

Dimensional Analysis in Nursing

Table of Measurement Equivalencies

Length	Weight and mass	Volume
1 foot = 12 inches	1 pound = 16 ounces	3 teaspoons = 1 tablespoon
3 feet = 1 yard		16 fluid ounces = 1 pint
5280 feet = 1 mile	2.2 pounds = 1 kilogram (kg)	2 pints = 1 quart
	1 ounce = 28 grams (g)	4 quarts = 1 gallon
1 inch = 2.54 centimeters (cm)	1 grain = 65 milligrams* (mg)	
1 inch = 25.4 millimeters (mm)		1 teaspoon = 5 milliliters (mL)
1 foot = 30.5 centimeters (cm)		1 tablespoon = 15 milliliters (mL)
1 yard = 0.914 meters (m)		1 fluid ounce = 30 milliliters (mL)
1 mile = 1.61 kilometers (km)		1 gallon = 3.79 liters (L)

*You will also encounter the grains and milligrams equivalency stated as **1 grain = 60 mg**.

Many nursing textbooks and instructional materials publish and use this equivalency.

This textbook uses the equivalency shown in the table above.

Use whichever one is advised by your nursing instructors.

Area	Temperature
144 square inches = 1 square foot	<p>If you know Fahrenheit and want to compute Celsius use:</p> $C = \frac{5}{9}(F - 32)$
9 square feet = 1 square yard	<p>If you know Celsius and want to compute Fahrenheit use:</p> $F = \frac{9}{5}C + 32$
43,560 square feet = 1 acre	

Metric Prefix Chart

kilo hecto deka **base** deci centi milli | | micro | | nano | | pico

Miscellaneous Equivalencies:



1 Liter (L) of water = 1 kilogram (kg)