

# Grade 5 - Math



**2<sup>nd</sup> Marking Period**

**Bake Sale**

What does



stand for?

|   |   |
|---|---|
| <b>Goal</b>                                     | <ul style="list-style-type: none"><li>• Your task is ...</li><li>• The goal is to...</li><li>• The problem or challenge is to...</li><li>• The obstacle to overcome is...</li></ul> |
| <b>Role</b>                                     | <ul style="list-style-type: none"><li>• You are...</li><li>• You have been asked to...</li><li>• Your job is...</li></ul>   |
| <b>Audience</b>                                 | <ul style="list-style-type: none"><li>• Your client is...</li><li>• Your target audience is...</li><li>• You need to convince...</li></ul>  |
| <b>Situation</b>                                | <ul style="list-style-type: none"><li>• The context you find yourself in is...</li><li>• The challenge involves dealing with...</li></ul>   |
| <b>Product,<br/>Performance and<br/>Purpose</b> | <ul style="list-style-type: none"><li>• You will create...in order to...</li><li>• You need to develop ... so that...</li></ul>   |

# G R A S P

## Goal

Perry Hill School needs new recess equipment.  
To help raise money, the student council has decided to hold a bake sale.

## Role

You have decided to bring in cookies to sell!  
You will determine the amount of ingredients needed to make multiple batches, the number of packages of each ingredient to buy and calculate how much you have earned for the bake sale.

## Audience

The customers buying the cookies at the bake sale (and your parent who is purchasing the ingredients!)

## Situation

The challenge is to buy just the right amount of ingredients needed to make a certain batch of cookies considering if the cookies sell quickly and you need to make more batches.

## Product, Performance and Purpose

You will create: 1. a list of needed ingredients, 2. a shopping list for those ingredients, 3. adjust the ingredient list to make additional batches, and 4. calculate how much money you helped to raise for the bake sale.

How many of you have ever followed a recipe to bake cookies or something similar?

If you have, then you may know that many recipes do not make the exact number of items that you need.

LET'S  
DISCUSS

For example, this chocolate chip cookie recipe makes **24 cookies** (a batch), but what if we wanted to make **48 cookies**?  
**What would we need to do?**

We would **double** each ingredient of the recipe...

$2 \frac{1}{4} \times 2 = 4 \frac{1}{2}$  cups of flour

$1 \text{ tsp} \times 2 = 2 \text{ tsp}$  of baking soda

$\frac{1}{2} \times 2 = 1 \text{ tsp}$  of salt, etc.

What if we wanted to make **36 cookies**?  
**What would we need to do?**

We would need to **multiply each ingredient by  $1 \frac{1}{2}$**   
**(24 is one batch + 12 more = 36 cookies)**

$2 \frac{1}{4} \times 1 \frac{1}{2} = 3 \frac{3}{8}$  cups of flour

$1 \text{ tsp} \times 1 \frac{1}{2} = 1 \frac{1}{2} \text{ tsp}$  of baking soda

$\frac{1}{2} \times 1 \frac{1}{2} = \frac{3}{4} \text{ tsp}$  of salt, etc.



## AMAZING CHOCOLATE CHIP COOKIES

*aprilcolleen.com*

### TO MAKE

#### INGREDIENTS

- 2  $\frac{1}{4}$  C All Purpose Flour
- 1 tsp Baking Soda
- $\frac{1}{2}$  tsp Salt
- 1 cup Butter, softened
- $\frac{3}{4}$  Granulated Sugar
- $\frac{3}{4}$  C Brown Sugar
- 1 egg (or  $\frac{1}{4}$  cup of unsweetened apple sauce)
- 1 tsp Vanilla Extract
- 2 cups semi-sweet chocolate chips

**\*\*TIP:** if you make it with applesauce you can use it on top of ice cream or various other treats because it is eggless\*\*

01

Preheat oven to 375 degrees F. Mix flour, baking soda and salt in medium bowl. Set aside.

02

Beat butter and sugars in large bowl with electric mixer or stand mixer on medium speed 5 until lismooth. Beat in egg or applesauce and vanilla extract.

03

Add flour mixture on low until blended. Fold in chocolate chips. Scoop onto baking sheet 2" apart..

04

Bake for for 7  $\frac{1}{2}$  minutes or until you see the outside edge start to brown. Remove from oven and let cool slightly. ENJOY!!

# Grade 5 - Math



DAY 1

Parts 1 & 2

Part 1 – What do you need?  
Each batch makes **12 cookies**.

You need to make **96 cookies**.

How much of each ingredient will you need?



- 1. Determine how many batches are needed to make 96 cookies.
- 2. SHOW YOUR WORK how to calculate increasing the amount of each ingredient.
- 3. Write in the amount of each ingredient you will need to make 96 cookies.

Next, it's time to go shopping for the ingredients!

| Ingredients       | Ingredients for 1 batch of Chocolate Chip Cookies | Work | Ingredients for ____ batches of Chocolate Chip Cookies |
|-------------------|---|------|--|
| Butter            | 8 tablespoons                                     |      |  |
| White Sugar       | ½ cup   |      |  |
| Light Brown Sugar | ¼ cup   |      |  |
| Vanilla           | 1 teaspoon  |      |  |
| Egg               | 1 egg   |      |  |
| Flour             | 1 ½ cups  |      |  |
| Baking Soda       | ½ teaspoon  |      |  |
| Salt              | ¼ teaspoon  |      |  |
| Chocolate Chips   | ¾ cup   |      |  |

## Part 2 – How many packages of each ingredient do you need to buy?

Now that you know how much you need, your parent is going to the grocery store. They would like to know what they need to buy.

- 1. The amount you determined in Part 1.
- 2. Determine the number of packages you need for each ingredient based on the amount provided in each package.
- 3. In some cases, the package size may be more than you need for that ingredient. That’s ok, because you may be able to use the extra amount later on.

Can you think of any ingredients in your kitchen that you did not use the whole package last time you used it?

|                   | Amount in a package                                   | Amount needed | Number of packages needed | Amount Extra |
|-------------------|---|---------------|---------------------------|--------------|
| Butter            | 4 sticks in a package<br>Each stick is 8 tablespoons. |               |                           |              |
| White Sugar       | 1 pound package about 2 ½ cup                         |               |                           |              |
| Light Brown Sugar | 1 pound package about 2 cups                          |               |                           |              |
| Vanilla           | 2-ounce package is 12 teaspoons                       |               |                           |              |
| Egg               | 1 dozen eggs in a package                             |               |                           |              |
| Flour             | 1 pound package is about 18 cups                      |               |                           |              |
| Baking Soda       | 8-ounce package has about 47 teaspoons                |               |                           |              |
| Salt              | 26 ounces package of salt has about 491 teaspoons     |               |                           |              |
| Chocolate Chips   | 12-ounce bag has 2 cups                               |               |                           |              |



# How this GRASP will be graded:

## Performance Assessment Rubric

| Criteria                          | Not Yet Proficient   | Partially Proficient   | Mostly Proficient   | Proficient   | Highly Proficient  |
|-----------------------------------|--|--|---|--|--|
|                                   | Score 6  | Score 7  | Score 8   | Score 9  | Score 10   |
| <b>Understanding Fractions</b>    | Minimal understanding; major errors in understanding fractions or interpreting recipes.    | Partial understanding; some correct understanding but with errors or misconceptions.                                 | Mostly correct understanding of fractions; minor errors in calculation or reasoning.        | Correctly understands all fractions for multiple batches; demonstrates clear understanding of fraction operations. | Accurately understands fractions; demonstrates exceptional insight, such as using efficient methods or explaining relationships.   |
| <b>Problem-Solving Strategy</b>   | Strategy is unclear or inappropriate; steps are missing or disorganized.                   | Strategy is somewhat clear but lacks organization; some steps missing or reasoning inconsistent.                     | Strategy is mostly clear and organized; some reasoning needs improvement.                   | Strategy is logical, clear, and well-organized; all steps are appropriately shown.                                 | Strategy is efficient or demonstrates creativity; uses advanced methods or verifies solutions in unique ways.                      |
| <b>Computation Accuracy</b>       | Major errors in computations, leading to incorrect solutions.                              | Minor computation errors that do not impact the overall understanding.   | Mostly accurate computations with very few minor errors.                                    | Accurate computations across all tasks; uses appropriate operations.   | Flawless <u>computations</u> ; checks work thoroughly for accuracy.  |
| <b>Application to Context</b>     | Solutions do not fit the given context (e.g., incorrect conversions, unrealistic results). | Solutions partially fit the context; some realistic interpretations but with errors in size or packaging quantities. | Solutions mostly fit the context, with minor missteps in interpreting constraints.          | All solutions are contextually accurate and consider the quantities given (e.g., packages, batch sizes).           | Solutions demonstrate advanced reasoning, such as proposing alternatives or solving for additional constraints.                    |
| <b>Mathematical Communication</b> | Explanation is unclear, incomplete, or illogical; missing labels and units.                | Explanation is somewhat clear but lacks precision; units or labels are inconsistent.                                 | Explanation is mostly clear, with appropriate units and labels; minor gaps in logical flow. | Explanation is clear and logical, with all units and labels correctly applied; uses precise mathematical terms.    | Explanation is exceptionally clear, using formal mathematical terms to enhance understanding; includes justification of solutions. |

**Total Score: \_\_\_\_\_/50**



# Grade 5 - Math



DAY 2

Parts 3 & 4

Part 3 – Cookie Emergency! We’re all out.

The bake sale has been a huge success!  
Your cookies sell out on the first day of the bake sale.

Do you have enough of each ingredient to make 4 more batches?

If not, what ingredients do you need?  
*Remember, you had some extra ingredients in Part 2.*

In order to make 4 more batches I have enough of some ingredients but have to purchase more of others.  
Make your shopping list

| Shopping List |                 |
|---------------|-----------------|
| ITEM’S NAME   | Quantity Needed |
|               |                 |
|               |                 |
|               |                 |
|               |                 |
|               |                 |
|               |                 |
|               |                 |



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| Vanilla           | 1 teaspoon  |      |         |
| Egg               | 1 egg   |      |         |
| Flour             | 1 ½ cups  |      |         |
| Baking Soda       | ½ teaspoon  |      |         |
| Salt              | ¼ teaspoon  |      |         |
| Chocolate Chips   | ¾ cup   |      |         |

Part 4 – Who sold more?

After the bake sale ended, you and John want to compare who sold more of their bake goods.

| You   | John  |
|---|---|
| <p>On <b>Monday</b>, you sold <math>\frac{1}{3}</math> of your <b>96 chocolate chip cookies</b>.</p> <p>↓</p> <p>On <b>Tuesday</b>, you sold <math>\frac{1}{4}</math> of the <b>remaining</b> chocolate chip cookies.</p> <p>↓</p> <p>On <b>Wednesday</b>, you sold <math>\frac{7}{8}</math> of the <b>remaining</b> chocolate chip cookies.</p> <p>↓</p> <p>How many of the 96 cookies did you sell?</p> | <p>On <b>Monday</b>, John sold <math>\frac{1}{2}</math> of his <b>84 sugar cookies</b>.</p> <p>↓</p> <p>On <b>Tuesday</b>, John sold <math>\frac{1}{3}</math> of the <b>remaining</b> sugar cookies.</p> <p>↓</p> <p>On <b>Wednesday</b>, John sold <math>\frac{6}{7}</math> of the <b>remaining</b> sugar cookies.</p> <p>↓</p> <p>How many of the 84 cookies did John sell?</p> |



Who sold more cookies?

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