

Metric Conversions

LENGTH

millimeter centimeter decimeter **meter** *dekameter hectometer kilometer*
 $1000\text{mm} = 100\text{cm} = 10\text{dm} = \boxed{1\text{ m}} = 0.1\text{dam} = 0.01\text{hm} = \mathbf{0.001\text{km}}$

WEIGHT

milligram centigram decigram **gram** *dekagram hectogram kilogram*
 $1000\text{mg} = 100\text{cg} = 10\text{dg} = \boxed{0.1\text{ g}} = 0.1\text{dag} = 0.01\text{hg} = \mathbf{0.001\text{kg}}$

CAPACITY

milliliter centiliter deciliter **liter** *dekaliter hectoliter kiloliter*
 $1000\text{mL} = 100\text{cL} = 10\text{dL} = \boxed{1\text{ L}} = 0.1\text{daL} = 0.01\text{hL} = 0.001\text{kL}$

AREA

Square mm Square cm **Square meter** *Square km*
 $1,000,000\text{mm}^2 = 10,000\text{cm}^2 = \boxed{1\text{ m}^2} = 0.000001\text{km}^2$

VOLUME

Cubic mm Cubic cm **Cubic meter** *Cubic km*
 $1,000,000,000\text{mm}^3 = 1,000,000\text{cm}^3 = \boxed{1\text{ m}^3} = 0.000000001\text{km}^3$

****1 mL = 1 cm³ = 1 cc****

English Weights and Measures

<u>Length</u>	<u>Volume</u>	<u>Weight</u>
12 inches (in.) = 1 foot (ft)	16 fluid ounces (fl oz) = 1 pint (pt)	16 ounces (oz) = 1 pound (lb)
3 feet = 1 yard (yd)	2 pints = 1 quart (qt)	2,000 pounds = 1 ton
5,280 feet = 1 mile (mi)	4 quarts = 1 gallon (gal)	

Metric and English Conversions

<u>Length</u>	<u>Weight</u>	<u>Capacity</u>
<i>English Metric</i>	<i>English Metric</i>	<i>English Metric</i>
1 inch (in.) = 2.54 cm	1 ounce (oz) = 28.3 g	1 gallon (gal) = 3.79 L
1 foot (ft) = 30.5 cm	1 pound (lb) = 454 g	1 quart (qt) = 0.946 L
1 yard (yd) = 91.4 cm	1 lb = 0.454 kg	0.264 gal = 1 L
1 mile (mi) = 1610 m	0.0353 oz = 0.4653 g	1.06 qt = 1 L
1 mi = 1.61 km	2.2 lb = 1 kg	1 metric ton = 1,000 kg
0.0394 in. = 1 mm		
0.394 in. = 1 cm		
39.4 in. = 1 m		
3.28 ft = 1 m		
1.09 yd = 1 m		

<u>Area</u>		
<i>English</i>	<i>English Metric</i>	<i>Metric English</i>
1 ft ² = 144 in ²	1 in ² = 6.45 cm ²	1 m ² = 10.76 ft ²
1 yd ² = 9ft ²	1 ft ² = 929 cm ²	1 m ² = 1550 in ²
1 acre = 43,560 ft ²	1 yd ² = 8,361 cm ²	1 cm ² = 0.155 in ²
1 mi ² = 640 acres	1 acre = 4,047 m ²	1 km ² = 247 acres
	1 mi ² = 2.59 km ²	1 km ² = 0.386 mi ²
<i>Metric</i>		
1 m ² = 10,000 cm ²		
1 cm ² = 100 mm ²		
1 km ² = 1,000,000 m ²		

<u>Volume</u>		
<i>English</i>	<i>English Metric</i>	<i>Metric English</i>
1 ft ³ = 1,728 in ³	1 in ³ = 16.39 cm ³	1 cm ³ = 0.06102 in ³
1 yd ³ = 27 ft ³	1 ft ³ = 28,317 cm ³	1 m ³ = 35.3 ft ³
	1 yd ³ = 0.7646 m ³	1 m ³ = 1.31 yd ³
<i>Metric</i>		
1 cm ³ = 1 mL		