Useful Conversion Factors for Calibrations:

Standard Measures			Metric Conversions		
LENGTH					
1 ft	=	12 in	1 in	=	25.4 mm
				=	2.54 cm
1 yd	=	3 ft	1 ft	=	304.8 mm
				=	30.48 cm
1 mi	=	5,280 ft	1 yd	=	914.4 mm
				=	91.44 cm
				=	0.914 m
			1 mi	=	1,609 m
				=	1.61 km
			1 mm	=	0.03937 in
			1 cm	=	0.394 in
				=	0.0328 ft
			1 m	=	39.37 in
				=	3.281 ft
			1 km	=	3,281 ft
				=	0.6214 mi
AREA					
1 sq in	=	0.007 sq ft	1 sq in	=	645 sq cm
1 sq ft	=	144 sq in	1 sq ft	=	929 sq cm
	=	0.000023 sq ac			
1 sq yd	=	1,296 sq in	1 sq yd	=	8,361 sq cm
	=	9 sq ft		=	0.8361 sq m
1 ac	=	43,560 sq ft	1 ac	=	4,050 sq m
	=	4,840 sq yd		=	0.405 ha
			1 sq cm	=	0.155 sq in
				=	1 sq m
				=	1,550 sq in
				=	10.76 sq ft
			1 ha	=	107,600 sq ft
				=	2.47 ac
WEIGHT					
1 oz	=	0.0625 lb			
1 lb	=	16 oz	1 oz	=	28.35 g
			1 lb	=	454 g
				=	0.4536 kg
1 ton	=	2000 lb	1 ton	=	907 kg
1 gal water	=	8.34 lb	1 gal water	=	3.786 kg
			1 g	=	0.035 oz
			1 kg	=	35.27 oz
				=	2.205 lb
VOLUME					
1 tsp	=	0.17 fl oz	1 fl oz	=	29.5 ml
				=	0.02951 L
1 tbs	=	3 tsp	1 pint	=	437 ml
				=	0.437 L
1 fl oz	=	2 tbs	1 qt	=	945 ml
	=	6 tsp		=	0.945 L
1 cup	=	8 fl oz	1 gal	=	3785 ml
	=	16 tbs		=	3.785 L
1 pt	=	2 cups	1 L	=	33.8 fl oz
	=	16 fl oz		=	2.112 pt
1 qt	=	2 pt		=	10.57 qt
	=	32 fl oz		=	231 cu in
				=	0.264 gal
			1 ml	=	0.033 fl oz

ABBREVIATIONS

ac = acre
fl oz = fluid ounce
ft = foot/feet
gal = gallon
sq = square
in = inch
lb = pound
mi = mile
oz = ounce

pt = pint
qt = quart
tbs = tablespoon
tsp = teaspoon
yd = yard
cm = centimeter
g = gram
ha = hectare
(1 h = 10,000 sqm)

kg = kilogram
km = kilometer
L = liter
m = meter
ml = milliliter
mm = millimeter

Unit Conversion and Calibration Formulas

© Richard Beard. Used with permission.

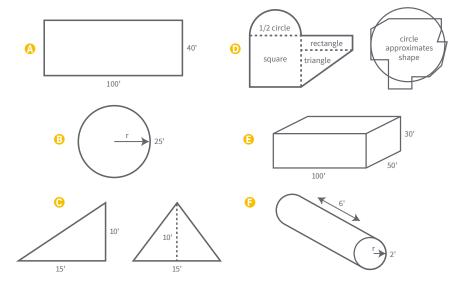| Unit Conversion	Example
One acre = 43,560 square feet	1/2 acre = 21,780 square feet
One mile = 5,280 feet	1/4 mile = 1,320 feet
One gallon = 128 fluid ounces	1/2 gallon = 64 fluid ounces
One quart = 2 pints = 4 cups = 32 fluid ounces	2 quarts = 64 fluid ounces
One pint = 2 cups = 16 fluid ounces	1/2 pint = 1 cup = 8 fluid ounces
One tablespoon = 3 teaspoons = 1/2 fluid ounces	2 tablespoons = 1 fluid ounce
One pound = 16 ounces	1/4 pound = 4 ounces
One gallon = 231 cubic inches	2 gallons = 462 cubic inches

Area and Volume Calculations

Ⓐ Area of Rectangular or Square Shape: (Length) x (Width) = Area
100 feet x 40 feet = 4,000 square feet

Ⓑ Area of Circle: (Radius) x (Radius) x (3.14) = Area
25 feet x 25 feet x 3.14 = 1,962.5 square feet

Ⓒ Area of Triangular Shape: (1/2) x (Base Width) x (Height) = Area
1/2 x 15 feet x 10 feet = 75 square feet

Ⓓ Area of Irregular Shape: Irregularly shaped sites can often be reduced to a combination of rectangles, circles and triangles. Calculate the area of each shape and add the values of the individual areas to obtain the total area.

Ⓓ Another method for calculating the area of an irregular shape is to convert the site into a circle. From a center point, measure the distance to the edge of the area in 10 or more increments. Average these measurements to find the radius, then calculate the area using the formula for a circle.

Ⓔ Volume of Cube or Box Shape: The volume of a cube or box is found by multiplying the length, times the width, times the height.
100 feet x 50 feet x 30 feet = 150,000 square feet

Ⓕ Volume of Cylindrical Shape: The volume of a cylinder is found by calculating the area of the round end (see formula for circle) and multiplying this area times the length or height.
(Radius) x (Radius) x (3.14) = Area of Circle
(Area of Circle) x (Length) = Volume of Cylinder
(2 feet) x (2 feet) x (3.14) x (6 feet) = 75.36 cubic feet