

Name: _____

Block: _____

Date: _____

AWM10

Ch. 3.4 - Volume

Notes

The SI unit for measuring volume is the litre but the imperial unit for volume is the pint. However, volume can also be measured in millilitres, cubic metres, cubic inches, cubic feet or many others.

Especially in cooking, or other activities that use liquid measurements, it is important to be able to convert between different units of volume.

VOLUME: _____

- volume of a rectangular prism (box) = _____ = _____
- units are "cubed" ex. in^3

CAPACITY: _____

ie. the amount of volume inside an object

Some Conversions to note:

4 quarts = 1 US gallon

1 cup = 250 mL

2 pints = 1 quart

2 cups = 1 pint

1 teaspoon (tsp) = 5 millilitres (mL)

1 tablespoon (tbsp) = 15 mL

1 cup = 250 mL

1 litre = 0.26 US gallons

Finding the volume of a rectangular prism (box):

Ex. 1) What is the volume of a packing box that measures 10cm by 5cm by 3cm?

Ex. 2) Alfred has a bulk container that holds 2000 cubic inches of dog biscuits. He plans to sell the biscuits in small boxes that measure 5" by 8" by 6". How many boxes will he need to sell all the dog biscuits?

Converting between Units of Volume:

Ex. 3) You are travelling through the US and your car's gas tank has a capacity of 55 litres.

a) How much is this in American gallons?

b) How much is this in British gallons?

Ex. 4) You are opening a French bakery and want to make authentic French recipes. All the recipes are given in metric units, but you have imperial measuring devices. The crème brûlée recipe requires 500 mL of cream and 1.25 mL of vanilla.

a) How much cream will you need, in cups?

b) How much vanilla will you need, in teaspoons?

c) How much cream will you need, in fluid ounces? (1 fl oz = 30 mL)