English Unit refers to a unit in one of a number of systems of units of measurement, some obsolete, and some still in use. In spite of the name, it does not necessarily refer to the (non-SI) system of units still in widespread, but mostly unofficial, use in England itself. The latter is known outside the United States as the Imperial System. The American term 'English unit' includes the Imperial units as well as various other U.S. units such as the U.S. gallon (Queen Anne's wine gallon) and the U.S. bushel (Winchester bushel).

Various standards under the name 'English units' have applied at different times, in different places and for different things. Prior to the Battle of Hastings in 1066 the Anglo-Saxon system of measurement had been based on the units of the barleycorn and the gyrd (rod). This system presumably had Germanic origins. After the Norman conquest, Roman units were reintroduced. The resultant system of English units was a combination of the Anglo-Saxon and Roman systems.

Later development of the English system continued by defining the units by law in the Magna Carta of 1215, and issuing measurement standards from the then capital Winchester. Standards were renewed in 1496, 1588 and 1758. The last Imperial Standard Yard in bronze was made in 1845; it served as the standard in the United Kingdom until the yard was internationally redefined as 0.9144 metre in 1959 (statutory implementation: Weights and Measures Act of 1963).

The use of English units spread throughout the British Isles and to the British colonies. These units form the basis for the Imperial system formerly used in Commonwealth countries and the customary system used in the United States. Whilst these two systems are quite similar there are a number of notable differences between the Imperial and U.S. systems.

Usage of the term "English System" or "English Unit" is common in the US, but it is problematical. It can be ambiguous. It usually refers to either the Imperial System or the US Customary System, and in cases where these two systems differ, it is not not clear which system is being described.

Length

poppyseed
1⁄4 of a barleycorn
barleycorn
Basic Anglo-Saxon unit, the length of a corn of barley. The unit survived after 1066,
redefined as 1⁄3 inch. Note the relation to the grain unit of weight.
digit
3⁄4 inch
finger
7/8 inch
hand
4 inches
ynch, inch
Anglo Saxon inch, 3 barleycorns. Based on the Roman uncia from 1066.
nail
3 digits = 21⁄4 inches = 1/16 yard
palm
3 inches
shaftment
Width of the hand and outstretched thumb, 61⁄2 ynches before 1066, 6 inches
thereafter
span
Width of the outstretched hand, from the tip of the thumb to the tip of the little finger,
3 palms = 9 inches
foot
Usually 13 inches but also other variants. Shortened to 12 inches by basing it on
the Roman pes from 1066.
cubit
Forearm, 18 inches
yard
Introduced after 1066, 3 feet = 36 inches.
ell
Elbow, 20 nails = 11⁄4 yard or 45 inches. Mostly for measuring clothing
fathom
From one fingertip to the other, 6 feet
rod
Saxon gyrd measuring stick, might have been from 20 "natural feet". Retained its
length but redefined as 16 1⁄2 Roman feet after 1066.
chain
four linear rods. Named after the length of surveyor's chain used to measure
distances until quite recently. Any of several actual chains used for land
surveying and divided in links. Gunter's chain, introduced in the 17th century,
is 66 feet.

furlong
"One plough's furrow long" (Saxon furrow is furh), the distance a plough team
could be driven without rest. This varied from region to region depending on
soil type and local habit. In modern context, it is deemed to be 660 feet, 40 rods
or ten chains.
mile
Introduced after 1066, originally the Roman mile at 5000 feet, in 1592 it was
extended to 5280 feet to make it an even number of furlongs, i.e. 8.
league
Usually three miles. Intended to be an hour's walk.

Area

perch
one rod, when referring to length; one square rod when referring to area; one rod by one foot by a foot and a half when referring to volume (usually specifically for masonry stonework)

acre
area of land one chain (four rods) in width by one furlong in length. As the traditional furlong could vary in length from country to country, so did the acre. In England an acre was 4,840 square yards, in Scotland 6,150 square yards and in Ireland 7,840 square yards. It is a Saxon unit, meaning field. Probably meant to be "as much area as could be plowed in one day".

rood
one quarter of an acre, confusingly sometimes called an acre itself in many ancient contexts. One furlong in length by one rod in width, or 40 square rods.

carucate
an area equal to that which can be ploughed by one eight-oxen team in a single year (also called a plough or carve). Approximately 120 roods.

bovate
the amount of land one ox can plough in a single year (also called an oxgate) . Approximately 15 roods or one eighth of a carucate.

virgate
the amount of land a pair of oxen can plough in a single year. Approximately 30 roods (also called yard land).

Administrative units

hide
four to eight bovates. A unit of yield, rather than area, it measured the amount of land able to support a single household for agricultural and taxation purposes.

knight's Fee
five hides. A knight's fee was expected to produce one fully equipped soldier for a knight's retinue in times of war.

hundred or **wapentake** - 100 hides grouped for administrative purposes.

Capacity
Mouthful
about 1⁄2 Ounce
Jigger
Mouthful × 2

Jack or **Jackpot**
Jigger × 2

Jill or **Gill**
Jack × 2

Cup
Jill × 2

Pint
Cup × 2 (and a "Pint's a pound the world around" or in Britain, "A pint of pure water weighs a pound and a quarter")
Quart
Pint × 2

Pottle or **Half Gallon**
Quart × 2

Gallon
Pottle × 2

Peck
Gallon × 2

Half Bushel
Peck × 2

Bushel
Half bushel × 2

Cask, **Strike**, or **Coomb**
Bushel × 2

Barrel
Cask × 2

Hogshead
Barrel × 2

Butt or **Pipe**
hogshead × 2

Tun
Butt × 2 (A tun is a ton) A Tun would actually be about 2,048 lb. but is a pretty close estimate given that you could derive the weight and volume all from mouthfuls of water.

Weight

The Avoirdupois, Troy and Apothecary systems of weights all shared the same finest unit, the grain, however they differ as to the number of grains there are in a dram, ounce and pound. Originally, this grain was the weight of a grain seed from the middle of an ear of barley. There also was a smaller wheat grain, said to be 3⁄4 (barley) grains or about 48.6 milligrams.

Avoirdupois

grain (gr)
64.79891 mg, 1/7000th of a pound
dram/drachm (dr)
27.34375 gr (sixteenth of an ounce) (possibly originated as the weight of silver in ancient Greek coin drachma)
ounce (oz)
16 dr = 437.5 grains ≈ 28 g
pound (lb)
16 oz = 7000 grains ≈ 454 g
quarter
1⁄4 cwt
hundredweight (cwt)
112 lb (long) or 100 lb (short)
ton
20 cwt

Additions:

nail
1/16 cwt = 7 lb
clove
7 lb (wool)
stone (st)
2 cloves = 14 lb (an Anglo-Saxon unit changed to fit in)
tod
2 st = 1⁄4 cwt (long)

Troy and Tower

The Troy and Tower pounds and their subdivisions were used for coins and precious metals. The Tower pound, which is based upon an earlier Anglo-Saxon pound, was abolished in 1527.

In terms of (silver) currency a pound was 20 shillings of 12 pennies each (i.e. 240) from the late 8th century (Charlemagne/Offa of Mercia) to 1971 in Great Britain, but lighter than a troy one. Most old European currencies, like mark, shilling/solidus/groschen/øre, penny/pfennig/denar, taler/dollar/krone, florin/gulden/guilder/pound/z ł oty also belong into this monetary system.

Troy

grain (gr)
≈ 65 mg
pennyweight (dwt)
24 gr ≈ 1.56 g
ounce (oz t)
20 dwt = 480 gr ≈ 31.1 g
pound (lb t)
12 oz t = 5760 gr ≈ 373 g
mark
8 oz t

Tower

tower ounce
183⁄4 dwt = 450 gr ≈ 29 g
tower pound
12 oz T = 225 dwt = 5400 gr ≈ 350 g

Apothecary

grain (gr)
≈ 65 mg
scruple (s ap)
20 gr
dram (dr ap)
3 s ap = 60 gr
ounce (oz ap)
8 dr ap = 480 gr
pound (lb ap)
5760 gr = 1 lb t

Others

Merchants/Mercantile pound
15 oz tower = 6750 gr ≈ 437.4 g
London/Mercantile pound
15 oz troy = 16 oz tower = 7200 gr ≈ 466.6 g
Mercantile stone
12 lb L ≈ 5.6 kg
Tron pound (Edinburgh/Scots)
16 oz Tron ≈ 623.5 g
Butcher's stone
8 lb ≈ 3,63 kg
Sack
26 st = 364 lb ≈ 165 kg

The carat was once specified as four grains in the English-speaking world. Some local units in the English dominion were (re-)defined in simple terms of English units, such as the Indian tola of 180 grains.

English pounds

Pound	Pounds						Ounces			Grains	Metric	
	avdp.	troy	tower	merc.	lond.	metric	avdp.	troy	tower	(gr)	(g)	(kg)
Avoirdupois	1	$175/144$	$35/27$	$29/27$	$35/36$	$10/11$	**16**	$147/12$	$15\frac{5}{9}$	7000	*453.59*	$9/20$
Troy	$144/175$	1	$16/15$	$64/75$	$5/6$	$3/4$	$13\frac{20}{175}$	**12**	$12\frac{4}{5}$	5760	*373.24*	$3/8$
Tower	$27/35$	$15/16$	1	$4/5$	$3/4$	$7/10$	$12\frac{12}{35}$	$11\frac{1}{4}$	**12**	5400	*349.91*	$7/20$
Merchant	$27/29$	$75/64$	$5/4$	1	$15/16$	$7/8$	$15\frac{3}{7}$	$14\frac{1}{16}$	15	6750	*437.39*	$7/18$
London	$35/35$	$6/5$	$4/3$	$16/15$	1	$14/15$	$16\frac{16}{35}$	15	16	7200	*466.55*	$7/15$
Metric	$11/10$	$4/3$	$10/7$	$8/7$	$15/14$	1	$173/5$	*16*	$17\frac{1}{7}$	*7716*	500.00	$1/2$

SI Units (Système International d'Unités)
International System of Units

Unit of	Base SI Units
Amount of substance	= Mole
Electric current	= Ampere
Length	= Meter
Luminous intensity	= Candela
Mass	= Kilogram
Thermodynamic temperature	= Kelvin
Time	= Second

Unit of		Derived or Supplementary SI Units
Acceleration	=	Meter per second squared
Angular acceleration	=	Radian per second squared
Angular velocity	=	Radian per second
Area	=	Square meter
Density	=	Kilogram per cubic meter
Dynamic viscosity	=	Pascal second
Electric capacitance	=	Farad
Electric charge	=	Coulomb
Electric conductance	=	Siemens
Electric field strength	=	Volt per meter
Electric potential	=	Volt
Electric resistance	=	Ohm
Electromotive force	=	Volt
Energy	=	Joule
Force	=	Newton
Frequency	=	Hertz
Heat capacity	=	Joule per Kelvin
Heat flux density	=	Watt per square meter
Illuminance	=	Lux
Inductance	=	Henry

Unit of		Derived or Supplementary SI Units
Irradiance	=	Watt per square meter
Kinematic viscosity	=	Square meter per second
Luminance	=	Candela per square meter
Luminous flux	=	Lumen
Magnetic field strength	=	Ampere per meter
Magnetic flux	=	Weber
Magnetic flux density	=	Tesla
Momentum	=	Kilogram meter per second
Plane angle	=	Radian
Potential difference	=	Volt
Power	=	Watt
Pressure	=	Pascal
Quantity of electricity	=	Coulomb
Quantity of heat	=	Joule
Radiant flux	=	Watt
Solid angle	=	Steradian
Specific heat capacity	=	Joule per kilogram Kelvin
Stress	=	Newton per square meter

Unit of		Derived or Supplementary SI Units
Surface tension	=	Newton per meter
Thermal conductivity	=	Watt per meter Kelvin
Velocity	=	Meter per second
Viscosity	=	Newton-second per square meter
Voltage	=	Volt
Volume	=	Cubic meter
Work	=	Joule

Numerical Value	Prefix	Symbol	Meaning	Exponential Expression
1 000 000 000 000 000 000	**exa**	E	Quintillion	10^{18}
1 000 000 000 000 000	**peta**	P	Quadrillion	10^{15}
1 000 000 000 000	**tera**	T	Trillion	10^{12}
1 000 000 000	**giga**	G	Billion	10^{9}
1 000 000	**mega**	M	Million	10^{6}
1 000	**kilo**	k	Thousand	10^{3}
100	**hecto**	h	Hundred	10^{2}
10	**deca** or **deka**	da	Ten	10^{1}
1				10^{0}
0.1	**deci**	d	One-tenth	10^{-1}
0.01	**centi**	c	one-hundredth	10^{-2}
0.001	**milli**	m	one-thousandth	10^{-3}
0.000 001	**micro**	μ	one-millionth	10^{-6}
0.000 000 001	**nano**	n	one-billionth	10^{-9}
0.000 000 000 001	**pico**	p	one-trillionth	10^{-12}
0.000 000 000 000 001	**femto**	f	one-quadrillionth	10^{-15}
0.000 000 000 000 000 001	**atto**	a	one-quintillionth	10^{-18}