 407
2	310, 3969	2	688, 930	2	1, 067, 463	2	1, 445, 995	2	1, 824, 528	2	2, 203, 061	2	2, 581, 594	2	2, 960, 127	2	3, 338, 660	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, 342, 445	3	3, 720, 978
4	317, 9676	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, 698	4	3, 346, 230	4	3, 724, 763
5	321, 7529	5	700, 286	5	1, 078, 819	5	1, 457, 351	5	1, 835, 884	5	2, 214, 417	5	2, 592, 950	5	2, 971, 483	5	3, 350, 016	5	3, 728, 549
6	325, 5383	6	704, 071	6	1, 082, 604	6	1, 461, 137	6	1, 839, 670	6	2, 218, 203	6	2, 596, 735	6	2, 975, 268	6	3, 353, 801	6	3, 732, 334
7	329, 3236	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, 357, 586	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, 773	8	2, 604, 306	8	2, 982, 839	8	3, 361, 372	8	3, 739, 905
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, 365, 157	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, 414	890	3, 368, 942	990	3, 747, 475
1	344, 4649	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, 372, 728	1	3, 751, 261
2	348, 2502	2	726, 783	2	1, 105, 316	2	1, 483, 849	2	1, 862, 382	2	2, 240, 914	2	2, 619, 447	2	2, 997, 980	2	3, 376, 513	2	3, 755, 046
3	352, 0356	3	730, 568	3	1, 109, 101	3	1, 487, 634	3	1, 866, 167	3	2, 244, 700	3	2, 623, 233	3	3, 001, 766	3	3, 380, 298	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, 485	4	2, 627, 018	4	3, 005, 551	4	3, 384, 084	4	3, 762, 617
5	359, 6062	5	738, 139	5	1, 116, 672	5	1, 495, 205	5	1, 873, 738	5	2, 252, 270	5	2, 630, 803	5	3, 009, 336	5	3, 388, 869	5	3, 766, 402
6	363, 3915	6	741, 924	6	1, 120, 457	6	1, 498, 990	6	1, 877, 523	6	2, 256, 056	6	2, 634, 589	6	3, 013, 121	6	3, 391, 654	6	3, 770, 187
7	367, 1769	7	745, 710	7	1, 124, 243	7	1, 502, 775	7	1, 881, 308	7	2, 259, 841	7	2, 638, 374	7	3, 016, 907	7	3, 395, 440	7	3, 773, 973
8	370, 9622	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, 020, 692	8	3, 399, 225	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, 477	9	3, 403, 010	9	3, 781, 543

[illegible]

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. 47307	1	39. 8909	1	66. 3086	1	92. 7264	1	119. 1442	1	145. 5620	1	171. 9798	1	198. 3976	1	224. 8154	1	251. 2331
2	13. 73725	2	40. 1550	2	66. 5728	2	93. 2906	2	119. 4084	2	145. 8262	2	172. 2440	2	198. 6618	2	225. 0795	2	251. 4973
3	14. 00143	3	40. 4192	3	66. 8370	3	93. 5190	3	119. 6726	3	146. 0904	3	172. 5081	3	199. 0259	3	225. 3437	3	251. 7615
4	14. 26560	4	40. 6834	4	67. 1012	4	93. 7831	4	120. 9367	4	146. 3545	4	172. 7723	4	199. 1901	4	225. 6079	4	252. 0257
5	14. 52978	5	40. 9476	5	67. 3654	5	94. 0473	5	120. 2009	5	146. 6187	5	173. 0365	5	199. 4543	5	225. 8721	5	252. 2899
6	14. 79396	6	41. 2117	6	67. 6295	6	94. 3115	6	120. 4651	6	146. 8829	6	173. 3007	6	199. 7185	6	226. 1362	6	252. 5540
7	15. 05814	7	41. 4759	7	67. 8937	7	94. 5857	7	120. 7293	7	147. 1471	7	173. 5649	7	199. 9826	7	226. 4004	7	252. 8182
8	15. 32232	8	41. 7401	8	68. 1579	8	94. 8599	8	121. 9935	8	147. 4112	8	173. 8290	8	199. 2468	8	226. 6646	8	253. 0824
9	15. 58649	9	42. 0043	9	68. 4221	9	94. 8599	9	121. 2576	9	147. 6754	9	174. 0932	9	200. 5110	9	226. 9288	9	253. 3466
60	15. 85067	160	42. 2685	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	1	42. 5326	1	68. 9504	1	95. 3682	1	121. 7860	1	148. 2038	1	174. 6216	1	201. 0394	1	227. 4571	1	253. 8749
2	16. 37903	2	42. 7968	2	69. 2146	2	95. 6324	2	122. 0502	2	148. 4680	2	174. 8857	2	201. 3035	2	227. 7213	2	254. 1391
3	16. 64321	3	43. 0610	3	69. 4788	3	95. 8966	3	122. 3143	3	148. 7321	3	175. 1499	3	201. 5677	3	227. 9855	3	254. 4033
4	16. 90738	4	43. 3252	4	69. 7430	4	96. 1607	4	122. 5785	4	148. 9963	4	175. 4141	4	201. 8319	4	228. 2497	4	254. 6675
5	17. 17156	5	43. 5893	5	70. 0071	5	96. 4249	5	122. 8427	5	149. 2605	5	175. 6783	5	202. 0961	5	228. 5138	5	254. 9316
6	17. 43574	6	43. 8535	6	70. 2713	6	96. 6891	6	123. 1069	6	149. 5247	6	175. 9425	6	202. 3602	6	228. 7780	6	255. 1958
7	17. 69992	7	44. 1177	7	70. 5355	7	96. 9533	7	123. 3711	7	149. 7888	7	176. 2068	7	202. 6244	7	229. 0422	7	255. 4600
8	17. 96409	8	44. 3819	8	70. 7997	8	97. 2175	8	123. 6352	8	150. 0530	8	176. 4706	8	202. 8886	8	229. 3064	8	255. 7242
9	18. 22827	9	44. 6461	9	71. 0638	9	97. 4816	9	123. 8994	9	150. 3172	9	176. 7350	9	203. 1528	9	229. 5706	9	255. 9883
70	18. 49245	170	44. 9102	270	71. 3280	370	97. 7458	470	124. 1636	570	150. 5814	670	176. 9992	770	203. 4170	870	229. 8347	970	256. 2525
1	18. 75663	1	45. 1744	1	71. 5922	1	98. 0100	1	124. 4278	1	150. 8456	1	177. 2633	1	203. 6811	1	230. 0989	1	256. 5167
2	19. 02081	2	45. 4386	2	71. 8564	2	98. 2742	2	124. 6919	2	151. 1097	2	177. 5275	2	203. 9453	2	230. 3631	2	256. 7809
3	19. 28498	3	45. 7028	3	72. 1206	3	98. 5383	3	124. 9561	3	151. 3739	3	177. 7917	3	204. 2095	3	230. 6273	3	257. 0451
4	19. 54916	4	45. 9669	4	72. 3847	4	98. 8025	4	125. 2203	4	151. 6381	4	178. 0559	4	204. 4737	4	230. 8914	4	257. 3092
5	19. 81334	5	46. 2311	5	72. 6489	5	99. 0667	5	125. 4845	5	151. 9023	5	178. 3201	5	204. 7378	5	231. 1556	5	257. 5734
6	20. 07752	6	46. 4953	6	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	7	46. 7595	7	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	8	47. 0237	8	73. 4414	8	99. 8592	8	126. 2770	8	152. 6948	8	179. 1126	8	205. 5304	8	231. 9482	8	258. 3659
9	20. 87005	9	47. 2878	9	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. 13423	180	47. 5520	280	73. 9698	380	100. 3876	480	126. 8054	580	153. 2232	680	179. 6409	780	206. 0587	880	232. 4765	980	258. 8943
1	21. 39841	1	47. 8162	1	74. 2340	1	100. 6518	1	127. 0696	1	153. 4879	1	179. 9051	1	206. 3229	1	232. 7407	1	259. 1585
2	21. 66258	2	48. 0804	2	74. 4982	2	100. 9159	2	127. 3337	2	153. 7515	2	180. 1693	2	206. 5871	2	233. 0049	2	259. 4227
3	21. 92676	3	48. 3445	3	74. 7623	3	101. 1801	3	127. 5979	3	154. 0157	3	180. 4335	3	206. 8513	3	233. 2691	3	259. 6868
4	22. 19094	4	48. 6087	4	75. 0265	4	101. 4443	4	127. 8621	4	154. 2799	4	180. 6977	4	207. 1154	4	233. 5332	4	259. 9510
5	22. 45512	5	48. 8729	5	75. 2907	5	101. 7085	5	128. 1263	5	154. 5440	5	180. 9618	5	207. 3796	5	233. 7974	5	260. 2152
6	22. 71930	6	49. 1371	6	75. 5549	6	101. 9727	6	128. 3904	6	154. 8082	6	181. 2260	6	207. 6438	6	234. 0616	6	260. 4794
7	22. 98347	7	49. 4013	7	75. 8190	7	102. 2368	7	128. 6546	7	155. 0724	7	181. 4902	7	207. 9080	7	234. 3258	7	260. 7435
8	23. 24765	8	49. 6654	8	76. 0832	8	102. 5010	8	128. 9188	8	155. 3366	8	181. 7544	8	208. 1722	8	234. 5899	8	261. 0077
9	23. 51183	9	49. 9296	9	76. 3474	9	102. 7652	9	129. 1830	9	155. 6008	9	182. 0185	9	208. 4363	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	1	50. 4580	1	76. 8758	1	103. 2935	1	129. 7113	1	156. 1291	1	182. 5469	1	208. 9647	1	235. 3825	1	261. 8003
2	24. 30436	2	50. 7221	2	77. 1399	2	103. 5577	2	129. 9755	2	156. 3933	2	182. 8111	2	209. 2289	2	235. 6467	2	262. 0644
3	24. 56854	3	50. 9863	3	77. 4041	3	103. 8219	3	130. 2397	3	156. 6575	3	183. 0753	3	209. 4930	3	235. 9108	3	262. 3286
4	24. 83272	4	51. 2505	4	77. 6683	4	104. 0861	4	130. 5039	4	156. 9216	4	183. 3394	4	209. 7572	4	236. 1750	4	262. 5928
5	25. 09690	5	51. 5147	5	77. 9325	5	104. 3503	5	130. 7680	5	157. 1858	5	183. 6036	5	210. 0214	5	236. 4392	5	262. 8570
6	25. 36107	6	51. 7789	6	78. 1966	6	104. 6144	6	131. 0322	6	157. 4500	6	183. 8678	6	210. 2856	6	236. 7034	6	263. 1211
7	25. 62525	7	52. 0430	7	78. 4608	7	104. 8786	7	131. 2964	7	157. 7142	7	184. 1320	7	210. 5498	7	236. 9675	7	263. 3853
8	25. 88943	8	52. 3072	8	78. 7250	8	105. 1428	8	131. 5606	8	157. 9784	8	184. 3961	8	210. 8131	8	237. 2317	8	263. 6495
9	26. 15361	9	52. 5714	9	78. 9892	9	105. 4070	9	131. 8248	9	158. 2425	9	184. 6603	9	211. 0781	9	237. 4959	9	263. 9137

CAPACITY—BUSHELS TO HECTOLITERS

[Reduction factor: 1 bushel=0.35238295 hectoliters]

Bush-els	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters	Bushels	Hecto-liters
0	0.35238	100	35.2383	200	70.4766	300	105.7149	400	140.9532	500	176.1915	600	211.4298	700	246.6681	800	281.9064	900	317.1447
1	0.70477	1	35.5907	1	70.8290	2	106.0673	1	141.3056	1	176.5439	1	211.7822	1	247.0204	1	282.2587	1	317.4970
2	1.05715	2	35.9431	2	71.1814	2	106.4197	2	141.6579	2	176.8962	2	212.1345	2	247.3728	2	282.6111	2	317.8494
3	1.40953	3	36.2954	3	71.5337	3	106.7720	3	142.0103	3	177.2486	3	212.4869	3	247.7252	3	282.9635	3	318.2018
4	1.76191	4	36.6478	4	71.8861	4	107.1244	4	142.3627	4	177.6010	4	212.8393	4	248.0776	4	283.3159	4	318.5542
5	2.11430	5	37.0002	5	72.2385	5	107.4768	5	142.7151	5	177.9534	5	213.1917	5	248.4300	5	283.6683	5	318.9066
6	2.46668	6	37.3526	6	72.5909	6	107.8292	6	143.0675	6	178.3058	6	213.5441	6	248.7824	6	284.0207	6	319.2590
7	2.81906	7	37.7050	7	72.9433	7	108.1816	7	143.4199	7	178.6582	7	213.8965	7	249.1347	7	284.3730	7	319.6113
8	3.17145	8	38.0574	8	73.2957	8	108.5339	8	143.7722	8	179.0105	8	214.2488	8	249.4871	8	284.7254	8	319.9637
9	3.52383	9	38.4097	9	73.6480	9	108.8863	9	144.1246	9	179.3629	9	214.6012	9	249.8395	9	285.0778	9	320.3161
10	3.87621	10	38.7621	210	74.0004	310	109.2387	410	144.4770	510	179.7153	610	214.9536	710	250.1919	810	285.4302	910	320.6685
1	3.92145	1	39.1145	1	74.3528	1	109.5911	1	144.8294	1	180.0677	1	215.3060	1	250.5443	1	285.7826	1	321.0209
2	4.27383	2	39.4669	2	74.7052	2	109.9435	2	145.1818	2	180.4201	2	215.6584	2	250.8967	2	286.1350	2	321.3733
3	4.62621	3	39.8193	3	75.0576	3	110.2959	3	145.5342	3	180.7725	3	216.0107	3	251.2490	3	286.4873	3	321.7256
4	4.97859	4	40.1717	4	75.4100	4	110.6482	4	145.8865	4	181.1248	4	216.3631	4	251.6014	4	286.8397	4	322.0780
5	5.33097	5	40.5240	5	75.7623	5	111.0006	5	146.2389	5	181.4772	5	216.7155	5	251.9538	5	287.1921	5	322.4304
6	5.68335	6	40.8764	6	76.1147	6	111.3530	6	146.5913	6	181.8296	6	217.0679	6	252.3062	6	287.5445	6	322.7828
7	6.03573	7	41.2288	7	76.4671	7	111.7054	7	146.9437	7	182.1820	7	217.4203	7	252.6586	7	287.8969	7	323.1352
8	6.38811	8	41.5812	8	76.8195	8	112.0578	8	147.2961	8	182.5344	8	217.7727	8	253.0110	8	288.2493	8	323.4875
9	6.74049	9	41.9336	9	77.1719	9	112.4102	9	147.6485	9	182.8868	9	218.1250	9	253.3633	9	288.6016	9	323.8399
20	6.97566	120	42.2860	220	77.5242	320	112.7625	420	148.0008	520	183.2391	620	218.4774	720	253.7157	820	288.9540	920	324.1923
1	7.40004	1	42.6383	1	77.8766	1	113.1149	1	148.3532	1	183.5915	1	218.8298	1	254.0681	1	289.3064	1	324.5447
2	7.75242	2	42.9907	2	78.2290	2	113.4673	2	148.7056	2	183.9439	2	219.1822	2	254.4205	2	289.6588	2	324.8971
3	8.10481	3	43.3431	3	78.5814	3	113.8197	3	149.0580	3	184.2963	3	219.5346	3	254.7729	3	290.0112	3	325.2495
4	8.45719	4	43.6955	4	78.9338	4	114.1721	4	149.4104	4	184.6487	4	219.8870	4	255.1253	4	290.3636	4	325.6018
5	8.80957	5	44.0479	5	79.2862	5	114.5245	5	149.7628	5	185.0010	5	220.2393	5	255.4776	5	290.7159	5	325.9542
6	9.16196	6	44.4003	6	79.6385	6	114.8768	6	150.1151	6	185.3534	6	220.5917	6	255.8300	6	291.0683	6	326.3066
7	9.51434	7	44.7526	7	79.9909	7	115.2292	7	150.4675	7	185.7058	7	220.9441	7	256.1824	7	291.4207	7	326.6590
8	9.86672	8	45.1050	8	80.3433	8	115.5816	8	150.8199	8	186.0582	8	221.2965	8	256.5348	8	291.7731	8	327.0114
9	10.21911	9	45.4574	9	80.6957	9	115.9340	9	151.1723	9	186.4106	9	221.6489	9	256.8872	9	292.1255	9	327.3638
30	10.57149	130	45.8098	230	81.0481	330	116.2864	430	151.5247	530	186.7630	630	222.0013	730	257.2396	830	292.4778	930	327.7161
1	10.92387	1	46.1622	1	81.4005	1	116.6388	1	151.8771	1	187.1153	1	222.3536	1	257.5919	1	292.8302	1	328.0685
2	11.27625	2	46.5145	2	81.7528	2	116.9911	2	152.2294	2	187.4677	2	222.7060	2	257.9443	2	293.1826	2	328.4209
3	11.62864	3	46.8669	3	82.1052	3	117.3435	3	152.5818	3	187.8201	3	223.0584	3	258.2967	3	293.5350	3	328.7733
4	11.98102	4	47.2193	4	82.4576	4	117.6959	4	152.9342	4	188.1725	4	223.4108	4	258.6491	4	293.8874	4	329.1257
5	12.33340	5	47.5717	5	82.8100	5	118.0483	5	153.2866	5	188.5249	5	223.7632	5	259.0015	5	294.2398	5	329.4781
6	12.68579	6	47.9241	6	83.1624	6	118.4007	6	153.6390	6	188.8773	6	224.1156	6	259.3539	6	294.5921	6	329.8304
7	13.03817	7	48.2765	7	83.5148	7	118.7531	7	153.9913	7	189.2296	7	224.4679	7	259.7062	7	294.9445	7	330.1828
8	13.39055	8	48.6288	8	83.8671	8	119.1054	8	154.3437	8	189.5820	8	224.8203	8	260.0586	8	295.2969	8	330.5352
9	13.74294	9	48.9812	9	84.2195	9	119.4578	9	154.6961	9	189.9344	9	225.1727	9	260.4110	9	295.6493	9	330.8876
40	14.09532	140	49.3336	240	84.5719	340	119.8102	440	155.0485	540	190.2868	640	225.5251	740	260.7634	840	296.0017	940	331.2400
1	14.44770	1	49.6860	1	84.9243	1	120.1626	1	155.4009	1	190.6392	1	225.8775	1	261.1158	1	296.3541	1	331.5924
2	14.80008	2	50.0384	2	85.2767	2	120.5150	2	155.7533	2	190.9916	2	226.2299	2	261.4681	2	296.7064	2	331.9447
3	15.15247	3	50.3908	3	85.6291	3	120.8674	3	156.1056	3	191.3439	3	226.5822	3	261.8205	3	297.0588	3	332.2971
4	15.50485	4	50.7431	4	85.9814	4	121.2197	4	156.4580	4	191.6963	4	226.9346	4	262.1729	4	297.4112	4	332.6495
5	15.85723	5	51.0955	5	86.3338	5	121.5721	5	156.8104	5	192.0487	5	227.2870	5	262.5253	5	297.7636	5	333.0019
6	16.20962	6	51.4479	6	86.6862	6	121.9245	6	157.1628	6	192.4011	6	227.6394	6	262.8777	6	298.1160	6	333.3543
7	16.56200	7	51.8003	7	87.0386	7	122.2769	7	157.5152	7	192.7535	7	227.9918	7	263.2301	7	298.4684	7	333.7067
8	16.91438	8	52.1527	8	87.3910	8	122.6293	8	157.8676	8	193.1059	8	228.3442	8	263.5824	8	298.8207	8	334.0590
9	17.26676	9	52.5051	9	87.7434	9	122.9816	9	158.2199	9	193.4582	9	228.6965	9	263.9348	9	299.1731	9	334.4114

50	17. 61915	150	52. 8574	250	88. 0957	350	123. 3340	450	158. 5723	550	193. 8106	650	229. 0489	750	264. 2872	850	299. 5255	950	334. 7638
1	17. 97153	1	53. 2098	1	88. 4481	1	123. 6864	1	158. 9247	1	194. 1630	1	229. 4013	1	264. 6396	1	299. 8779	1	335. 1162
2	18. 32391	2	53. 5622	2	88. 8005	2	124. 0388	2	159. 2771	2	194. 5154	2	229. 7537	2	264. 9920	2	300. 2303	2	335. 4686
3	18. 67630	3	53. 9146	3	89. 1529	3	124. 3912	3	159. 6295	3	194. 8678	3	230. 1061	3	265. 3444	3	300. 5827	3	335. 8210
4	19. 02868	4	54. 2670	4	89. 5053	4	124. 7436	4	159. 9819	4	195. 2202	4	230. 4584	4	265. 6967	4	300. 9150	4	336. 1733
5	19. 38106	5	54. 6194	5	89. 8577	5	125. 0959	5	160. 3342	5	195. 5725	5	230. 8108	5	266. 0491	5	301. 2874	5	336. 5257
6	19. 73345	6	54. 9717	6	90. 2100	6	125. 4483	6	160. 6866	6	195. 9249	6	231. 1632	6	266. 4015	6	301. 6398	6	336. 8781
7	20. 08583	7	55. 3241	7	90. 5624	7	125. 8007	7	161. 0390	7	196. 2773	7	231. 5156	7	266. 7539	7	301. 9922	7	337. 2305
8	20. 43821	8	55. 6765	8	90. 9148	8	126. 1531	8	161. 3914	8	196. 6297	8	231. 8680	8	267. 1063	8	302. 3446	8	337. 5829
9	20. 79059	9	56. 0289	9	91. 2672	9	126. 5055	9	161. 7438	9	196. 9821	9	232. 2204	9	267. 4587	9	302. 6970	9	337. 9352
60	21. 14298	160	56. 3813	260	91. 6196	360	126. 8579	460	162. 0962	560	197. 3345	660	232. 5727	760	267. 8110	860	303. 0493	960	338. 2876
1	21. 49536	1	56. 7337	1	91. 9719	1	127. 2102	1	162. 4485	1	197. 6868	1	232. 9251	1	268. 1634	1	303. 4017	1	338. 6400
2	21. 84774	2	57. 0860	2	92. 3243	2	127. 5626	2	162. 8009	2	198. 0392	2	233. 2775	2	268. 5158	2	303. 7541	2	338. 9924
3	22. 20013	3	57. 4384	3	92. 6767	3	127. 9150	3	163. 1533	3	198. 3916	3	233. 6299	3	268. 8682	3	304. 1065	3	339. 3448
4	22. 55251	4	57. 7908	4	93. 0291	4	128. 2674	4	163. 5057	4	198. 7440	4	233. 9823	4	269. 2206	4	304. 4589	4	339. 6972
5	22. 90489	5	58. 1432	5	93. 3815	5	128. 6198	5	163. 8581	5	199. 0964	5	234. 3347	5	269. 5740	5	304. 8113	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. 60966	7	58. 8480	7	94. 0862	7	129. 3245	7	164. 5628	7	199. 8011	7	235. 0394	7	270. 2777	7	305. 5160	7	340. 7543
8	23. 96204	8	59. 2003	8	94. 4386	8	129. 6769	8	164. 9152	8	200. 1533	8	235. 3918	8	270. 6301	8	305. 8684	8	341. 1067
9	24. 31442	9	59. 5527	9	94. 7910	9	130. 0293	9	165. 2676	9	200. 5059	9	235. 7442	9	270. 9825	9	306. 2208	9	341. 4591
70	24. 66681	170	59. 9051	270	95. 1434	370	130. 3817	470	165. 6200	570	200. 8583	670	236. 0966	770	271. 3349	870	306. 5732	970	341. 8115
1	25. 01919	1	60. 2575	1	95. 4958	1	130. 7341	1	166. 9723	1	201. 2100	1	236. 4410	1	271. 6873	1	306. 9255	1	342. 1638
2	25. 37157	2	60. 6099	2	95. 8482	2	131. 0865	2	167. 3278	2	201. 5624	2	236. 7934	2	272. 0396	2	307. 2779	2	342. 5162
3	25. 72396	3	60. 9623	3	96. 2005	3	131. 4389	3	167. 6791	3	201. 9148	3	237. 1457	3	272. 3920	3	307. 6303	3	342. 8686
4	26. 07634	4	61. 3146	4	96. 5529	4	131. 7912	4	168. 0293	4	202. 2673	4	237. 4981	4	272. 7443	4	307. 9827	4	343. 2210
5	26. 42872	5	61. 6670	5	96. 9053	5	132. 1436	5	168. 3815	5	202. 6202	5	237. 8503	5	273. 0964	5	308. 3351	5	343. 5734
6	26. 78110	6	62. 0194	6	97. 2577	6	132. 4960	6	168. 7343	6	202. 9726	6	238. 2008	6	273. 4492	6	308. 6875	6	343. 9258
7	27. 13349	7	62. 3718	7	97. 6101	7	132. 8484	7	169. 0867	7	203. 3250	7	238. 5533	7	273. 8025	7	309. 0398	7	344. 2781
8	27. 48587	8	62. 7242	8	97. 9625	8	133. 2008	8	169. 4391	8	203. 6773	8	238. 9156	8	274. 1539	8	309. 3922	8	344. 6305
9	27. 83825	9	63. 0765	9	98. 3148	9	133. 5531	9	169. 7914	9	204. 0297	9	239. 2680	9	274. 5063	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. 8587	880	310. 0970	980	345. 3353
1	28. 54302	1	63. 7813	1	99. 0196	1	134. 2579	1	169. 4962	1	204. 7345	1	239. 9728	1	275. 2111	1	310. 4494	1	345. 6877
2	28. 89540	2	64. 1337	2	99. 3720	2	134. 6103	2	169. 8486	2	205. 0869	2	240. 3252	2	275. 5635	2	310. 8018	2	346. 0401
3	29. 24778	3	64. 4861	3	99. 7244	3	134. 9627	3	170. 2010	3	205. 4393	3	240. 6776	3	275. 9158	3	311. 1543	3	346. 3924
4	29. 60017	4	64. 8385	4	100. 0768	4	135. 3151	4	170. 5533	4	205. 7916	4	241. 0299	4	276. 2682	4	311. 5065	4	346. 7448
5	29. 95255	5	65. 1908	5	100. 4291	5	135. 6674	5	170. 9057	5	206. 1440	5	241. 3823	5	276. 6206	5	311. 8589	5	347. 0972
6	30. 30493	6	65. 5432	6	100. 7815	6	136. 0198	6	171. 2581	6	206. 4964	6	241. 7347	6	276. 9730	6	312. 2113	6	347. 4500
7	30. 65732	7	65. 8956	7	101. 1339	7	136. 3722	7	171. 6105	7	206. 8488	7	242. 0871	7	277. 3254	7	312. 5637	7	347. 8020
8	31. 00970	8	66. 2480	8	101. 4863	8	136. 7246	8	171. 9629	8	207. 2012	8	242. 4395	8	277. 6778	8	312. 9161	8	348. 1544
9	31. 36208	9	66. 6004	9	101. 8387	9	137. 0770	9	172. 3153	9	207. 5536	9	242. 7919	9	278. 0301	9	313. 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. 3051	1	102. 5434	1	137. 7817	1	173. 0200	1	208. 2583	1	243. 4966	1	278. 7349	1	313. 9732	1	349. 2115
2	32. 41923	2	67. 6575	2	102. 8958	2	138. 1341	2	173. 3724	2	208. 6107	2	243. 8490	2	279. 0873	2	314. 3256	2	349. 5639
3	32. 77161	3	68. 0099	3	103. 2482	3	138. 4865	3	173. 7248	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	138. 8389	4	174. 0772	4	209. 3155	4	244. 5538	4	279. 7921	4	315. 0304	4	350. 2687
5	33. 47638	5	68. 7147	5	103. 9530	5	139. 1913	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	350. 9734
7	34. 18115	7	69. 4194	7	104. 6577	7	139. 8960	7	175. 1343	7	210. 3726	7	245. 6109	7	280. 8492	7	316. 0875	7	351. 3258
8	34. 53353	8	69. 7718	8	105. 0101	8	140. 2484	8	175. 4867	8	210. 7250	8	245. 9633	8	281. 2016	8	316. 4399	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=2.378218 bushels]

Hecto- liters	Bush- els	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels	Hecto- liters	Bushels		
0	2.8378	100	283.782	200	567.564	300	851.347	400	1,135.129	500	1,418.911	600	1,702.693	700	1,986.475	800	2,270.257	900	2,554.040		
1	286.620	1	570.402	1	854.184	1	1,137.967	1	1,421.749	1	1,705.531	1	1,989.313	1	2,273.095	1	2,556.877	1	2,840.660		
2	5.6756	2	289.458	2	573.240	2	857.022	2	1,140.804	2	1,424.587	2	1,708.362	2	1,992.151	2	2,275.933	2	2,559.715	2	2,836.008
3	8.5135	3	292.296	3	576.078	3	859.860	3	1,143.642	3	1,427.424	3	1,711.207	3	1,994.989	3	2,278.771	3	2,562.553	3	2,842.822
4	11.3513	4	295.133	4	578.916	4	862.698	4	1,146.480	4	1,430.262	4	1,714.044	4	1,997.827	4	2,281.609	4	2,565.329	4	2,845.594
5	14.1891	5	297.971	5	581.753	5	865.536	5	1,149.318	5	1,433.100	5	1,716.882	5	2,000.664	5	2,284.447	5	2,568.229	5	2,848.368
6	17.0269	6	300.809	6	584.591	6	868.373	6	1,152.156	6	1,435.938	6	1,719.720	6	2,003.502	6	2,287.284	6	2,571.067	6	2,851.137
7	19.8648	7	303.647	7	587.429	7	871.211	7	1,154.993	7	1,438.776	7	1,722.558	7	2,006.340	7	2,290.122	7	2,573.904	7	2,853.968
8	22.7026	8	306.485	8	590.267	8	874.049	8	1,157.831	8	1,441.613	8	1,725.396	8	2,009.178	8	2,292.960	8	2,576.742	8	2,856.799
9	25.5404	9	309.323	9	593.105	9	876.887	9	1,160.669	9	1,444.451	9	1,728.233	9	2,012.016	9	2,295.798	9	2,579.580	9	2,859.630
10	28.3782	110	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	2,298.636	910	2,582.418		
1	31.2160	1	314.998	1	598.780	1	882.563	1	1,166.345	1	1,450.127	1	1,733.909	1	2,017.691	1	2,301.473	1	2,585.256	1	2,862.039
2	34.0539	2	317.836	2	601.618	2	885.400	2	1,169.183	2	1,452.965	2	1,736.747	2	2,020.529	2	2,304.311	2	2,588.093	2	2,864.875
3	36.8917	3	320.674	3	604.456	3	888.238	3	1,172.020	3	1,455.803	3	1,739.585	3	2,023.367	3	2,307.149	3	2,590.931	3	2,867.717
4	39.7295	4	323.512	4	607.294	4	891.076	4	1,174.858	4	1,458.640	4	1,742.423	4	2,026.205	4	2,310.987	4	2,593.769	4	2,870.559
5	42.5673	5	326.350	5	610.132	5	893.914	5	1,177.696	5	1,461.478	5	1,745.260	5	2,029.043	5	2,313.825	5	2,596.607	5	2,873.397
6	45.4051	6	329.187	6	612.970	6	896.752	6	1,180.534	6	1,464.316	6	1,748.098	6	2,031.880	6	2,316.663	6	2,599.445	6	2,876.239
7	48.2430	7	332.025	7	615.807	7	899.590	7	1,183.372	7	1,467.154	7	1,750.936	7	2,034.718	7	2,319.500	7	2,602.283	7	2,879.081
8	51.0808	8	334.863	8	618.645	8	902.427	8	1,186.210	8	1,469.992	8	1,753.774	8	2,037.556	8	2,322.338	8	2,605.120	8	2,881.923
9	53.9186	9	337.701	9	621.483	9	905.265	9	1,189.047	9	1,472.830	9	1,756.612	9	2,040.394	9	2,325.176	9	2,607.958	9	2,884.765
20	56.7564	120	340.539	220	624.321	320	908.103	420	1,191.885	520	1,475.607	620	1,759.450	720	2,043.232	820	2,327.014	920	2,610.796		
1	59.5943	1	343.376	1	627.159	1	910.941	1	1,194.723	1	1,478.555	1	1,762.287	1	2,046.070	1	2,329.852	1	2,613.634	1	2,887.607
2	62.4321	2	346.214	2	629.996	2	913.779	2	1,197.561	2	1,481.343	2	1,765.125	2	2,048.907	2	2,332.690	2	2,616.472	2	2,890.449
3	65.2699	3	349.052	3	632.834	3	916.616	3	1,200.399	3	1,484.181	3	1,767.963	3	2,051.745	3	2,335.527	3	2,619.310	3	2,893.291
4	68.1077	4	351.890	4	635.672	4	919.454	4	1,203.236	4	1,487.019	4	1,770.801	4	2,054.583	4	2,338.365	4	2,622.147	4	2,896.133
5	70.9455	5	354.728	5	638.510	5	922.292	5	1,206.074	5	1,489.856	5	1,773.639	5	2,057.421	5	2,341.203	5	2,624.985	5	2,898.975
6	73.7834	6	357.566	6	641.348	6	925.130	6	1,208.912	6	1,492.694	6	1,776.476	6	2,060.259	6	2,344.041	6	2,627.823	6	2,901.817
7	76.6212	7	360.403	7	644.186	7	927.968	7	1,211.750	7	1,495.532	7	1,779.314	7	2,063.096	7	2,346.879	7	2,630.661	7	2,904.659
8	79.4590	8	363.241	8	647.023	8	930.806	8	1,214.586	8	1,498.370	8	1,782.152	8	2,065.934	8	2,349.716	8	2,633.499	8	2,907.501
9	82.2968	9	366.079	9	649.861	9	933.643	9	1,217.426	9	1,501.208	9	1,784.990	9	2,068.772	9	2,352.554	9	2,636.336	9	2,910.343
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	2,071.610	830	2,355.392	930	2,639.174		
1	87.9725	1	371.755	1	655.537	1	939.319	1	1,223.101	1	1,506.883	1	1,790.666	1	2,074.448	1	2,358.230	1	2,642.012	1	2,913.185
2	90.8103	2	374.592	2	658.375	2	942.157	2	1,225.939	2	1,509.721	2	1,793.508	2	2,077.286	2	2,361.068	2	2,644.850	2	2,916.027
3	93.6481	3	377.430	3	661.212	3	944.995	3	1,228.777	3	1,512.559	3	1,796.341	3	2,080.123	3	2,363.906	3	2,647.688	3	2,918.869
4	96.4859	4	380.268	4	664.050	4	947.832	4	1,231.615	4	1,515.397	4	1,799.179	4	2,082.961	4	2,366.743	4	2,650.526	4	2,921.711
5	99.3237	5	383.106	5	666.888	5	950.670	5	1,234.452	5	1,518.235	5	1,802.017	5	2,085.799	5	2,369.581	5	2,653.363	5	2,924.553
6	102.1616	6	385.944	6	669.726	6	953.508	6	1,237.290	6	1,521.072	6	1,804.855	6	2,088.637	6	2,372.419	6	2,656.201	6	2,927.395
7	104.9994	7	388.782	7	672.564	7	956.346	7	1,240.128	7	1,523.910	7	1,807.692	7	2,091.475	7	2,375.257	7	2,659.039	7	2,930.237
8	107.8372	8	391.619	8	675.402	8	959.184	8	1,242.966	8	1,526.748	8	1,810.530	8	2,094.312	8	2,378.095	8	2,661.877	8	2,933.079
9	110.6751	9	394.457	9	678.239	9	962.022	9	1,245.804	9	1,529.586	9	1,813.368	9	2,097.150	9	2,380.932	9	2,664.715	9	2,935.921
40	113.5129	140	397.295	240	681.077	340	964.859	440	1,248.642	540	1,532.424	640	1,816.206	740	2,099.988	840	2,383.770	940	2,667.552		
1	116.3507	1	400.133	1	683.915	1	967.697	1	1,251.479	1	1,535.262	1	1,819.044	1	2,102.826	1	2,386.608	1	2,670.390	1	2,938.763
2	119.1885	2	402.971	2	686.753	2	970.535	2	1,254.315	2	1,538.099	2	1,821.882	2	2,105.664	2	2,389.446	2	2,673.228	2	2,941.605
3	122.0263	3	405.809	3	689.591	3	973.391	3	1,257.151	3	1,540.952	3	1,824.719	3	2,108.502	3	2,392.284	3	2,676.066	3	2,944.447
4	124.8640	4	408.646	4	692.429	4	976.211	4	1,260.993	4	1,543.795	4	1,827.557	4	2,111.339	4	2,395.122	4	2,678.904	4	2,947.289
5	127.7018	5	411.484	5	695.266	5	979.049	5	1,263.830	5	1,546.631	5	1,830.395	5	2,114.175	5	2,397.959	5	2,681.746	5	2,950.131
6	130.5396	6	414.322	6	698.104	6	981.986	6	1,266.669	6	1,549.466	6	1,833.231	6	2,117.017	6	2,400.811	6	2,684.587	6	2,952.973
7	133.3776	7	417.160	7	700.942	7	984.724	7	1,269.506	7	1,552.302	7	1,836.071	7	2,119.853	7	2,403.652	7	2,687.429	7	2,955.815
8	136.2152	8	419.998	8	703.780	8	987.562	8	1,272.344	8	1,555.126	8	1,838.909	8	2,122.695	8	2,406.473	8	2,690.271	8	2,958.657
9	139.0533	9	422.835	9	706.618	9	990.400	9	1,275.182	9	1,557.964	9	1,841.746	9	2,125.537	9	2,409.311	9	2,693.093	9	2,961.500

50	141.8911	150	425.673	250	709.455	350	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	144.7289	1	428.511	1	712.293	1	996.075	1	1,279.858	1	1,563.640	1	1,847.422	1	2,131.204	1	2,414.986	1	2,698.769
2	147.5667	2	431.347	2	715.131	2	998.913	2	1,282.695	2	1,566.478	2	1,850.260	2	2,134.042	2	2,417.824	2	2,701.606
3	150.4046	3	434.187	3	717.969	3	1,001.251	3	1,285.533	3	1,569.313	3	1,853.098	3	2,136.880	3	2,420.662	3	2,704.444
4	153.2424	4	437.025	4	720.807	4	1,004.089	4	1,288.367	4	1,572.150	4	1,855.935	4	2,139.718	4	2,423.500	4	2,707.282
5	156.0802	5	439.862	5	723.643	5	1,006.926	5	1,291.207	5	1,574.987	5	1,858.771	5	2,142.555	5	2,426.356	5	2,710.120
6	158.9180	6	442.700	6	726.482	6	1,009.765	6	1,294.044	6	1,577.829	6	1,861.608	6	2,145.610	6	2,429.212	6	2,712.958
7	161.7558	7	445.538	7	729.320	7	1,012.602	7	1,296.885	7	1,580.667	7	1,864.449	7	2,148.231	7	2,432.073	7	2,715.795
8	164.5937	8	448.376	8	732.158	8	1,015.440	8	1,299.722	8	1,583.505	8	1,867.287	8	2,151.069	8	2,434.931	8	2,718.633
9	167.4315	9	451.214	9	734.996	9	1,018.278	9	1,302.560	9	1,586.342	9	1,870.125	9	2,153.907	9	2,437.889	9	2,721.471
60	170.2693	160	454.051	260	737.834	360	1,021.616	460	1,305.398	560	1,589.180	660	1,872.962	760	2,156.745	860	2,440.527	960	2,724.309
1	173.1070	1	456.889	1	740.671	1	1,024.454	1	1,308.236	1	1,592.018	1	1,875.800	1	2,159.582	1	2,443.365	1	2,727.147
2	175.9450	2	459.727	2	743.509	2	1,027.291	2	1,311.074	2	1,594.856	2	1,878.638	2	2,162.420	2	2,446.202	2	2,730.985
3	178.7828	3	462.565	3	746.347	3	1,030.129	3	1,313.911	3	1,597.694	3	1,881.476	3	2,165.258	3	2,449.040	3	2,733.822
4	181.6206	4	465.403	4	749.185	4	1,032.967	4	1,316.749	4	1,600.531	4	1,884.314	4	2,168.096	4	2,451.878	4	2,736.660
5	184.4584	5	468.241	5	752.023	5	1,035.805	5	1,319.587	5	1,603.369	5	1,887.151	5	2,170.934	5	2,454.716	5	2,739.498
6	187.2962	6	471.078	6	754.861	6	1,038.643	6	1,322.425	6	1,606.207	6	1,889.989	6	2,173.771	6	2,457.554	6	2,742.336
7	190.1341	7	473.916	7	757.698	7	1,041.481	7	1,325.263	7	1,609.045	7	1,892.827	7	2,176.609	7	2,460.392	7	2,745.174
8	192.9719	8	476.754	8	760.536	8	1,044.318	8	1,328.101	8	1,611.883	8	1,895.665	8	2,179.447	8	2,463.229	8	2,748.012
9	195.8097	9	479.592	9	763.374	9	1,047.156	9	1,330.938	9	1,614.721	9	1,898.503	9	2,182.285	9	2,466.067	9	2,750.849
70	198.6475	170	482.430	270	766.212	370	1,049.994	470	1,333.776	570	1,617.558	670	1,901.341	770	2,185.123	870	2,468.905	970	2,752.687
1	201.4853	1	485.268	1	769.050	1	1,052.832	1	1,336.614	1	1,620.396	1	1,904.178	1	2,187.961	1	2,471.743	1	2,755.525
2	204.3232	2	488.105	2	771.888	2	1,055.670	2	1,339.452	2	1,623.234	2	1,907.016	2	2,190.798	2	2,474.581	2	2,758.363
3	207.1610	3	490.943	3	774.725	3	1,058.508	3	1,342.290	3	1,626.072	3	1,909.854	3	2,193.636	3	2,477.418	3	2,761.201
4	209.9988	4	493.781	4	777.563	4	1,061.345	4	1,345.128	4	1,628.910	4	1,912.692	4	2,196.474	4	2,480.256	4	2,764.038
5	212.8366	5	496.619	5	780.401	5	1,064.183	5	1,347.965	5	1,631.748	5	1,915.530	5	2,199.312	5	2,483.094	5	2,766.876
6	215.6745	6	499.457	6	783.239	6	1,067.021	6	1,350.803	6	1,634.585	6	1,918.368	6	2,202.150	6	2,485.932	6	2,769.714
7	218.5123	7	502.294	7	786.077	7	1,069.859	7	1,353.641	7	1,637.423	7	1,921.205	7	2,204.988	7	2,488.770	7	2,772.552
8	221.3501	8	505.132	8	788.914	8	1,072.697	8	1,356.479	8	1,640.261	8	1,924.043	8	2,207.825	8	2,491.608	8	2,775.390
9	224.1879	9	507.970	9	791.752	9	1,075.534	9	1,359.317	9	1,643.099	9	1,926.881	9	2,210.663	9	2,494.445	9	2,778.228
80	227.0257	180	510.808	280	794.590	380	1,078.372	480	1,362.154	580	1,645.937	680	1,929.719	780	2,213.501	880	2,497.283	980	2,781.065
1	229.8636	1	513.646	1	797.428	1	1,081.210	1	1,364.992	1	1,648.774	1	1,932.557	1	2,216.339	1	2,500.121	1	2,783.903
2	232.7014	2	516.484	2	800.266	2	1,084.048	2	1,367.830	2	1,651.612	2	1,935.394	2	2,219.177	2	2,502.959	2	2,786.741
3	235.5392	3	519.321	3	803.104	3	1,086.886	3	1,370.668	3	1,654.450	3	1,938.232	3	2,222.014	3	2,505.797	3	2,789.579
4	238.3770	4	522.159	4	805.941	4	1,089.724	4	1,373.506	4	1,657.288	4	1,941.070	4	2,224.852	4	2,508.634	4	2,792.417
5	241.2149	5	524.997	5	808.779	5	1,092.561	5	1,376.344	5	1,660.126	5	1,943.908	5	2,227.690	5	2,511.472	5	2,795.254
6	244.0527	6	527.835	6	811.617	6	1,095.399	6	1,379.181	6	1,662.964	6	1,946.746	6	2,230.528	6	2,514.310	6	2,798.092
7	246.8905	7	530.673	7	814.455	7	1,098.237	7	1,382.019	7	1,665.801	7	1,949.584	7	2,233.366	7	2,517.148	7	2,800.930
8	249.7283	8	533.510	8	817.293	8	1,101.075	8	1,384.857	8	1,668.639	8	1,952.421	8	2,236.204	8	2,519.986	8	2,803.768
9	252.5661	9	536.348	9	820.131	9	1,103.913	9	1,387.695	9	1,671.477	9	1,955.259	9	2,239.041	9	2,522.824	9	2,806.606
90	255.4040	190	539.186	290	822.968	390	1,106.751	490	1,390.533	590	1,674.315	690	1,958.097	790	2,241.879	890	2,525.661	990	2,809.444
1	258.2418	1	542.024	1	825.806	1	1,109.588	1	1,393.371	1	1,677.153	1	1,960.935	1	2,244.717	1	2,528.499	1	2,812.281
2	261.0796	2	544.862	2	828.644	2	1,112.426	2	1,396.208	2	1,679.991	2	1,963.773	2	2,247.555	2	2,531.337	2	2,815.119
3	263.9174	3	547.700	3	831.482	3	1,115.264	3	1,399.046	3	1,682.828	3	1,966.611	3	2,250.393	3	2,534.175	3	2,817.957
4	266.7552	4	550.537	4	834.320	4	1,118.102	4	1,401.884	4	1,685.666	4	1,969.448	4	2,253.231	4	2,537.013	4	2,820.795
5	269.5931	5	553.375	5	837.157	5	1,120.940	5	1,404.722	5	1,688.504	5	1,972.286	5	2,256.068	5	2,539.851	5	2,823.633
6	272.4309	6	556.213	6	839.995	6	1,123.777	6	1,407.560	6	1,691.342	6	1,975.124	6	2,258.906	6	2,542.688	6	2,826.471
7	275.2687	7	559.051	7	842.833	7	1,126.615	7	1,410.397	7	1,694.180	7	1,977.962	7	2,261.744	7	2,545.526	7	2,829.308
8	278.1065	8	561.889	8	845.671	8	1,129.453	8	1,413.235	8	1,697.017	8	1,980.800	8	2,264.582	8	2,548.364	8	2,832.146
9	280.9444	9	564.727	9	848.509	9	1,132.291	9	1,416.073	9	1,699.855	9	1,983.637	9	2,267.420	9	2,551.202	9	2,834.984

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	Pounds	Kilos	Pounds	Kilos	Pounds	Kilos	Pounds	Kilos								
0	0.43599	100	45.35924	200	90.71849	300	136.0773	400	181.43697	500	226.79621	600	272.15546	700	317.51470	800	362.87394	900	408.23318	0	0.43599	100	45.35924	200	90.71849	300	136.0773	400	181.43697	500	226.79621	600	272.15546	700	317.51470	800	362.87394	900	408.23318
1	0.43599	101	45.81284	201	91.12708	301	136.53132	401	181.89056	501	227.24981	601	272.60964	701	317.96829	801	363.32753	901	408.68678	1	0.43599	101	45.81284	201	91.12708	301	136.53132	401	181.89056	501	227.24981	601	272.60964	701	317.96829	801	363.32753	901	408.68678
2	0.87197	102	46.26643	202	91.62567	302	136.98491	402	182.34416	502	227.70340	602	273.06264	702	318.42188	802	363.78113	902	409.14037	2	0.87197	102	46.26643	202	91.62567	302	136.98491	402	182.34416	502	227.70340	602	273.06264	702	318.42188	802	363.78113	902	409.14037
3	1.30778	103	46.72002	203	92.03286	303	137.43851	403	182.79775	503	228.16058	603	273.51623	703	318.87548	803	364.23472	903	409.59396	3	1.30778	103	46.72002	203	92.03286	303	137.43851	403	182.79775	503	228.16058	603	273.51623	703	318.87548	803	364.23472	903	409.59396
4	1.74137	104	47.17361	204	92.43761	304	137.89210	404	183.25134	504	228.61058	604	273.91623	704	319.27548	804	364.68831	904	410.04755	4	1.74137	104	47.17361	204	92.43761	304	137.89210	404	183.25134	504	228.61058	604	273.91623	704	319.27548	804	364.68831	904	410.04755
5	2.17696	105	47.62720	205	92.83456	305	138.34569	405	183.70493	505	229.06418	605	274.42342	705	319.78266	805	365.14190	905	410.50115	5	2.17696	105	47.62720	205	92.83456	305	138.34569	405	183.70493	505	229.06418	605	274.42342	705	319.78266	805	365.14190	905	410.50115
6	2.61215	106	48.08080	206	93.24004	306	138.79928	406	184.13843	506	229.51777	606	274.87701	706	320.60895	806	365.59550	906	410.95474	6	2.61215	106	48.08080	206	93.24004	306	138.79928	406	184.13843	506	229.51777	606	274.87701	706	320.60895	806	365.59550	906	410.95474
7	3.05238	107	48.53439	207	93.64393	307	139.25288	407	184.61212	507	229.97136	607	275.33060	707	321.69850	807	366.04009	907	411.40833	7	3.05238	107	48.53439	207	93.64393	307	139.25288	407	184.61212	507	229.97136	607	275.33060	707	321.69850	807	366.04009	907	411.40833
8	3.48274	108	48.98798	208	94.04372	308	139.70647	408	185.06571	508	230.42495	608	275.78420	708	322.72237	808	366.49268	908	411.86192	8	3.48274	108	48.98798	208	94.04372	308	139.70647	408	185.06571	508	230.42495	608	275.78420	708	322.72237	808	366.49268	908	411.86192
9	3.91826	109	49.44157	209	94.45082	309	140.16006	409	185.51930	509	230.87855	609	276.23779	709	323.15970	809	366.94268	909	412.31552	9	3.91826	109	49.44157	209	94.45082	309	140.16006	409	185.51930	509	230.87855	609	276.23779	709	323.15970	809	366.94268	909	412.31552
10	4.35392	110	49.89517	210	94.85241	310	140.61365	410	185.97290	510	231.33214	610	276.69138	710	323.50602	810	367.40987	910	412.76911	10	4.35392	110	49.89517	210	94.85241	310	140.61365	410	185.97290	510	231.33214	610	276.69138	710	323.50602	810	367.40987	910	412.76911
11	4.79952	111	50.34876	211	95.25441	311	141.06725	411	186.47290	511	231.78573	611	277.14497	711	323.95422	811	367.86346	911	413.22270	11	4.79952	111	50.34876	211	95.25441	311	141.06725	411	186.47290	511	231.78573	611	277.14497	711	323.95422	811	367.86346	911	413.22270
12	5.24311	112	50.80235	212	95.61519	312	141.52043	412	186.88008	512	232.23932	612	277.59857	712	324.39571	812	368.31705	912	413.67629	12	5.24311	112	50.80235	212	95.61519	312	141.52043	412	186.88008	512	232.23932	612	277.59857	712	324.39571	812	368.31705	912	413.67629
13	5.68970	113	51.25594	213	95.97603	313	141.97404	413	187.33367	513	232.69362	613	278.05216	713	324.84140	813	368.77064	913	414.12989	13	5.68970	113	51.25594	213	95.97603	313	141.97404	413	187.33367	513	232.69362	613	278.05216	713	324.84140	813	368.77064	913	414.12989
14	6.13029	114	51.70954	214	96.32687	314	142.42802	414	187.78727	514	233.14651	614	278.50575	714	325.28619	814	369.22424	914	414.58348	14	6.13029	114	51.70954	214	96.32687	314	142.42802	414	187.78727	514	233.14651	614	278.50575	714	325.28619	814	369.22424	914	414.58348
15	6.58039	115	52.16313	215	96.68237	315	142.88161	415	188.24086	515	233.60010	615	278.95934	715	325.73189	815	369.67783	915	415.03707	15	6.58039	115	52.16313	215	96.68237	315	142.88161	415	188.24086	515	233.60010	615	278.95934	715	325.73189	815	369.67783	915	415.03707
16	7.02167	116	52.61672	216	97.07956	316	143.33521	416	188.69445	516	234.03629	616	279.41294	716	326.17718	816	370.13412	916	415.49066	16	7.02167	116	52.61672	216	97.07956	316	143.33521	416	188.69445	516	234.03629	616	279.41294	716	326.17718	816	370.13412	916	415.49066
17	7.45710	117	53.07031	217	97.47596	317	143.78880	417	189.14804	517	234.50729	617	279.86653	717	326.62257	817	370.58501	917	415.94266	17	7.45710	117	53.07031	217	97.47596	317	143.78880	417	189.14804	517	234.50729	617	279.86653	717	326.62257	817	370.58501	917	415.94266
18	7.88466	118	53.52391	218	97.88315	318	144.24239	418	189.60163	518	234.96088	618	280.32012	718	327.11356	818	371.03661	918	416.39785	18	7.88466	118	53.52391	218	97.88315	318	144.24239	418	189.60163	518	234.96088	618	280.32012	718	327.11356	818	371.03661	918	416.39785
19	8.31826	119	53.97750	219	98.28364	319	144.69598	419	190.05523	519	235.41447	619	280.77371	719	327.56036	819	371.49220	919	416.85144	19	8.31826	119	53.97750	219	98.28364	319	144.69598	419	190.05523	519	235.41447	619	280.77371	719	327.56036	819	371.49220	919	416.85144
20	8.75185	120	54.43109	220	98.69033	320	145.14958	420	190.50882	520	235.86806	620	281.22731	720	328.00665	820	371.94570	920	417.30503	20	8.75185	120	54.43109	220	98.69033	320	145.14958	420	190.50882	520	235.86806	620	281.22731	720	328.00665	820	371.94570	920	417.30503
1	9.19244	121	54.88468	221	99.10033	321	145.60317	421	190.96241	521	236.32165	621	281.68000	721	328.45014	821	372.39038	921	417.75863	1	9.19244	121	54.88468	221	99.10033	321	145.60317	421	190.96241	521	236.32165	621	281.68000	721	328.45014	821	372.39038	921	417.75863
2	9.62903	122	55.33828	222	99.50793	322	146.05676	422	191.41600	522	236.77525	622	282.13449	722	328.89373	822	372.83508	922	418.21222	2	9.62903	122	55.33828	222	99.50793	322	146.05676	422	191.41600	522	236.77525	622	282.13449	722	328.89373	822	372.83508	922	418.21222
3	10.06263	123	55.79187	223	100.01511	323	146.51035	423	191.86960	523	237.22884	623	282.59208	723	329.34733	823	373.27657	923	418.66581	3	10.06263	123	55.79187	223	100.01511	323	146.51035	423	191.86960	523	237.22884	623	282.59208	723	329.34733	823	373.27657	923	418.66581
4	10.49822	124	56.24546	224	100.46470	324	146.96395	424	192.32319	524	237.68243	624	283.04167	724	329.79682	824	373.72016	924	419.11940	4	10.49822	124	56.24546	224	100.46470	324	146.96395	424	192.32319	524	237.68243	624	283.04167	724	329.79682	824	373.72016	924	419.11940
5	11.33981	125	56.69005	225	100.91830	325	147.41754	425	192.77678	525	238.13602	625	283.49527	725	330.20510	825	374.16175	925	419.57300	5	11.33981	125	56.69005	225	100.91830	325	147.41754	425	192.77678	525	238.13602	625	283.49527	725	330.20510	825	374.16175	925	419.57300
6	11.79340	126	57.13265	226	101.37169	326	147.87113	426	193.23037	526	238.58962	626	283.94886	726	330.63010	826	374.60310	926	420.02639	6	11.79340	126	57.13265	226	101.37169	326	147.87113	426	193.23037	526	238.58962	626	283.94886	726	330.63010	826	374.60310	926	420.02639
7	12.24700	127	57.58548	227	101.82648	327	148.32472	427	193.68397	527	239.04321	627	284.40245	727	331.07619	827	375.02094	927	420.48018	7	12.24700	127	57.58548	227	101.82648	327	148.32472	427	193.68397	527	239.04321	627	284.40245	727	331.07619	827	375.02094	927	420.48018
8	12.70059	128	58.03963	228																																			

50	22 67962	150	68 03886	250	113 39811	350	138 75735	450	204 11659	550	249 47584	650	294 83508	750	340 19432	850	385 55356	950	430 91281
1	23 13321	1	68 40246	1	113 85170	1	159 21094	1	204 57018	1	249 92943	1	295 28867	1	340 64791	1	386 00716	1	431 36640
2	23 58681	2	68 04605	2	114 30529	2	159 66453	2	205 02378	2	250 38302	2	295 74226	2	341 10151	2	386 46075	2	431 91999
3	24 00400	3	69 30964	3	114 75888	3	160 11813	3	205 47737	3	250 83661	3	296 19586	3	341 55510	3	386 91434	3	432 27358
4	24 49399	4	69 85323	4	115 21248	4	160 57172	4	205 93096	4	251 20920	4	296 64945	4	342 00869	4	387 36793	4	432 72718
5	24 94758	5	70 30683	5	115 66607	5	161 02531	5	206 38455	5	251 74380	5	297 10304	5	342 46228	5	387 82153	5	433 18077
6	25 35176	6	70 76042	6	116 11966	6	161 47890	6	206 83815	6	252 19739	6	297 51588	6	342 91588	6	388 27512	6	433 63795
7	25 80477	7	71 21407	7	116 57325	7	161 93250	7	207 29174	7	252 65098	7	298 01022	7	343 36947	7	388 72871	7	434 08795
8	26 20336	8	71 66760	8	117 02685	8	162 38609	8	207 74533	8	253 10457	8	298 46382	8	343 82306	8	389 18230	8	434 54155
9	26 76193	9	72 12120	9	117 48044	9	162 83968	9	208 19892	9	253 55817	9	298 91741	9	344 27665	9	389 63590	9	434 99514
60	27 21555	160	72 57479	260	117 93403	360	163 29327	460	208 65252	560	254 01176	660	299 37100	760	344 73025	860	390 08949	960	435 44873
1	27 66914	1	73 02838	1	118 38762	1	163 74687	1	209 10611	1	254 46194	1	299 82459	1	345 13384	1	390 54308	1	435 90232
2	27 12273	2	73 48197	2	118 84122	2	164 20046	2	209 55970	2	254 91894	2	300 27819	2	345 63743	2	390 99667	2	436 35592
3	27 57632	3	73 93557	3	119 29481	3	164 65405	3	210 01329	3	255 37254	3	301 71578	3	346 09102	3	391 45027	3	436 80951
4	28 02992	4	74 38916	4	119 74840	4	165 10764	4	210 46689	4	255 82613	4	302 18537	4	346 54461	4	391 90386	4	437 26310
5	28 48351	5	74 84275	5	120 20199	5	165 56124	5	210 92048	5	256 27972	5	303 63896	5	346 99821	5	392 35745	5	437 71669
6	28 93710	6	75 29684	6	120 65580	6	166 01463	6	211 37407	6	256 73331	6	304 09256	6	347 45180	6	392 81104	6	438 17029
7	29 39069	7	75 75034	7	121 10918	7	166 46842	7	211 82766	7	257 18691	7	305 54681	7	347 90539	7	393 26463	7	438 62388
8	30 84728	8	76 20353	8	121 56277	8	166 92201	8	212 28126	8	257 64050	8	306 09827	8	348 35988	8	393 71823	8	439 07747
9	31 25788	9	76 65712	9	122 01636	9	167 37561	9	212 73485	9	258 09409	9	307 59597	9	348 81258	9	394 17182	9	439 53106
70	31 75147	170	77 11071	270	122 46996	370	167 82920	470	213 18844	570	258 54768	670	303 90693	770	349 26617	870	394 62541	970	439 98465
1	32 20506	1	77 56431	1	122 92355	1	168 28279	1	213 64203	1	259 00128	1	304 36052	1	349 71976	1	395 07900	1	440 43825
2	32 65965	2	78 01790	2	123 37714	2	168 73638	2	214 09563	2	259 45487	2	305 81411	2	350 17335	2	395 53260	2	440 89184
3	33 11324	3	78 47149	3	123 83073	3	169 18998	3	214 54922	3	259 90846	3	306 26770	3	350 62695	3	395 98619	3	441 34543
4	33 56584	4	78 92509	4	124 28433	4	169 64357	4	215 00281	4	260 36205	4	306 72130	4	351 08054	4	396 43978	4	441 79902
5	34 01943	5	79 37867	5	124 73792	5	170 09716	5	215 45640	5	260 81555	5	307 17489	5	351 53415	5	396 89327	5	442 25262
6	34 47302	6	79 83227	6	125 19151	6	170 55075	6	215 91000	6	261 26924	6	308 62848	6	351 98772	6	397 34697	6	442 70631
7	34 92662	7	80 28586	7	125 64510	7	171 00483	7	216 36539	7	261 72283	7	309 08207	7	352 44122	7	397 80056	7	443 15980
8	35 38021	8	80 73945	8	126 09869	8	171 45794	8	216 81718	8	262 17642	8	309 53507	8	352 89451	8	398 25415	8	443 61339
9	35 83360	9	81 19304	9	126 55223	9	171 91153	9	217 27077	9	262 63002	9	309 98926	9	353 34631	9	398 70774	9	444 06699
80	36 28739	180	81 64664	280	127 00588	380	172 36512	480	217 72437	580	263 08361	680	308 44285	780	353 80209	880	399 16134	980	444 52058
1	36 74039	1	82 10023	1	127 45997	1	168 82871	1	218 17796	1	263 53720	1	309 89644	1	354 25569	1	399 61493	1	444 97417
2	37 19436	2	82 55382	2	127 91306	2	173 27821	2	218 63159	2	263 99079	2	309 35004	2	354 70928	2	400 06852	2	445 42776
3	37 64517	3	83 00741	3	128 36666	3	173 73590	3	219 08514	3	264 44330	3	309 80363	3	355 16287	3	400 52211	3	445 88136
4	38 10176	4	83 46101	4	128 82025	4	174 17949	4	219 53874	4	264 89798	4	310 25722	4	355 61646	4	400 97571	4	446 33495
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 42930	5	446 78894
6	39 00995	6	84 36819	6	129 72743	6	175 08668	6	220 44592	6	265 80516	6	311 16441	6	356 52365	6	401 88289	6	447 24213
7	39 46254	7	84 82178	7	130 18103	7	175 54027	7	220 89951	7	266 25876	7	311 61800	7	357 97724	7	402 33648	7	447 69573
8	39 91613	8	85 27538	8	130 63462	8	175 99386	8	221 35370	8	266 71235	8	312 07139	8	358 43063	8	402 79008	8	448 14982
9	40 36973	9	85 72897	9	131 08621	9	176 44745	9	221 80670	9	267 16594	9	312 52518	9	358 88493	9	403 24307	9	448 60291
90	40 82332	190	86 18256	290	131 54180	390	176 90105	490	222 26029	590	267 61953	690	312 97878	790	358 38302	890	403 69726	990	449 05650
1	41 27691	1	86 63615	1	131 99589	1	177 35944	1	222 71388	1	268 07372	1	313 43227	1	358 79301	1	404 15085	1	449 51010
2	41 73050	2	87 08975	2	132 44899	2	177 81823	2	223 16777	2	268 52672	2	313 88506	2	359 24520	2	404 60445	2	450 96369
3	42 18419	3	87 54334	3	132 90238	3	178 27682	3	223 62107	3	269 98031	3	314 33955	3	359 69850	3	405 05804	3	451 41728
4	42 63769	4	87 99693	4	133 35617	4	178 73582	4	224 07466	4	269 43590	4	314 79314	4	360 13239	4	405 51163	4	451 87087
5	43 09128	5	88 45052	5	133 80977	5	179 19601	5	224 52825	5	269 88749	5	315 24674	5	360 60598	5	405 96522	5	452 32447
6	43 54487	6	88 90412	6	134 26336	6	179 65260	6	224 98184	6	270 34109	6	315 70033	6	361 05952	6	406 41882	6	452 77806
7	43 99947	7	89 35771	7	134 71695	7	180 07619	7	225 43544	7	270 79468	7	316 15392	7	361 51316	7	406 87241	7	453 23165
8	44 45206	8	89 81130	8	135 17054	8	180 52979	8	225 88903	8	271 24827	8	316 60751	8	362 96676	8	407 32600	8	453 68524
9	44 90565	9	90 26489	9	135 62414	9	180 98338	9	226 34262	9	271 70186	9	317 06111	9	363 42035	9	407 77939	9	454 13884

50	110, 2311	150	330, 6934	250	551, 1556	350	771, 6178	450	992, 0801	550	1, 212, 5423	650	1, 433, 0045	750	1, 653, 4668	850	1, 873, 9290	950	2, 094, 3912
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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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