**BASIC CONVERSION CHART**

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| **Temperature Conversion:** | | | | | | | |
| Fahrenheit to Celsius: | | | | Celsius to Fahrenheit: | | | |
| Subtract 32 Multiply by 5 Divide by 9 | | | | Multiply by 9 Divide by 5 Add 32 | | | |
| **Easy Conversions** | | | | | |
| **Multiply** | | **By** | | | **To Get** |
| Millimeters | x | 0.0394 | | = | Inches |
| Centimeters | x | 0.3937 | | = | Inches |
| Inches | x | 25.4 | | = | Millimeters |
| Inches | x | 2.54 | | = | Centimeters |
| Feet | x | 30.48 | | = | Centimeters |
| Meters | x | 3.281 | | = | Feet |
| Square Inches | x | 6.45 | | = | Square Centimeters |
| Square Centimeters | x | 155 | | = | Square Inches |
| Square Meters | x | 10.76 | | = | Square Feet |
| Cubic Centimeters | x | .0610 | | = | Cubic Inches |
| Cubic Centimeters | x | 0.0011 | | = | Quarts |
| Cubic Feet | x | 1728 | | = | Cubic Inches |
| Cubic Feet | x | 28.32 | | = | Liters |
| Cubic Inches | x | 0.004329 | | = | Gallons |
| Drams | x | .0625 | | = | Ounces |
| Drams | x | 1.7718 | | = | Grams |
| Liters | x | 0.2642 | | = | U.S. Gallons |
| Fluid Ounces | x | 29.57 | | = | Milliliters |
| Fluid Ounces | x | .02957 | | = | Liters |
| Milliliters | x | 0.03382 | | = | Fluid Ounces |
| Gallons of Water | x | 8.35 | | = | Pounds of Water |
| Pounds of Water | x | 27.65 | | = | Cubic Inches |
| Gallons | x | 231 | | = | Cubic Inches |
| Grams | x | 0.0353 | | = | Ounces |
| Ounces | x | 28.35 | | = | Grams |
| Pounds | x | .45359 | | = | Kilograms |
| Kilograms | x | 2.2046 | | = | Pounds |
| Grams | x | 15.43 | | = | Grains |
| Watts | x | 0.001341 | | = | Horsepower |
| Amps | x | Volts | | = | Watts |
| Atmospheres | x | 14.7 | | = | Lbs per square inch |
| Horsepower | x | .7457 | | = | Kilowatts |
| British Thermal Units | x | 3.927 x 10-4 | | = | Horsepower-hours |
| British Thermal Units | x | 2.928 x 10-4 | | = | Kilowatt-hours |
| Or... divide the Right column by the Middle column to get the value in the Left column. | | | | | |

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| **Common Kitchen Equivalents** | | |
| **Standard** | **Equivalent** | **Equivalent** |
| One pinch or dash | 1/16 teaspoon |  |
| 1 teaspoon | 5 ml | 1/6 ounce |
| 1 tablespoon | 3 teaspoons | 1/2 ounce |
| 1/4 cup | 4 tablespoons | 2 ounces |
| 1/3 cup | 5 tablespoon + 1 teaspoon | 3 ounces |
| 1/2 cup | 8 tablespoons | 4 ounces |
| 1 gill | 1/2 cup | 4 ounces |
| 1 cup | 16 tablespoons | 8 ounces |
| 1 pint | 2 cups | 16 ounces |
| 1 quart | 4 cups | 32 ounces |
| 1 quart | 2 pints | 32 ounces |
| 1 gallon | 4 quarts | 128 ounces |
| 1 peck | 8 quarts |  |
| 1 bushel | 4 pecks |  |
| 1 pound dry measure | 16 ounces | |

tsp = teaspoon  
t = tablespoon  
oz = ounce  
c = cup  
pt = pint  
qt = quart  
bu = bushel  
lb = pound

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| **Some Formulas** | |
| Area of Square | Side Squared |
| Area of Circle | 3.1415927 x Radius Square |
| Area of Sphere | 4 x 3.1415927 x Radius Squared |
| Area of Parallelogram | Base x Height |
| Circumference of Circle | 2 x 3.1415927 x Radius |
| Volume of Rectangular Box | Length x Width x Height |
| Volume of Cone | 1/3 x 3.1415927 x Radius Squared x Height |
| Volume of Cylinder | 3.1415927 x Radius Squared x Height |
| Volume of Sphere | 4 x 3.1415927 x Radius Cubed ÷ 3 |
| Volume of Cube | Side Cubed |

a = area  
c = circumference  
v = volume  
sq = square  
cu = cubic  
r = radius  
d = diameter  
l = length  
w = width  
h = height  
s = side  
Pi = 3.1415927 (approx)

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| **How to figure out the capacity  of a round (cylindrical) container** | | | |
| Learn ahead of cooking or baking... *...How much batter to put in a cake pan, or ...How much liquid a non-marked sauce pan will hold, for example.* The formula is intended for straight-sided pans, however you can also get a good approximation of capacity   **First take these measurements:**  *For the Radius:* Measure across the inside of the pan, and divide by two.      (Multiply this figure by itself to get the Radius Squared for the formula.) *For the Height:* Measure from the inside bottom up to the fill line.      (Measure up to the lip of the pan if you're filling it to the brim.)  **3-part formula:**  (1)   Pi  x  r²  x  h = volume (in cubic inches) (2)   volume  /  231 = percentage of gallon (3)   percentage of gallon  x  128 = capacity (in ounces)  Pi = 3.1415927 231 = Cubic Inches in a Gallon of Liquid 128 = Ounces in a gallon  r = Radius = one half the Diameter r² = Radius Squared = Radius x Radius h = Height x = times / = divided by  **Therefore, using your calculator:**  (1)    3.1415927 times *Radius Squared* times *Height* = *Volume* (2)   *Volume* divided by 231 = *Percentage of 1 Gallon* (3)   *Percentage of 1 Gallon* times 128 = *Capacity in Liquid Ounces* | | | |
| **Linear Measure Equivalents** | | | |
| 1 micron | 0.001 mm |  |  |
| 1 in | 2.54 cm |  |  |
| 1 hand | 4 in | 1/3 ft |  |
| 1 span | 9 in |  |  |
| 1 ft | 12 in | 30.48 cm | 0.3 m |
| 1 yd | 3 ft |  |  |
| 1 m | 3.28 ft | 39.37 in |  |
| 1 fathom | 6 ft |  |  |
| 1 rod, pole or perch | 16.5 ft | 5.5 yd |  |
| 1 furlong | 660 ft | 220 yd | 40 poles |
| 1 km | 0.62 mi |  |  |
| 1 mi | 5,280 ft | 1,760 yd | 8 furlongs |
| 1 mi | 320 rods | 1.61 km |  |
| 1 league | 3 mi |  |  |

in = inch  
ft = foot  
yd = yard  
mi = mile  
cm = centimeter  
m = meter  
km = kilometer

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| **Square Measure Equivalents** | | | | | | | | |
| 144 | square inches | | | | 1 square foot | | | |
| 9 | square feet | | | | 1 square yard | | | |
| 30.25 | square yards | | | | 1 square rod | | | |
| 160 | square rods | | | | 1 acre | | | |
| 640 | acres | | | | 1 square mile | | | |
| **Cubic Measure Equivalents** | | | | | | | | |
| 1728 | | cubic inches | | | 1 cubic foot | | | |
| 27 | | cubic feet | | | 1 cubic yard | | | |
| **Liquid (Fluid) Measure Equivalents** | | | | | | | | |
| 0.125 oz | | | 1 fl dram | 60 minims | |  |  |  |
| 1 oz | | | 8 fl drams |  | |  |  |  |
| 4 oz | | | 1 gill |  | |  |  |  |
| 8 oz | | | 1 c |  | |  |  |  |
| 16 oz | | | 2 c | 1 pt | |  |  |  |
| 32 oz | | | 4 c | 2 pt | | 1 qt |  |  |
| 33.8 oz | | | 4.23 c | 2.1134 pt | | 1.0567 qt | 0.264 gal | 1 l |
| 128 oz | | | 16 c | 8 pt | | 4 qt | 1 gal | 3.7853 l |
| 4032 oz | | | 1 bbl | 3.94 pt | | 7.875 qt | 31.5 gal |  |
| 8064 oz | | | 1 hhd | 7.875 pt | | 15.75 qt | 63 gal |  |

fl = fluid  
oz = ounce  
c = cup  
pt = pint  
qt = quart  
gal = gallon  
bbl = barrel  
hhd = hogshead  
l = liter

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| **Metric Equivalents, Liquid or Fluid Measure** | | | |
|  | **Or** | **Dry** | **Liquid** |
| 1 centiliter |  | 0.6102 cubic inches | 0.338 ounces |
| 1 deciliter | 10 centiliters | 6.102 cubic inches | .0845 gill |
| 1 liter | 10 deciliters | 0.908 quart | 1.0567 quarts |
| 1 decaliter | 10 liters | 9.08 quarts | 2.64 gallons |

cl = centiliter  
dl = deciliter  
l = liter  
dal = decaliter  
cu in = cubic inch  
oz = ounce  
qt = quart  
gal = gallon

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| **Weight Equivalents** | | | | | | |
| **Avoirdupois** | | | | | | |
| 16 drams | 437.5 grains | | | 1 ounce | | 28.35 grams |
| 16 ounces | 7000 grains | | | 1 pound | | 453.59 grams |
| 1 pound | 0.45 kilograms | | |  | |  |
| 1 kilogram | 2.2 pounds | | |  | |  |
| 100 pounds | 1 central | | | 1 hundredweight | |  |
| 2000 pounds | 1 short ton | | |  | |  |
| 2204.6 pounds | 1 metric ton | | | 1000 kilograms | |  |
| 2240 pounds | 1 long ton or gross ton | | |  | |  |
| **Also (in Great Britain)** | | | | | | |
| 14 pounds | 1 stone | | |  | |  |
| 2 stones | 1 quarter | | |  | |  |
| 4 quarters | 112 pounds | | | 1 hundredweight | |  |
| 20 hundredweight | 1 long ton | | |  | |  |
| **Troy (Precious Metals)** | | | | | | |
| 24 grains | 1 pennyweight | | |  | |  |
| 20 pennyweights | 480 grains | | | 1 ounce | |  |
| 12 ounces | 5760 grains | | | 1 pound | |  |
| **Apothecaries' Weight** | | | | | | |
| 20 grains | 1scruple | | |  | |  |
| 3 scruples | 1 dram | | |  | |  |
| 8 drams | 1 ounce | | |  | |  |
| 12 ounces | 5760 grains | | | 1 pound | |  |
| **Paper** | | | | | | |
| 24 sheets | | 1 quire | | |  | |
| 20 quires | | 1 short ream | | | 480 sheets | |
| 500 sheets | | 1 ream | | |  | |
| 10 reams | | 1 bale | | |  | |
| **Weight of Water** | | | | | | |
| 1 cubic inch | | | .0360 pound | | | |
| 1 cubic foot | | | 62.3 pounds | | | |
| 1 cubic foot | | | 7.48052 U.S. gallons | | | |
| 1 Imperial gallon | | | 10.0 pounds | | | |
| 1 U.S. gallon | | | 8.33 pounds | | | |

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| **Mesh Equivalents** | | | | | | | | |
| **U.S. MESH** | | | **INCHES** | | **MICRONS** | | **MILLIMETERS** | |
| 3 | | | 0.2650 | | 6730 | | 6.730 | |
| 4 | | | 0.1870 | | 4760 | | 4.760 | |
| 5 | | | 0.1570 | | 4000 | | 4.000 | |
| 6 | | | 0.1320 | | 3360 | | 3.360 | |
| 7 | | | 0.1110 | | 2830 | | 2.830 | |
| 8 | | | 0.0937 | | 2380 | | 2.380 | |
| 10 | | | 0.0787 | | 2000 | | 2.000 | |
| 12 | | | 0.0661 | | 1680 | | 1.680 | |
| 14 | | | 0.0555 | | 1410 | | 1.410 | |
| 16 | | | 0.0469 | | 1190 | | 1.190 | |
| 18 | | | 0.0394 | | 1000 | | 1.000 | |
| 20 | | | 0.0331 | | 841 | | 0.841 | |
| 25 | | | 0.0280 | | 707 | | 0.707 | |
| 30 | | | 0.0232 | | 595 | | 0.595 | |
| 35 | | | 0.0197 | | 500 | | 0.500 | |
| 40 | | | 0.0165 | | 400 | | 0.400 | |
| 45 | | | 0.0138 | | 354 | | 0.354 | |
| 50 | | | 0.0117 | | 297 | | 0.297 | |
| 60 | | | 0.0098 | | 250 | | 0.250 | |
| 70 | | | 0.0083 | | 210 | | 0.210 | |
| 80 | | | 0.0070 | | 177 | | 0.177 | |
| 100 | | | 0.0059 | | 149 | | 0.149 | |
| 120 | | | 0.0049 | | 125 | | 0.125 | |
| 140 | | | 0.0041 | | 105 | | 0.105 | |
| 170 | | | 0.0035 | | 88 | | 0.088 | |
| 200 | | | 0.0029 | | 74 | | 0.074 | |
| 230 | | | 0.0024 | | 63 | | 0.063 | |
| 270 | | | 0.0021 | | 53 | | 0.053 | |
| 325 | | | 0.0017 | | 44 | | 0.044 | |
| 400 | | | 0.0015 | | 37 | | 0.037 | |
| 625 | | | 0.0008 | | 20 | | 0.020 | |
| 1250 | | | 0.0004 | | 10 | | 0.010 | |
| 2500 | | | 0.0002 | | 5 | | 0.005 | |
| |  |  |  |  | | --- | --- | --- | --- | | **Metric Units - Linear Measure** | | | | | 1 centimeter | 10 millimeters |  |  | | 1 decimeter | 10 centimeters | 100 millimeters |  | | 1 meter | 10 decimeters | 100 centimeters | 1000 millimeters | | 1 decameter | 10 meters | 100 decimeters | 1000 centimeters | | 1 hectometer | 10 decameters | 100 meters | 1000 decimeters | | 1 kilometer | 10 hectometers | 100 decameters | 1000 meters |   mm = millimeter cm = centimeter dm = decimeter m = meter km = kilometer     |  |  |  |  | | --- | --- | --- | --- | | **Square Measure** | | | | | 1 sq. cm. | 100 sq. mm. |  |  | | 1 sq. dm. | 100 sq. cm. | 10,000 sq. mm. |  | | 1 sq. m. | 100 sq. dm. | 10,000 sq. cm. | 1,000,000 sq. mm. |      |  |  | | --- | --- | | **Cubic Measure** | | | 1 cu. cm. | 1,000 cu. mm. | | 1 cu. dm. | 1,000 cu. cm. | | 1 cu. m. | 1,000 cu. dm. | | **Liquid Measure** | | | 1 centiliter | 10 milliliters | | 1 deciliter | 10 centiliters | | 1 liter | 10 deciliters | | 1 decaliter | 10 liters | | 1 hectoliter | 10 decaliters | | 1 kiloliter | 10 hectoliters |      |  |  |  |  | | --- | --- | --- | --- | | **Weights** | | | | | 1 centigram | 10 milligrams |  |  | | 1 decigram | 10 centigrams | 100 milligrams |  | | 1 gram | 10 decigrams | 100 centigrams | 1000 milligrams | | 1 decagram | 10 grams |  |  | | 1 hectogram | 10 decagrams | 100 grams |  | | 1 kilogram | 10 hectograms | 100 decagrams | 1000 grams | | 1 quintal | 100 kilograms |  |  | | 1 ton | 10 quintals | 1000 kilograms |  |   mg = milligram cg = centigram dg = decigram g = gram kg = kilogram | | | | | | | | | | |
| **Acreage** | | | | | | | | | | |
| 1 acre | 43,560 square feet | |  | |  | |
| 2 acres | 87,30 square feet | |  | |  | |
| 5 acres | 217,800 square feet | |  | |  | |
| 10 acres | 435,600 square feet | | 330 feet x 1320 feet (land lot size) | |  | |
| 25 acres | 1,089,000 square feet | |  | |  | |
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