winma+h
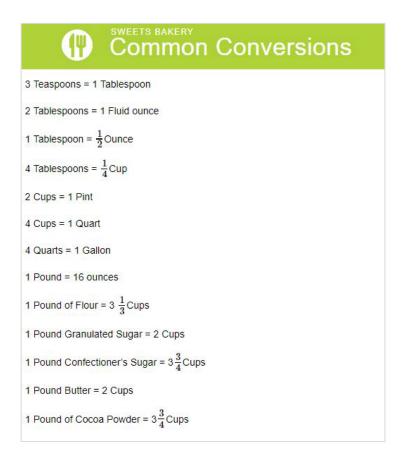*Career Infused Capstone Projects*

Name: [   ]

Sweets Bakery

Ingredients

To order the ingredients you need to make the cupcakes, you must convert the quantities into the same measurement units used to package the ingredients. For example, a recipe might require 50 cups of flour, but flour is sold by the pound. For your final report, you will make the conversions required to order the ingredients. You will also use your knowledge of volume to order boxes for carrying the cupcakes to the big event.

Use the totals from the Table of Ingredients to order the ingredients. For each ingredient, convert the total into the same measurement unit used to package the ingredient. Then, figure the number of packages you will need.

SWEETS BAKERY
Common Conversions

3 Teaspoons = 1 Tablespoon

2 Tablespoons = 1 Fluid ounce

1 Tablespoon = $\frac{1}{2}$ Ounce

4 Tablespoons = $\frac{1}{4}$ Cup

2 Cups = 1 Pint

4 Cups = 1 Quart

4 Quarts = 1 Gallon

1 Pound = 16 ounces

1 Pound of Flour = $3\frac{1}{3}$ Cups

1 Pound Granulated Sugar = 2 Cups

1 Pound Confectioner's Sugar = $3\frac{3}{4}$ Cups

1 Pound Butter = 2 Cups

1 Pound of Cocoa Powder = $3\frac{3}{4}$ Cups

Question 1

Baking Powder

    a. How many ounces of baking powder will you need? Show your work or explain how you found your answer.

    b. How many 8-ounce packages of baking powder should you order?

Question 2

Baking Soda

    a. How many ounces of baking soda will you need? Show your work or explain how you found your answer.

    b. How many 8-ounce packages of baking soda should you order?

Question 3

Butter

    a. How many pounds of butter will you need? Show your work or explain how you found your answer.

    b. How many 1-pound packages of butter should you order?

Question 4

Unsalted Butter

    a. How many pounds of unsalted butter will you need? Show your work or explain how you found your answer.

    b. How many 1-pound packages of unsalted butter should you order?

Question 5

Buttermilk

    a. How many gallons of unsalted buttermilk will you need? Show your work or explain how you found your answer.

    b. How many $\frac{1}{2}$ gallon bottles of buttermilk should you order?

Question 6

Cocoa Powder

    a. How many pounds of cocoa powder will you need?

    b. How many 1-pound packages of cocoa powder should you order?

Question 7

Confectioner's Sugar

    a. How many pounds of confectioner's sugar will you need? Show your work or explain how you found your answer.

    b. How many 1-pound packages of confectioner's sugar should you order?

Question 8

Eggs

Egg are packaged by the dozen. How many packages of eggs should you order? Show your work or explain how you found your answer.

Question 9

Flour

    a. How many pounds of flour will you need? Show your work or explain how you found your answer.

b. How many 1-pound packages of flour should you order?

Question 10

Granulated Sugar

    a. How many pounds of granulated sugar will you need? How your work or explain how you found your answer.

b. How many 1-pound packages granulated sugar should you order?

Question 11

Heavy Cream

a. How many pints of heavy cream will you need? How your work or explain how you found your answer.

b. How many -pint bottles of heavy cream should you order?

Question 12

Lemon Juice

a. How many fluid ounces of lemon juice will you need? Show your work or explain how you found your answer.

b. Lemon juice is packaged in bottles that hold 8 fluid ounces.
How many bottles of lemon juice should you order?

Question 13

Lemon Zest

One lemon yields 1 tablespoon of zest. How many lemons should you order?

Question 14

Milk

Milk is packaged in $\frac{1}{2}$ gallon and 1-gallon bottles. How many bottles of milk will you need? Show your work or explain how you found your answer.

Question 15

Salt

a. How many ounces of salt will you need? Show your work or explain how you found your answer.

b. How many 8-ounce packages of salt should you order?

Question 16

Vegetable Oil

How many gallons of vegetable oil will you need? Show your work or explain how you found your answer.

Question 17

Vanilla Extract

How many cups of vanilla extract will you need? Show your work or explain how you found your answer.

Question 18

Vinegar

How many pints of vinegar will you need? Show your work or explain how you found your answer.

Packaging

Each cupcake will be packaged in a small box that is 3 inches long, 3 inches wide, and 3 inches high. The cardboard used to make the cupcake boxes is very thin and takes no space. You need to order larger boxes in which to pack the small cupcake boxes. The larger boxes come in two sizes.

Question 19

Use the packaging information above to answer the following questions.

Box 1: $2\frac{1}{2}$ feet long x $1\frac{1}{2}$ feet wide x 6 inches high

Box 2: $1\frac{1}{4}$ feet long x $1\frac{1}{2}$ feet wide x 6 inches high

a. What is the volume, in cubic inches, of Box 1?

b. What is the volume, in cubic inches, of one cupcake box?

c. How many cupcake boxes will fit into Box 1?

d. How many cupcake boxes will fit into Box 2?

e. You want to use a few boxes as possible. How many boxes of each size should you order to pack 1,500 cupcake boxes?