

Are you surprised that math is used in the kitchen? Chefs need to measure ingredients to make sure their recipes come out tasting right and are the same each time. There are different units of measurements for liquid and dry ingredients. There are also different measuring systems depending on where you are in the world – **U.S.** (also called “**standard**”) and **metric**. Use the table below as a reference to help you in your kitchen measurements.

Weight: the heaviness, or downward force on an object caused by gravity

Weight Measurement Abbreviations
g = gram
lb = pound
oz = ounce (weight)

Volume: the amount of 3-dimensional space something occupies, or the amount an object can hold

Volume Measurement Abbreviations
mL = milliliter
L = liter
fl oz = fluid ounce
gal = gallon
tsp = teaspoon
Tbsp = tablespoon
qt = quart
pt = pint



Cooking Measurements

U.S.-to-Metric System

Cooking Equivalents
 1 tbsp = 3 tsp
 1/16 cup = 1 Tbsp
 1/8 cup = 2 Tbsp
 1/6 cup = 2 Tbsp + 2 tsp
 1/4 cup = 4 Tbsp
 1/3 cup = 5 Tbsp + 1 tsp
 3/8 cup = 6 Tbsp
 1/2 cup = 8 Tbsp
 2/3 cup = 10 Tbsp + 2 tsp
 3/4 cup = 12 Tbsp
 1 cup = 16 Tbsp
 1 cup = 48 tsp
 1 cup = 8 oz
 2 cups = 1 pt
 2 pt = 1 qt
 4 cups = 1 qt
 4 qt = 1 gal
 16 oz = 1 lb

U.S.-to-Metric System

Converting Fluids
 1/5 tsp = 1 mL
 1 tsp = 5 mL
 1 Tbsp = 15 mL
 1 fl oz = 30 mL
 1/5 cup = 50 mL
 1 cup = 240 mL
 2 cups (1 pt) = 470 mL
 4 cups (1 qt) = .95 L
 4 qt (1 gal) = 3.8 L

Metric System to U.S.

Converting Fluids
 1 mL = 1/5 tsp
 5 mL = 1 tsp
 15 mL = 1 Tbsp
 30 mL = 1 fl oz
 47 mL = 1/5 cup
 100 mL = 3.4 fl oz
 237 mL = 1 cup
 474 mL = 2 cups
 .95 L = 4 cups
 3.8 L = 4 qt (1 gal)
 1 L = 34 fl oz
 1 L = 4.2 cups
 1 L = 2.1 pt
 1 L = 1.06 qt
 1 L = .26 gal

Converting Weight
 1 g = .035 oz
 100 g = 3.5 oz
 500 g = 1.10 lb
 1 kg = 2.205 lb
 1 kg = 35 oz

U.S.-to-Metric System

Converting Weight
 1 oz = 28 g
 1 lb = 454 g



Name: _____ Date: _____

Most moderately active 10- to 11-year olds need:

Fruit: 1½ cups per day Vegetables: 2½ cups per day*

*Remember!

The amount of fruits and vegetables you need each day is determined by your age, gender, height, weight, and how active you are.

What counts as 1 cup of fruits or vegetables?



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- small bowl (8-oz) of veggies
- 2 cups of raw leafy greens
- 8-oz glass of 100% fruit juice
- small bowl (8-oz) of fruit
- ½ cup of dried fruit



Use measuring tools to test your kitchen math skills:

- 1) Measure 1 cup of dry beans to see what 1 cup looks like. Put a cup of beans on a plate. Then, put 1 cup of beans in a bowl. Describe the size of a cup by comparing it to a familiar object: _____
- 2) Measure 1 cup of water and pour it into a drinking glass.
Is there a difference between what a liquid “cup” and a dry “cup” look like? _____
- 3) Measure out following, then convert the daily recommended amounts to milliliters: _____
1½ cups fruit/day = _____ mL
2½ cups vegetables/day = _____ mL

Convert the following measurements:

- 4) 15½-oz can of beans = _____ cups
- 7) 2½ cups of chopped tomatoes = _____ oz
- 5) 8-oz of pasta = _____ cups
- 8) 32-oz of green beans = _____ lb
- 6) 1½ cups of fruit = _____ Tbsp

Find three measurements on a food or beverage package to convert to another unit.

- 9) _____ = _____
- 10) _____ = _____
- 11) _____ = _____

