

## Conversion Factors and Measurements

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### Equivalents

1 gram = 15.432 grains  
1 meter = 39.371 inches or 3.28083 feet  
1 millimeter = 0.03937 inch or 1/25 in. approx  
1 metric ton } = 2204.6 pounds or  
1000 kilograms } = 0.9842 ton or 2240 pounds  
1.016 metric ton } = 1 ton or 2240 pounds  
1016 kilograms }  
1 kilogram per sq centimeter = 14.2234 lb per sq in.  
1 kilogram per sq millimeter = 1422.32 lb per sq in.  
1000 lb per sq in. = { 0.70308 kilograms per sq mm  
70.308 kilograms per sq cm

### Linear measure

12 inches = 1 foot  
3 feet = 1 yard = 36 inches  
5½ yards = 1 rod or pole = 16½ feet  
40 rods = 1 furlong = 220 yards = 660 feet = 1/8 mile  
8 furlongs = 1 statute mile = 1760 yards = 5280 feet  
3 miles = 1 league = 5280 yards = 15,840 feet

### Square measure

144 square inches = 1 square foot  
9 square feet = 1 square yard = 1296 square inches  
30¼ square yards = 1 square rod = 272¼ square feet  
160 square rods = 1 acre = 4840 square yards  
640 acres = 1 square mile = 3,097,600 square yards

### Cubic measure

1728 cubic inches = 1 cubic foot  
27 cubic feet = 1 cubic yard  
144 cubic inches = 1 board foot  
128 cubic feet = 1 cord

### Liquid measure

4 gills = 1 pint  
2 pints = 1 quart = 8 gills  
4 quarts = 1 gallon = 8 pints = 32 gills  
31½ gallons = 1 barrel = 126 quarts  
2 barrels = 1 hogshead = 63 gallons = 252 quarts

### Nautical measure

6 feet = 1 fathom  
100 fathoms = 1 cable's length (ordinary) = 608 ft. (Br.) = 607.61 ft (U.S.)  
120 fathoms = 1 cable's length (U.S. Navy)  
10 cable's lengths = 1 nautical mile = 6080 ft (Br.) = 6076.1033 ft (U.S.)  
1 nautical mile = 1.1508 statute miles  
3 nautical miles = 1 league (marine)  
60 nautical miles = 1 degree (of a terrestrial great circle)

### Avoirdupois weight

27 11/32 grains = 1 dram  
16 drams = 1 ounce = 437½ grains  
16 ounces = 1 pound = 256 drams = 7000 grains  
100 pounds = 1 hundredweight = 1600 ounces  
20 hundredweight = 1 ton = 2000 pounds  
112 pounds = 1 long hundredweight  
20 long hundredweight = 1 long ton = 2240 pounds

### Troy weight

24 grains = 1 pennyweight  
20 pennyweights = 1 ounce = 480 grains  
12 ounces = 1 pound = 240 pennyweights = 5760 grains

### Apothecaries' weight

20 grains = 1 scruple  
3 scruples = 1 dram = 60 grains  
8 drams = 1 ounce = 24 scruples = 430 grains  
12 ounces = 1 pound = 96 drams = 283 scruples = 5760 grains

### Dry measure

2 pints = 1 quart  
8 quarts = 1 peck = 16 pints  
4 pecks = 1 bushel = 32 quarts = 64 pints  
105 quarts = 1 barrel (for fruits, vegetables, and other dry commodities) = 7056 cubic inches

### Circular measure

60 seconds (") = 1 minute (')

60 minutes = 1 degree (°)

90 degrees = 1 quadrant

4 quadrants = 1 circle of circumference

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