A SUPPLEMENT OF TABLES AND SCALES TO

HOW MANY?

A DICTIONARY OF UNITS OF MEASUREMENT

PASIG CITY, 23 MARCH 2013

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Apgar Scoring

	Sign	0 points	1 point	2 points
A	Activity (Muscle tone)	limp	limbs flexed	active movement
P	Pulse (heart rate)	absent	< 100/min	> 100/min
G	Grimace (response to smell or foot slap)	absent	grimace	cough or sneeze (nose) cry and withdrawal of foot (foot slap)
A	Appearance (color)	blue	body pink extremities blue	pink all over
R	Respiration (breathing)	absent	irregular weak crying	good strong cry

The total Apgar score is the sum of the scores for the five signs.

Beaufort Scales (Wind Speed)

Force	Speed			Name	Conditions at Sea	Conditions on Land
	knots	km/h	mi/h			
0	< 1	< 2	< 1	Calm	Sea like a mirror.	Smoke rises vertically.
1	1-3	1-5	1-4	Light air	Ripples only.	Smoke drifts and leaves rustle.
2	4-6	6-11	5-7	Light breeze	Small wavelets (0.2 m). Crests have a glassy appearance.	Wind felt on face.
3	7-10	12-19	8-11	Gentle breeze	Large wavelets (0.6 m), crests begin to break.	Flags extended, leaves move.
4	11-16	20-29	12-18	Moderate breeze	Small waves (1 m), some whitecaps.	Dust and small branches move.

5	17-21	30-39	19-24	Fresh breeze	Moderate waves (1.8 m), many white-caps.	Small trees begin to sway.
6	22-27	40-50	25-31	Strong breeze	Large waves (3 m), probably some spray.	Large branches move, wires whistle, umbrellas are difficult to control.
7	28-33	51-61	32-38	Near gale	Mounting sea (4 m) with foam blown in streaks downwind.	Whole trees in motion, inconvenience in walking.
8	34-40	62-74	39-46	Gale	Moderately high waves (5.5 m), crests break into spindrift.	Difficult to walk against wind. Twigs and small branches blown off trees.
9	41-47	76-87	47-54	Strong gale	High waves (7 m), dense foam, visibility affected.	Minor structural damage may occur (shingles blown off roofs).
10	48-55	88-102	55-63	Storm	Very high waves (9 m), heavy sea roll, visibility impaired. Surface generally white.	Trees uprooted, structural damage likely.
11	56-63	103-118	64-73	Violent storm	Exceptionally high waves (11 m), visibility poor.	Widespread damage to structures.
12	64+	119+	74+	Hurricane	14 m waves, air filled with foam and spray, visibility bad.	Severe structural damage to buildings, wide spread devastation.

Note: *Wave heights apply to the open sea; waves in sheltered waters will be lower and steeper. As sailors know, other factors such as swell and depth can also modify wave heights.*

Statistical Bale Weights for Cotton

Data posted by Cotton Outlook.

Australia	227 kg
Colombia	233 kg
Mexico	220 kg
Nigeria	185 kg
Uganda	182 kg
India/Pakistan	170 kg
South Africa	200 kg
Egypt	327 kg
Sudan	191 kg
Tanzania	181 kg
USA	218 kg

U.S. Commercial Bushel Sizes

Grains

Commodity	Weight per bushel (lb)
Alfalfa	60
Barley	48
Clover, Alsike	60
Clover, Crimson	60
Clover, Ladino	60
Clover, White	60
Clover, Red	60
Clover Sweet	60
Corn, shelled	56
Corn, ear	70
Cotton	32
Cowpeas	60
Flax	60
Grass, Brome (smooth)	14
Grass, Blue	14
Grass, Fescue (tall)	14
Grass, Orchard	14

Grass, Redtop	14
Grass, Timothy	45
Lespedeza	40-50
Millet	50
Oats	32
Rapeseed	60
Rye	56
Sorghum, forage	50
Sorghum, grain	56
Soybeans	60
Sudan grass	28
Sunflower (oil type)	24-32
Trefoil, Birdsfoot	60
Vetch	60
Wheat	60

Data from the University of Missouri's Agricultural Publication G4020, by William J. Murphy, Department of Agronomy.

Fruits and Vegetables

Commodity	Weight per bushel (lb)
Apples	48
Corn (in ear)	70
Cowpeas	60
Cucumbers	48
Eggplant	33
English Peas (in hull)	30
Field Peas	25
Lima Beans (unshelled)	30
Muscadines	50
Mustard Greens	18
Okra	26
Onions	57
Peaches	50
Pole Beans	28
Shelled Corn	56
Snap Beans	30

Spinach	20
Sweet Potatoes (dry)	50
Sweet Potatoes (green)	55
Tomatoes	53
Turnip Greens (dry)	16
Turnip Greens (wet)	18
Turnips (without tops)	54

Data from the Georgia Farm Bureau, which states, "These weights are based on federal standards and can be used as general guidelines when purchasing these commodities in bushel quantities."

Danjon Scale of Lunar Eclipse Brightness

Lunar eclipses differ greatly in appearance, because varying amounts of light are refracted or scattered into the Earth's shadow by its atmosphere. The darkest eclipses occur when clouds of volcanic ash high in the atmosphere block most of this light. The following scale, intended for visual observers, was designed by the French astronomer André Louis Danjon (1890-1967).

L = 0 Very dark eclipse. Moon almost invisible, especially at mid-totality.
L = 1 Dark Eclipse, gray or brownish in coloration. Details distinguishable only with difficulty.
L = 2 Deep red or rust-colored eclipse. Very dark central shadow, while outer edge of umbra is relatively bright.
L = 3 Brick-red eclipse. Umbral shadow usually has a bright or yellow rim.
L = 4 Very bright copper-red or orange eclipse. Umbral shadow has a bluish, very bright rim.

Source: *Danjon Scale of Lunar Eclipse Brightness, posted by the U.S. NASA Goddard Spaceflight Center.*

Drought Severity Classification

Source: U.S. National Drought Mitigation Center.

Category	Description	Possible Impacts	Palmer Drought Index	CPC Soil Moisture Model (Percentiles)	USGS Weekly Streamflow (Percentiles)	Percent of Normal Precip	Standardized Precipitation Index (SPI)	Satellite Vegetation Health Index
D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures; fire risk above average. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.	-1.0 to -1.9	21-30	21-30	<75% for 3 months	-0.5 to -0.7	36-45
D1	Moderate Drought	Some damage to crops, pastures; fire risk high; streams, reservoirs, or wells low, some water shortages developing or imminent, voluntary water use restrictions requested	-2.0 to -2.9	11-20	11-20	<70% for 3 months	-0.8 to -1.2	26-35

D2	Severe Drought	Crop or pasture losses likely; fire risk very high; water shortages common; water restrictions imposed	-3.0 to -3.9	6-10	6-10	<65% for 6 months	-1.3 to -1.5	16-25
D3	Extreme Drought	Major crop/pasture losses; extreme fire danger; widespread water shortages or restrictions	-4.0 to -4.9	3-5	3-5	<60% for 6 months	-1.6 to -1.9	6-15
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; exceptional fire risk; shortages of water in reservoirs, streams, and wells, creating water emergencies	-5.0 or less	0-2	0-2	<65% for 12 months	-2.0 or less	1-5

Additional indices used, mainly during the growing season, include the USDA/NASS Topsoil Moisture, Crop Moisture Index (CMI), and Keetch Byram Drought Index (KBDI). Indices used primarily during the snow season and in the West include the River Basin Snow Water Content, River Basin Average Precipitation, and the Surface Water Supply Index (SWSI).

Enhanced Fujita Tornado Intensity Scale

Effective February 1, 2007, the U.S. National Weather Service has revised the Fujita scale for estimating the strength of tornados. The new Enhanced F Scale estimates the strongest 3-second wind gust based on the degree of damage to one or more of 28 classes of trees or structures. Full information on the new scale is available here from the NWS Storm Prediction Center in Kansas City, Missouri.

EF Number	Maximum 3-second Gust (mi/h)	Maximum 3-second Gust (km/h)	Maximum 3-second Gust (knots)
EF0	65-85	105-137	56-74
EF1	86-110	138-178	75-96
EF2	111-135	179-217	97-117
EF3	136-165	218-265	118-143
EF4	166-200	266-322	144-174
EF5	Over 200	Over 322	Over 174

Glasgow Coma Scale

The Glasgow Coma Scale provides a score in the range 3-15; patients with scores of 3-8 are usually said to be in a coma. The total score is the sum of the scores in three categories. For adults the scores are as follows:

Eye Opening Response	Spontaneous—open with blinking at baseline	4 points
	Opens to verbal command, speech, or shout	3 points
	Opewns to pain, not applied to face	2 points
	None	1 point

Verbal Response	Oriented	5 points
	Confused conversation, but able to answer questions	4 points
	Inappropriate responses, words discernible	3 points
	Incomprehensible speech	2 points
	None	1 point
Motor Response	Obeys commands for movement	6 points
	Purposeful movement to painful stimulus	5 points
	Withdraws from pain	4 points
	Abnormal (spastic) flexion, decorticate posture	3 points
	Extensor (rigid) response, decerebrate posture	2 points
	None	1 point

For children under 5, the verbal response criteria are adjusted as follows:

Score	2 to 5 years	0 to 23 months
5	Appropriate words or phrases	Smiles or coos appropriately
4	Inappropriate words	Cries and consolable
3	Persistent cries and/or screams	Persistent inappropriate crying &/or screaming
2	Grunts	Grunts or is agitated or restless
1	No response	No response

Abrasive Grit Sizes

Data is from Newport Glass.

Grit Size	Inches (avg)	Inches (max)	Inches (min)	Microns (avg)	Microns (max)	Microns (min)
8	0.087	0.130	0.065	2210	3300	1650
10	0.073	0.105	0.055	1854	2667	1397

12	0.063	0.090	0.045	1600	2286	1143
14	0.053	0.075	0.037	1346	1905	940
16	0.043	0.065	0.031	1092	1650	787
20	0.037	0.053	0.026	940	1346	660
24	0.027	0.043	0.018	686	1092	457
30	0.022	0.032	0.014	559	813	356
36	0.019	0.030	0.012	483	762	305
46	0.014	0.022	0.0095	356	559	241
54	0.012	0.0195	0.0080	305	495	203
60	0.010	0.0160	0.0065	254	406	165
70	0.008	0.0130	0.0050	203	330	127
80	0.0065	0.0115	0.0040	165	292	102
90	0.0057	0.0095	0.0035	145	241	89
100	0.0048	0.0080	0.0025	122	203	63
120	0.0040	0.0065	0.0020	102	165	50
150	0.0035	0.0055	0.0015	89	140	38
180	0.0030	0.0045	0.0010	76	114	25
220	0.0025	0.0040	0.0008	63	102	20
240	0.0020	0.0033	0.00099	50	85	25
280	0.00154	0.0028	0.00075	39	70	9
320	0.00122	0.0024	0.00055	31	60	14
400	0.00087	0.0018	0.00043	22	45	11
500	0.00075	0.0016	0.00039	19	40	10
600	0.00063	0.0014	0.00035	16	35	9
700	0.00055	0.0013	0.00028	14	32	7
800	0.00047	0.0012	0.00020	12	30	5
900	0.00035	0.0009	0.00012	9	23	3
1000	0.00028	0.0009	0.00008	7	23	2
CF1	0.00189	0.00374	0.00087	48	95	22
F	0.00160	0.00303	0.00071	40	77	18
FF	0.00130	0.00270	0.00055	33	67	14
FFF Coarse	0.00099	0.00217	0.00043	25	55	11
FFF	0.00075	0.00180	0.00039	19	45	10
FFFF	0.00043	0.00140	0.00016	11	35	4

Hat Sizes

Source: *Things OZ.*

Aus/ UK	6 3/8	6 1/2	6 5/8	6 3/4	6 7/8	7	7 1/8	7 1/4	7 3/8	7 1/2	7 5/8	7 3/4	7 7/8
US	6 1/2	6 5/8	6 3/4	6 7/8	7	7 1/8	7 1/4	7 3/8	7 1/2	7 5/8	7 3/4	7 7/8	8
Metric	52	53	54	55	56	57	58	59	60	61	62	63	64
Other			S		M		ML	L		XL		XXL	

Modified Mercalli Earthquake Intensity Scale

This description of the Mercalli scale is from the U.S. Geological Survey pamphlet *The Severity of an Earthquake* (1986).

Mercalli magnitude	Effects observed
I	Not felt except by a very few under especially favorable conditions.
II	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Felt quite noticeably by persons indoors, especially on the upper floors of buildings. Many do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.
IV	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Felt by nearly everyone; many awakened. Some dishes and windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Felt by all; many frightened and run outdoors, walk unsteadily. Windows, dishes, glassware broken, books off shelves, some heavy furniture moved or overturned; a few instances of fallen plaster. Damage slight.

VII	Difficult to stand. Furniture broken. Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture moved.
IX	General panic... Damage considerable in specially designed structures, well designed frame structures thrown out of plumb. Damage great even in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Some well built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.
XI	Few, if any masonry structures remain standing. Bridges destroyed. Rails bent greatly.
XII	Damage total. Lines of sight and level distorted. Objects thrown into the air.

USFDA Daily Values

The daily values fall in two groups, Daily Reference Values (DRVs) for energy-producing nutrients and Reference Daily Intakes (RDIs) for vitamins and minerals. The DRVs are based on 2,000 calories a day for adults and children over 4 only. The RDIs are based on the National Academy of Sciences's 1998 Recommended Dietary Allowances.

Daily Reference Values

Food Component	DRV
fat	65 grams (g)
saturated fatty acids	20 g
cholesterol	300 milligrams (mg)
total carbohydrate	300 g
fiber	25 g
sodium	2,400 mg

potassium	3,500 mg
protein*	50 g

** DRV for protein does not apply to certain populations; Reference Daily Intake (RDI) for protein has been established for these groups: children 1 to 4 years: 16 g; infants under 1 year: 14 g; pregnant women: 60 g; nursing mothers: 65 g.*

Reference Daily Intakes (RDIs)

Nutrient	Amount
vitamin A	5,000 International Units (IU)
vitamin C	60 milligrams (mg)
thiamin	1.5 mg
riboflavin	1.7 mg
niacin	20 mg
calcium	1.0 gram (g)
iron	18 mg
vitamin D	400 IU
vitamin E	30 IU
vitamin B_6	2.0 mg
folic acid	0.4 mg
vitamin B_{12}	6 micrograms (mcg)
phosphorus	1.0 g
iodine	150 mcg
magnesium	400 mg
zinc	15 mg
copper	2 mg
biotin	0.3 mg
pantothenic acid	10 mg

Data from the U.S. Food and Drug Administration's page, Daily Values Encourage Healthy Diet.

ISO Standard Paper Sizes

Data from Markus Kuhn, International Standard Paper Sizes. See this site for a complete discussion of how the ISO 216 paper sizing system works. This system is used in most of the world, replacing traditional paper sheet sizes such as the 8.5 by 11 inch size familiar in the U.S. (See *Page* **B16** ~ *ISO Standard Paper Sizes*

this link for information on the traditional paper sizes.)
In brief, international paper sizes are in three series, designated A*n*, B*n*, and C*n*. Increasing the number n by 1 halves the area of the sheet, so that, for example, an A5 sheet is an A4 sheet cut in half. The basic sheet A0 has an area of 1 square meter, so an A4 sheet (the standard size for business letters) has an area of 1/16 square meter. The ratio between the height and width of a sheet is always the square root of 2 (about 1.414). The area of a B*n* sheet is the area of the A*n* sheet multiplied by the square root of 2, so a B5 sheet, for example, is intermediate in size between an A4 and an A5 sheet. The C*n* size, intended mostly for envelopes, has an area equal to the fourth root of 2 (about 1.189) times the area of the A*n* sheet, which means that an A*n* sheet fits nicely, unfolded, in a C*n* envelope.

The dimensions of the sheets are computed from these formulas:

Format	Width (m)	Height (m)
A*n*	$2^{-1/4-n/2}$	$2^{1/4-n/2}$
B*n*	$2^{-n/2}$	$2^{1/2-n/2}$
C*n*	$2^{-1/8-n/2}$	$2^{3/8-n/2}$

With roundoff, the dimensions (in millimeters) are as follows:

A Series Formats	
4A0	1682 × 2378
2A0	1189 × 1682
A0	841 × 1189
A1	594 × 841
A2	420 × 594
A3	297 × 420
A4	210 × 297
A5	148 × 210
A6	105 × 148
A7	74 × 105
A8	52 × 74
A9	37 × 52
A10	26 × 37

B Series Formats	
B0	1000 × 1414
B1	707 × 1000
B2	500 × 707
B3	353 × 500
B4	250 × 353
B5	176 × 250
B6	125 × 176
B7	88 × 125
B8	62 × 88
B9	44 × 62
B10	31 × 44

C Series Formats	
C0	917 × 1297
C1	648 × 917
C2	458 × 648
C3	324 × 458
C4	229 × 324
C5	162 × 229
C6	114 × 162
C7	81 × 114
C8	57 × 81
C9	40 × 57
C10	28 × 40

Note: *To convert the dimensions to inches, divide by 25.4. Thus an A4 sheet measures 8.27 by 11.69 inches, making it a little taller and narrower than an 8.5 by 11 inch sheet.*

Traditional Paper Sizes

These traditional paper sizes are mostly of British origin. They are quite obsolete in Britain today, replaced by the modern ISO paper sizes. Some of them are still used, at least informally, in the U.S.

	Dimensions (inches)
Executive	7.25 x 10.5
Quarto	8 x 10
Letter	8.5 x 11
Legal	8.5 x 14
Ledger (Tabloid)	11 x 17
Foolscap	13.5 x 17
Foolscap, oblong double	13.5 x 34
Pinched post	14.5 x 18.5
Crown (Post)	15 x 20
Post	15.25 x 19
Large post	16.5 x 21
Foolscap, double	17 x 27
Demy	17.5 x 22.5
Medium	18 x 23
Post, double	19 x 30.5
Royal	20 x 25
Crown, double	20 x 30
Large post, double	21 x 33
Imperial	22 x 30
Demy, double	22.5 x 35
Elephant	23 x 28
Medium, double	23 x 36
Royal, double	25 x 40
Atlas	26 x 34
Foolscap, quad	27 x 34
Crown, quad	30 x 40
Imperial, double	30 x 44
Demy, quad	35 x 45

Medium, quad	36 x 46
Crown, double quad	40 x 60

This size information is based on Matt Roberts and Don Etherington, Bookbinding and the conservation of books: a dictionary of descriptive terminology. This reference, published by the U.S. government and not copyrighted, has been posted online by Stanford University. Some additional sizes are taken from the Brainy Encyclopedia web site.

Basic Size for Paper

In the U.S. paper industry, measurements of paper density and weight are based on traditional sheet sizes which vary with the type of paper. These standard sheet specifications have persisted, even though in many cases sheets of those sizes are no longer manufactured. Paper is described as, say, 24 pound weight if one ream (500 sheets) cut in the basic size would have a mass of 24 pounds.

Type of paper	Size (in inches)
Bible	25 x 38
Blanks	22 x 38
Blotting	19 x 24
Bond	17 x 22
Book	25 x 38
Cover	20 x 26
Glassine	24 x 36
Gummed	25 x 38
Index	25 1/2 x 30 1/2
Ledger	17 x 22
Manifold	17 x 22
Manuscript	18 x 31
Mimeograph	17 x 22
Newsprint	24 x 36
Offset	25 x 38
Onionskin	17 x 22
Opaque	25 x 38
Poster	24 x 36

Tag	22 1/2 x 28 1/2
	24 x 36
Text	25 x 38
Tissues	24 x 36
Vellum bristol	22 1/2 x 28 1/2
Writing	17 x 22

The following basic size information is taken from Matt Roberts and Don Etherington, Bookbinding and the conservation of books: a dictionary of descriptive terminology. This reference, published by the U.S. government and not copyrighted, has been posted online by Stanford University.

Radiocarbon Year Conversion

Age in Radiocarbon years	Age in Calendar years
9 600	11 000
10 200	12 000
11 000	13 000
12 000	14 000
12 700	15 000
13 300	16 000
14 200	17 000
15 000	18 000
15 900	19 000
16 800	20 000
17 600	21 000
18 500	22 000
19 300	23 000
20 000	24 000

Source: *This table was posted by the Memphis Archaeological and Geological Society. However, the data comes from Archaeology's Dating Game, a sidebar in the article Who Were the First Americans, by Sasha Nemecek, published by Scientific American in September 2000.*

Saffir-Simpson Hurricane Intensity Scale

Saffir-Simpson Scale

Saffir-Simpson Category	Maximum sustained wind speed			Minimum surface pressure	Storm surge	
	mi/h	m/s	kt	mb	ft	m
1	74-95	33-42	64-82	>980	3-5	1.0-1.7
2	96-110	43-49	83-95	979-965	6-8	1.8-2.6
3	111-130	50-58	96-113	964-945	9-12	2.7-3.8
4	131-155	59-69	114-135	944-920	13-18	3.9-5.6
5	156+	70+	136+	<920	19+	5.7+

Damage

Category	Damage Level	Description	Example
1	Minimal	Damage primarily to shrubbery, trees, foliage, and unanchored homes. No real damage to other structures. Some damage to poorly constructed signs. Low-lying coastal roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.	Hurricane Earl (1998)
2	Moderate	Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Evacuation of some shoreline residences and low-lying areas required.	Hurricane Georges (1998)
3	Extensive	Foliage torn from trees; large trees blown down. Practically all poorly constructed signs blown down. Flat terrain 5 feet or less above sea level flooded inland 8 miles or more. Evacuation of low- lying residences within several blocks of shoreline possibly required.	Hurricane Fran (1996)

4	Extreme	Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors. Complete failures of roofs on many small residences. Massive evacuation of all residences within 500 yards of shore possibly required, and of single- story residences within 2 miles of shore.	Hurricane Andrew (1992)
5	Catastrophic	Considerable damage to roofs of buildings. Extensive shattering of glass in windows and doors. Massive evacuation of residential areas on low ground within 5 to 10 miles of shore possibly required.	Hurricane Camille (1969)

Data is from the Hurricane FAQ posted by the U.S. Atlantic Oceanographic and Meteorological Laboratory in Miami, Florida.

Sheet Metal Thickness Gauges

Gauge (ga)	Standard Steel Thickness (inches)	Galvanized Steel Thickness (inches)	Aluminum Thickness (inches)
3	0.2391		0.2294
4	0.2242		0.2043
5	0.2092		0.1819
6	0.1943		0.1620
7	0.1793		0.1443
8	0.1644		0.1285
9	0.1495	0.1532	0.1144
10	0.1345	0.1382	0.1019
11	0.1196	0.1233	0.0907
12	0.1046	0.1084	0.0808
13	0.0897	0.0934	0.0720
14	0.0747	0.0785	0.0641
15	0.0673	0.0710	0.0571
16	0.0598	0.0635	0.0508
17	0.0538	0.0575	0.0453
18	0.0478	0.0516	0.0403

19	0.0418	0.0456	0.0359
20	0.0359	0.0396	0.0320
21	0.0329	0.0366	0.0285
22	0.0299	0.0336	0.0253
23	0.0269	0.0306	0.0226
24	0.0239	0.0276	0.0201
25	0.0209	0.0247	0.0179
26	0.0179	0.0217	0.0159
27	0.0164	0.0202	0.0142
28	0.0149	0.0187	0.0126
29	0.0135	0.0172	0.0113
30	0.0120	0.0157	0.0100
31	0.0105	0.0142	0.0089
32	0.0097	0.0134	0.0080
33	0.0090		0.0071
34	0.0082		0.0063
35	0.0075		0.0056
36	0.0067		

Steel data from Caloritech, for heavier gauges also from Engineer's Edge. Aluminum data from Festiva Tech.

Shot Pellet Diameters

These are birdshot pellet diameters for lead and steel shot. The data was posted by Chuck Adams based on U.S. ammunition makers' catalogs.

Shot size	Pellet diameter	
	mm	in
BBB	4.83	0.190
BB	4.57	0.180
B	4.32	0.170
1	4.06	0.160
2	3.81	0.150
3	3.56	0.140

4	3.30	0.130
5	3.05	0.120
6	2.79	0.110
7 1/2	2.41	0.100
8	2.29	0.090
8 1/2	2.16	0.085
9	2.03	0.080

Shotgun Bore Diameters

Most of this data was taken from the *World Almanac and Book of Facts 1996*; a reader contributed the data for 24-, 28-, and 32-gauge.

Gauge	Bore diameter	
	mm	in
6	23.3	0.92
10	19.7	0.77
12	18.5	0.73
14	17.6	0.69
16	16.8	0.66
20	15.6	0.615
24	14.7	0.58
28	14.0	0.55
32	13.4	0.526

Notes:

- *In some cases it is customary to state the diameter directly in inches: a ".410 gauge" shotgun, more properly called .410 bore, has a bore diameter of 0.41 inch. This measurement is really the caliber rather than a gauge.*
- *The gauge number is intended to be the number of lead balls per pound, the balls being of a size that will just fit into the barrel.*

SI Units for Clinical Data

The following table provides factors for converting conventional units to SI units for selected clinical data. ***Source:*** *JAMA Author Instructions.*

Conversion:

- *To convert from the conventional unit to the SI unit, **multiply** by the conversion factor.*
- *To convert from the SI unit to the conventional unit, **divide** by the conversion factor.*

Component	Conventional Unit	Conversion Factor	SI Unit
Acetaminophen	µg/mL	6.62	µmol/L
Acetoacetic acid	mg/dL	0.098	mmol/L
Acetone	mg/dL	0.172	mmol/L
Acid phosphatase	units/L	1.0	U/L
Alanine	mg/dL	112.2	µmol/L
Alanine aminotransferase (ALT)	units/L	1.0	U/L
Albumin	g/dL	10	g/L
Alcohol dehydrogenase	units/L	1.0	U/L
Aldolase	units/L	1.0	U/L
Aldosterone	ng/dL	0.0277	nmol/L
Alkaline phosphatase	units/L	1.0	U/L
Aluminum	ng/mL	0.0371	µmol/L
Aminobutyric acid	mg/dL	97	µmol/L
Amitriptyline	ng/mL	3.61	nmol/L
Ammonia (as NH_3)	µg/dL	0.587	µmol/L
Amylase	units/L	1.0	U/L
Androstenedione	ng/dL	0.0349	nmol/L
Angiotensin I	pg/mL	0.772	pmol/L
Angiotensin II	pg/mL	0.957	pmol/L
Anion gap	mEq/L	1.0	mmol/L
Antidiuretic hormone	pg/mL	0.923	pmol/L
Antithrombin III	mg/dL	10	mg/L
α_1-Antitrypsin	mg/dL	0.184	µmol/L
Apolipoprotein A	mg/dL	0.01	g/L
Apolipoprotein B	mg/dL	0.01	g/L
Arginine	mg/dL	57.4	µmol/L
Asparagine	mg/dL	75.7	µmol/L
Aspartate aminotransferase (AST)	units/L	1.0	U/L
Bicarbonate	mEq/L	1.0	mmol/L
Bilirubin	mg/dL	17.1	µmol/L

Blood gases (arterial)			
$PaCO_2$	mm Hg	1.0	mm Hg
pH	pH units	1.0	pH units
PaO_2	mm Hg	1.0	mm Hg
Bromide	mg/dL	0.125	mmol/L
C-peptide	ng/mL	0.333	nmol/L
C_1 esterase inhibitor	mg/dL	10	mg/L
C_3 complement	mg/dL	0.01	g/L
C_4 complement	mg/dL	0.01	g/L
Calcitonin	pg/mL	1.0	ng/L
Calcium	mg/dL	0.25	mmol/L
	mEq/L	0.50	mmol/L
Carbon dioxide	mEq/L	1.0	mmol/L
Carboxyhemoglobin	% of hemoglobin saturation	0.01	Proportion of hemoglobin saturation
Carotene	µg/dL	0.0186	µmol/L
Ceruloplasmin	mg/dL	10	mg/L
Chloride	mEq/L	1.0	mmol/L
Cholesterol	mg/dL	0.0259	mmol/L
Citrate	mg/dL	52.05	µmol/L
Copper	µg/dL	0.157	µmol/L
Coproporphyrins (urine)	µg/24 hr	1.527	nmol/d
Corticotropin (ACTH)	pg/mL	0.22	pmol/L
Cortisol	µg/dL	27.59	nmol/L
Cotinine	ng/mL	5.68	nmol/L
Creatine	mg/dL	76.26	µmol/L
Creatine kinase (CK)	units/L	1.0	U/L
Creatinine	mg/dL	88.4	µmol/L
Creatinine clearance	mL/min	0.0167	mL/s
Cyanide	mg/L	23.24	µmol/L
Dehydroepiandrosterone (DHEA)	ng/mL	3.47	nmol/L
Desipramine	ng/mL	3.75	nmol/L
Diazepam	µg/mL	3.512	µmol/L
Digoxin	ng/mL	1.281	nmol/L
Epinephrine	pg/mL	5.46	pmol/L

Erythrocyte sedimentation rate	mm/h	1.0	mm/h
Estradiol	pg/mL	3.671	pmol/L
Estriol	ng/mL	3.467	nmol/L
Estrone	ng/dL	37	pmol/L
Ethanol (ethyl alcohol)	mg/dL	0.217	mmol/L
Ethylene glycol	mg/L	16.11	µmol/L
Ferritin	ng/mL	2.247	pmol/L
α-Fetoprotein	ng/mL	1.0	µg/L
Fibrinogen	mg/dL	0.0294	µmol/L
Fluoride	µg/mL	52.6	µmol/L
Folate	ng/mL	2.266	nmol/L
Follicle-stimulating hormone	mIU/mL	1.0	IU/L
Fructose	mg/dL	55.5	µmol/L
Galactose	mg/dL	55.506	µmol/L
Glucagon	pg/mL	1.0	ng/L
Glucose	mg/dL	0.0555	mmol/L
Glutamine	mg/dL	68.42	µmol/L
γ-Glutamyltransferase (GGT)	units/L	1.0	U/L
Glycated hemoglobin (glycosylated hemoglobin A_1, A1C)	% of total hemoglobin	0.01	Proportion of total hemoglobin
Glycerol (free)	mg/dL	108.59	µmol/L
Glycine	mg/dL	133.3	µmol/L
Haptoglobin	mg/dL	0.10	µmol/L
Hematocrit	%	0.01	Proportion of 1.0
Hemoglobin (whole blood)	g/dL	10.0	g/L
Mass concentration		0.6206	mmol/L
High-density lipoprotein cholesterol (HDL-C)	mg/dL	0.0259	mmol/L
Histidine	mg/dL	64.45	µmol/L
Homocysteine (total)	mg/L	7.397	µmol/L
Human chorionic gonadotropin (HCG)	mlU/mL	1.0	IU/L
Hydroxybutyric acid	mg/dL	96.05	µmol/L
Hydroxyproline	mg/dL	76.3	µmol/L
Immunoglobulin A (IgA)	mg/dL	0.01	g/L

Immunoglobulin D (IgD)	mg/dL	10	mg/L
Immunoglobulin E (IgE)	mg/dL	10	mg/L
Immunoglobulin G (IgG)	mg/dL	0.01	g/L
Immunoglobulin M (IgM)	mg/dL	0.01	g/L
Insulin	μIU/mL	6.945	pmol/L
Iron, total	μg/dL	0.179	μmol/L
Iron binding capacity, total	μg/dL	0.179	μmol/L
lsoleucine	mg/dL	76.24	μmol/L
lsopropanol	mg/L	0.0166	mmol/L
Lactate (lactic acid)	mg/dL	0.111	mmol/L
Lactate dehydrogenase	units/L	1	U/L
Lactate dehydrogenase isoenzymes (LD_1-LD_5)	%	0.01	Proportion of 1.0
Lead	μg/dL	0.0483	μmol/L
Leucine	mg/dL	76.237	μmol/L
Lipase	units/L	1.0	U/L
Lipids (total)	mg/dL	0.01	g/L
Lipoprotein (a)	mg/dL	0.0357	μmol/L
Lithium	mEq/L	1.0	mmol/L
Low-density lipoprotein cholesterol (LDL-C)	mg/dL	0.0259	mmol/L
Luteinizing hormone (LH, leutropin)	IU/L	1.0	lU/L
Lysine	mg/dL	68.5	μmol/L
Magnesium	mg/dL	0.411	mmol/L
	mEq/L	0.50	mmol/L
Manganese	ng/mL	18.2	nmol/L
Methanol	mg/L	0.0312	mmol/L
Methemoglobin	% of total hemoglobin	0.01	Proportion of total hemoglobin
Methionine	mg/dL	67.02	μmol/L
Myoglobin	μg/L	0.0571	nmol/L
Nicotine	mg/L	6.164	μmol/L
Nitrogen, nonprotein	mg/dL	0.714	mmol/L
Norepinephrine	pg/mL	0.00591	nmol/L
Ornithine	mg/dL	75.67	μmol/L

Osmolality	mOsm/kg	1.0	mmol/kg
Osteocalcin	μg/L	0.171	nmol/L
Oxalate	mg/L	11.1	μmol/L
Parathyroid hormone	pg/mL	1.0	ng/L
Phenobarbital	mg/L	4.31	μmol/L
Phenylalanine	mg/dL	60.54	μmol/L
Phenytoin	μg/mL	3.96	μmol/L
Phosphorus	mg/dL	0.323	mmol/L
Plasminogen	mg/dL	0.113	μmol/L
	%	0.01	Proportion of 1.0
Plasminogen activator inhibitor	mIU/mL	1.0	IU/L
Platelets (thrombocytes)	x 103/μL	1.0	x 109/L
Potassium	mEq/L	1.0	mmol/L
Pregnanediol (urine)	mg/24h	3.12	μmol/d
Pregnanetriol (urine)	mg/24 h	2.97	μmol/d
Progesterone	ng/mL	3.18	nmol/L
Prolactin	μg/L	43.478	pmol
Proline	mg/dL	86.86	μmol/L
Prostate-specific antigen	ng/mL	1.0	μg/L
Protein, total	g/dL	10.0	g/L
Prothrombin	g/L	13.889	μmol/L
Prothrombin time (protime, PT)	s	1.0	s
Protoporphyrin, erythrocyte	μg/dL	0.01777	μmol/L
Pyruvate	mg/dL	113.6	μmol/L
Quinidine	μg/mL	3.08	μmol/L
Red blood cell count	x 106/μL	1.0	x 1012/L
Renin	pg/mL	0.0237	pmol/L
Reticulocyte count	% of RBCs	0.01	Proportion of 1.0
Salicylate	mg/L	0.00724	mmol/L
Serine	mg/dL	95.2	μmol/L
Serotonin (5-hydroxytryptamine)	ng/mL	0.00568	μmol/L
Sodium	mEq/L	1.0	mmol/L
Somatomedin-C (insulinlike growth factor)	ng/mL	0.131	nmol/L (coagulation factor II)
Somatostatin	pg/mL	0.611	pmol/L

Taurine	mg/dL	79.91	μmol/L
Testosterone	ng/dL	0.0347	nmol/L
Theophylline	μg/mL	5.55	μmol/L
Thiocyanate	mg/L	17.2	μmol/L
Threonine	mg/dL	83.95	μmol/L
Thyroglobulin	ng/mL	1.0	μg/L
Thyrotropin (thyroid-stimulating hormone, TSH)	mIU/L	1.0	mIU/L
Thyroxine, free (T_4)	ng/dL	12.87	pmol/L
Thyroxine, total (T_4)	μg/dL	12.87	nmol/L
Transferrin	mg/dL	0.01	g/L
Triglycerides	mg/dL	0.0113	mmol/L
Triiodothyronine			
Free (T_3)	pg/dL	0.0154	pmol/L
Resin uptake	%	0.01	Proportion of 1.0
Total (T_3)	ng/dL	0.0154	nmol/L
Troponin I (cardiac)	ng/mL	1.0	μg/L
Troponin T (cardiac)	ng/mL	1.0	μg/L
Tryptophan	mg/dL	48.97	μmol/L
Tyrosine	mg/dL	55.19	μmol/L
Urea nitrogen	mg/dL	0.357	mmol/L
Uric acid	mg/dL	59.48	μmol/L
Valine	mg/dL	85.5	μmol/L
Vasoactive intestinal polypeptide	pg/mL	1.0	ng/L
Vitamin A (retinol)	μg/dL	0.0349	μmol/L
Vitamin B_6 (pyridoxine)	ng/mL	4.046	nmol/L
Vitamin B_{12} (cyanocobalamin)	pg/mL	0.738	pmol/L
Vitamin C (ascorbic acid)	mg/dL	56.78	μmol/L
Vitamin D			
1,25-Dihydroxyvitamin D	pg/mL	2.6	pmol/L
25-Hydroxyvitamin D	ng/mL	2.496	nmol/L
Vitamin E	mg/dL	23.22	μmol/L
Vitamin K	ng/mL	2.22	nmol/L
Warfarin	μg/mL	3.247	μmol/L
White blood cell count	x 10^3/μL	1.0	x 10^9/L

White blood cell differential count (number fraction)	%	0.01	Proportion of 1.0
Zinc	µg/dL	0.153	µmol/L

Solar Flare Intensity

Several systems are in use for measuring the intensity of solar flares. Older systems are based on the appearance of the flare through ground-based telescopes, while newer ones use data from spacecraft.

The most commonly used classification at present measures the maximum flux of X-rays (of wavelength 0.1 to 0.8 nanometer) produced by the flare. The approximate flux is indicated by a letter A, B, C, M, or X , with A being the weakest flares and X the strongest. (The letters C, M, and X stand for Common, Medium, and Xtreme.) Numbers after the letter, as in C6.2 or X14, measure the flux more precisely according to the scheme shown in the table below.

Flare Class	Maximum X-Ray Flux	
	watts per square meter (W/m^2)	ergs per square centimeter per second ($erg/cm^2 \cdot s$)
A*n*	$n \times 10^{-8}$	$n \times 10^{-5}$
B*n*	$n \times 10^{-7}$	$n \times 10^{-4}$
C*n*	$n \times 10^{-6}$	$n \times 10^{-3}$
M*n*	$n \times 10^{-5}$	$n \times 10^{-2}$
X*n*	$n \times 10^{-4}$	$n \times 10^{-1}$

Examples: M4.2 = 4.2 x 10-5 W/m^2; X16 =16 x 10^{-4} W/m^2 = 1.6 x 10^{-3} W/m^2. For A, B, C, and M flares the value of n is between 1.0 and 9.9, but for X scales the value of n can be as large as needed.

Tennis Racquet Gauges

This table compares the U.S. and European gauge numbers measuring the thickness of tennis racket strings.

Source: "Racquet and String Terms" from Tennis-Warehouse.com.

U.S. Gauge	European Gauge	Millimeters
14	11	1.50-1.65
15	9.5	1.41-1.49
15L	9	1.33-1.41
16	8.5	1.26-1.34
16L	8	1.22-1.30
17	7.5	1.16-1.24
18	7	1.06-1.16
19	4	0.90-1.06
20	3.5	0.80-0.90

Torino Impact Hazard Scale

The following revised description of the Torino Scale was posted on the NASA Near Earth Objects Program web site.

No Hazard (White Zone)	**0**	The likelihood of a collision is zero, or is so low as to be effectively zero. Also applies to small objects such as meteors and bodies that burn up in the atmosphere as well as infrequent meteorite falls that rarely cause damage.
Normal (Green Zone)	**1**	A routine discovery in which a pass near the Earth is predicted that poses no unusual level of danger. Current calculations show the chance of collision is extremely unlikely with no cause for public attention or public concern. New telescopic observations very likely will lead to re-assignment to Level 0.

Meriting Attention by Astronomers (Yellow Zone)	**2**	A discovery, which may become routine with expanded searches, of an object making a somewhat close but not highly unusual pass near the Earth. While meriting attention by astronomers, there is no cause for public attention or public concern as an actual collision is very unlikely. New telescopic observations very likely will lead to re-assignment to Level 0.
	3	A close encounter, meriting attention by astronomers. Current calculations give a 1% or greater chance of collision capable of localized destruction. Most likely, new telescopic observations will lead to re-assignment to Level 0. Attention by public and by public officials is merited if the encounter is less than a decade away.
	4	A close encounter, meriting attention by astronomers. Current calculations give a 1% or greater chance of collision capable of regional devastation. Most likely, new telescopic observations will lead to re-assignment to Level 0. Attention by public and by public officials is merited if the encounter is less than a decade away.
Threatening (Orange Zone)	**5**	A close encounter posing a serious, but still uncertain threat of regional devastation. Critical attention by astronomers is needed to determine conclusively whether or not a collision will occur. If the encounter is less than a decade away, governmental contingency planning may be warranted.
	6	A close encounter by a large object posing a serious but still uncertain threat of a global catastrophe. Critical attention by astronomers is needed to determine conclusively whether or not a collision will occur. If the encounter is less than three decades away, governmental contingency planning may be warranted.
	7	A very close encounter by a large object, which if occurring this century, poses an unprecedented but still uncertain threat of a global catastrophe. For such a threat in this century, international contingency planning is warranted, especially to determine urgently and conclusively whether or not a collision will occur.

Certain Collisions (Red Zone)	**8**	A collision is certain, capable of causing localized destruction for an impact over land or possibly a tsunami if close offshore. Such events occur on average between once per 50 years and once per several 1000 years.
	9	A collision is certain, capable of causing unprecedented regional devastation for a land impact or the threat of a major tsunami for an ocean impact. Such events occur on average between once per 10,000 years and once per 100,000 years.
	10	A collision is certain, capable of causing global climatic catastrophe that may threaten the future of civilization as we know it, whether impacting land or ocean. Such events occur on average once per 100,000 years, or less often.

Note: *the Torino Scale was recently revised according to this recent publication:*

Morrison, D., Chapman, C. R., Steel, D., and Binzel R. P. "Impacts and the Public: Communicating the Nature of the Impact Hazard" In Mitigation of Hazardous Comets and Asteroids, (M.J.S. Belton, T.H. Morgan, N.H. Samarasinha and D.K. Yeomans, Eds), Cambridge University Press, 2004.

Australian Tropical Cyclone Categories

Data, provided by the Australian Bureau of Meteorology, is from the Hurricane FAQ posted by the U.S. Atlantic Oceanographic and Meteorological Laboratory in Miami, Florida.

Categories	Winds (strongest gust)	Typical effects (indicative only)
Category 1	<125 km/h	Negligible house damage. Damage to some crops, trees and caravans. Craft may drag moorings.
Category 2	125 - 170 km/h	Minor house damage. Significant damage to signs, trees and caravans. Heavy damage to some crops. Risk of power failure. Small craft may break moorings.
Category 3	170 - 225 km/h	Some roof and structural damage. Some caravans destroyed. Power failure likely.

Category 4	225 - 280 km/h	Significant roofing loss and structural damage. Many caravans destroyed and blown away. Dangerous airborne debris. Widespread power failure.
Category 5	>280 km/h	Extremely dangerous with widespread destruction.

ISO Viscosity Grades

Data from the web site of C&C Oil Company.

ISO Viscosity Grade Numbers	Viscosity Grade Ranges (centistokes at 40 °C)	
	minimum	**maximum**
2	1.98	2.42
3	2.88	3.52
5	4.14	5.06
7	6.12	7.48
10	9.00	11.0
15	13.5	16.5
22	19.8	24.2
32	28.8	35.2
46	41.4	50.6
68	61.2	74.8
100	90.0	110
150	135	165
220	198	242
320	288	352
460	414	506
680	612	748
1000	900	1100
1500	1350	1650

Note: *The viscosity grade numbers of the ISO are the same as those of the ASTM and BSI. The viscosities for the ISO grades are measured at 40 °C, while those of the ASTM and BSI are measured at 100 °F (37.8 °C). Lubricants of a given ASTM or BSI grade are slightly more viscous than lubricants of the corresponding ISO grade.*

Volcanic Explosivity Index

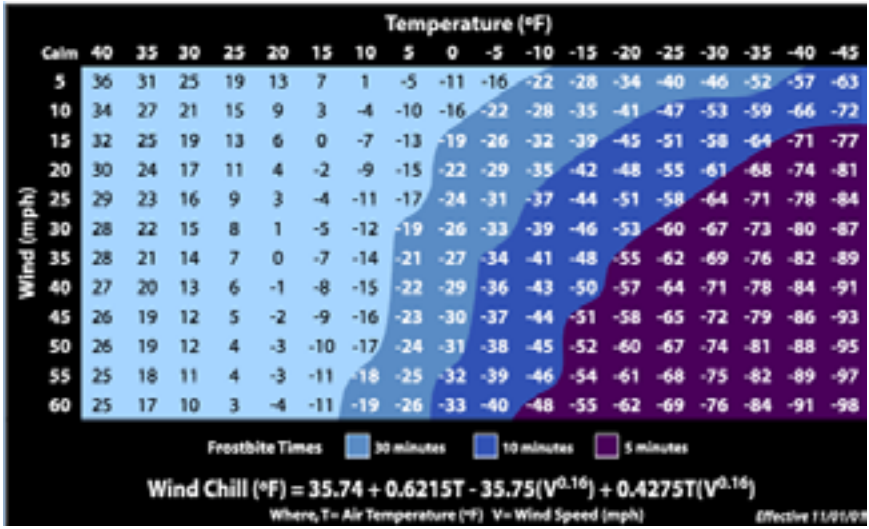
This scale is designed to express the severity of volcanic eruptions.

Source: *Volcano World, an educational site at the University of North Dakota.*

VEI	Description	Plume Height	Volume	Classification	How often	Example
0	non-explosive	< 100 m	10^3s m^3	Hawaiian	daily	Kilauea
1	gentle	100-1000 m	10^4s m^3	Haw/Strombolian	daily	Stromboli
2	explosive	1-5 km	10^6s m^3	Strom/Vulcanian	weekly	Galeras, 1992
3	severe	3-15 km	10^7s m^3	Vulcanian	yearly	Ruiz, 1985
4	cataclysmic	10-25 km	10^8s m^3	Vulc/Plinian	10s of years	Galunggung, 1982
5	paroxysmal	> 25 km	1 km^3	Plinian	100s of years	St. Helens, 1981
6	colossal	> 25 km	10s km^3	Plin/Ultra-Plinian	100s of years	Krakatau, 1883
7	super-colossal	> 25 km	100s km^3	Ultra-Plinian	1000s of years	Tambora, 1815
8	mega-colossal	> 25 km	10^3s km^3	Ultra-Plinian	10 000s of years	Yellowstone, 2 Ma

Wind Chill Temperature Index

This chart of the revised (August 2001) wind chill temperature index was posted by the U.S. National Weather Service office for Minneapolis and St. Paul, Minnesota.



American and British Wire Gauges

Data originally posted by Enginering Zones.

Gauge	Washburn & Moen	British Imperial Standard (S.W.G.)	Birmingham or Stubs	American (A.W.G.) or Brown & Sharpe
7/0	.4900”	.500”		
6/0	.4615”	.464”		.5800”
5/0	.4305”	.432”	.500”	.5165”
4/0	.3938”	.400”	.454”	.4600”
3/0	.3625”	.372”	.425”	.4096”
2/0	.3310”	.348”	.380”	.3648”
1/0	.3065”	.324”	.340”	.3249”
1	.2830”	.300”	.300”	.2893”

2	.2625”	.276”	.284”	.2576”
3	.2437”	.252”	.259”	.2294”
4	.2253”	.232”	.238”	.2043”
5	.2070”	.212”	.220”	.1819”
6	.1920”	.192”	.203”	.1620”
7	.1770”	.176”	.180”	.1442”
8	.1620”	.160”	.165”	.1284”
9	.1483”	.144”	.148”	.1144”
10	.1350”	.128”	.134”	.1018”
11	.1205”	.116”	.120”	.0907”
12	.1055”	.104”	.109”	.0808”
13	.0915”	.092”	.095”	.0719”
14	.0800”	.080”	.083”	.0640”
15	.0720”	.072”	.072”	.0570”
16	.0625”	.064”	.065”	.0508”
17	.0540”	.056”	.058”	.0452”
18	.0475”	.048”	.049”	.0403”
19	.0410”	.040”	.042”	.0358”
20	.0348”	.036”	.035”	.0319”
21	.0317”	.032”	.032”	.0284”
22	.0286”	.028”	.028”	.0253”
23	.0258”	.024”	.025”	.0225”
24	.0230”	.022”	.022”	.0201”
25	.0204”	.020”	.020”	.0179”
26	.0181”	.018”	.018”	.0159”
27	.0173”	.0164”	.016”	.0141”
28	.0162”	.0148”	.014”	.0126”
29	.0150”	.0136”	.013”	.0112”
30	.0140”	.0124”	.012”	.0100”
31	.0132”	.0116”	.010”	.0089”
32	.0128”	.0108”	.009”	.0079”
33	.0118”	.0100”	.008”	.0070”
34	.0104”	.0092”	.007”	.0063”
35	.0095”	.0084”	.005”	.0056”
36	.0090”	.0076”	.004”	.0050”

37	.0085”	.0068”		.0044”
38	.0080”	.0060”		.0039”
39	.0075”	.0052”		.0035”
40	.0070”	.0048”		.0031”
41	.0066”	.0044”		.00280”
42	.0062”	.0040”		.00249”
43	.0060”	.0036”		.00222”
44	.0058”	.0032”		.00198”
45	.0055”	.0028”		.00176”
46	.0052”	.0024”		.00157”
47	.0050”	.0020”		.00140”
48	.0048”	.0016”		.00124”
49	.0046”	.0012”		.00111”
50	.0044”	.0010”		.00099”

Typesetter's Note

For updated data and to experience full interactivity, visit the website at http://www.unc.edu/~rowlett/units/.

Typeset by Brian Guadalupe

If you so requested, here are my Twitter, YouTube, Soundcloud, and Instructables accounts.

Don't forget to drop me a letter!

Print version *soon.*