

The English System

Linear Measure

- 12 inches = 1 foot
- 4 inches = 1 hand
- 3 feet = 1 yard
- 5.5 yards = 1 rod
- 40 rods = 1 furlong
- 8 furlongs = 1 mile

Cubic Measure

- 1,728 cubic inches = 1 cubic foot
- 27 cubic feet = 1 cubic yard
- 128 cubic feet (of cut wood) = 1 cord
- 24.75 cubic feet = 1 perch

Measure of Angles and Arcs

- 60 seconds = 1 minute
- 60 minutes = 1 degree
- 90 degrees = 1 quadrant
- 360 degrees = 1 full circle

Surveyor's or Land Measure

- 1 link = 7.92 inches
- 1 rod (also called *pole* or *perch*) = 25 links = $16\frac{1}{2}$ feet
- 1 chain = 100 links = 4 rods = 66 feet
- 1 furlong = 40 rods = 10 chains = $\frac{1}{8}$ mile
- 1 mile = 320 rods = 80 chains = 5,280 feet
- 1 arpent = 0.84625 acre
- 1 acre = 4 roods = 160 square rods = 43,560 square feet
- 1 square mile = 640 acres
- 1 hide = 120 acres
- 32.993 inches < 1 vara < 33.87 inches
- 1 labor = 177.14 acres = 1 million varas
- 1 league (as a unit of length) = approximately 3 miles
- 1 league (as a unit of area) = 25 labors = approximately 4,428 acres (Texas)
or 4,439 acres (California)
- 1 morgen = 0.6309 acre

Square Measure

- 144 square inches = 1 square foot
- 9 square feet = 1 square yard
- 43,560 square feet = 1 acre
- 640 acres = 1 square mile

Board Measure

- 1 board foot = 144 cubic inches
- 1 board foot = $1' \times 1' \times 1''$
- 1 ton round timber = 40 cubic feet
- 1 ton hewn timber = 40 cubic feet

Nautical Measure

- 1.852 kilometers = 1 nautical mile
- 1.150779 statute miles = 1 nautical mile
- 6,076.11549 feet = 1 nautical mile
- 1 nautical mile per hour = 1 knot
- 6 feet = 1 fathom
- 120 fathoms = 1 cable length

Engineer's Chain

12 inches = 1 link

100 links or 100 feet = 1 chain

52.8 chains = 1 mile

Dry Measure—Grain, Fruit, etc.

2 pints (pt.) = 1 quart (qt.) = 67.20 cu. in. = 1.1012 liters (l.)

8 quarts = 1 peck (pk.) = 537.61 cu. in. = 8.8096 l.

4 pecks = 1 bushel (bu.) = 2,150.42 cu. in. = 35.2383 l.

1 imperial dry quart = 1.0320 U.S. dry quarts

Legal avoirdupois weight as fixed by U.S. government of 1 bushel (bu.) of:

wheat = 60 lb.

barley = 48 lb. (varies from 32 to 50 lb. in various states)

oats = 32 lb.

rye = 56 lb.

corn = varies from 52 to 56 lb. in various states

Indian corn = 56 lb.

potatoes = 60 lb. (North Carolina and West Virginia, 56 lb.)

Liquid Measure

4 gills (gi.) = 1 pint (pt.) = 28.875 cu. in. = 0.4732 liter (l.)

2 pints = 1 quart (qt.) = 57.75 cu. in. = 0.9463 l.

4 quarts = 1 gallon (gal.) = 231 cu. in. = 3.7853 l.

31½ gallons = 1 barrel