

The Cookie Project

“You bring the cookies, I’ll bring the milk!”

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Goal: To determine the expense (the cost) of making cookies and decide on an appropriate selling price in an effort to make a profit for your business.

Basic Materials: (but not limited to)

- Cookie recipe & ingredients
- TI-83/graphing calculator
- Presentation folder

Math Part: Finances

- Cost equation:
 - Calculate the cost of the ingredients in one batch of cookies
 - See guidelines from textbook below
- Profit equation:
 - Research a reasonable price for selling individual cookies
 - Consider quality versus quantity
- Analyzing data:
 - Create a table & graph to model cost and profit
 - Illustrate the point at which you would make a profit
 - Create a hand-out that illustrates this data

Written Part: “Mixing the Ingredients”

- Write a report (at least 3 paragraphs) about your “capitalistic cookie adventure”
- Make sure you address the following questions in your report:
 - What decisions did you make concerning ingredients, labor, costs and pricing?
 - How would you market this product outside the classroom?
 - How and why do manufacturer’s prices differ from your pricing?
 - Consult friends, family and foes regarding price; how much would they be willing to spend/pay and why?

In summary:

- 3 big parts: math, essay, cookies.
- See calendar for specific deadlines & due dates.
- Do not mix chocolate and mint in your cookie recipe; this will result in a major deduction of points.

PORTFOLIO PROJECT

Making a Profit

Have you ever wondered how prices are determined? People who make a product must determine how much money to charge so that they make a profit. Profit is the money remaining after expenses are subtracted from income.

PROJECT GOAL

Determine the expenses of making cookies and decide on a selling price so that you earn a profit.

Financial Plans

Work with a partner. Choose a cookie recipe you want to make.

1. CALCULATE EXPENSES

• INGREDIENTS

Calculate or estimate how much the ingredients in one batch of cookies cost. For example:

$$\begin{aligned} \text{Cost of 1 cup of sugar} &= \\ \frac{\text{Cost of a bag}}{\text{Cups per bag}} &= \frac{\$1.89}{10} \approx \$0.19 \end{aligned}$$

• TIME

Calculate the cost of your time to make one batch.

$$\text{Labor costs} = \frac{\text{Hours}}{\text{worked}} \times \text{Hourly pay}$$

• FIXED EXPENSES

Assume that you must pay \$25 for a permit to sell cookies.



2. CALCULATE INCOME Research a reasonable price to charge for selling your cookies individually. How much income can you make per batch?



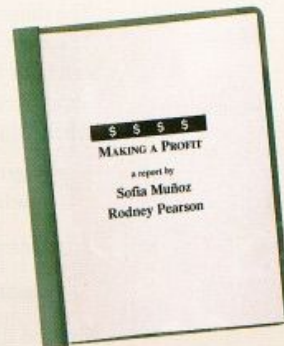


Analyzing Your Data

Use a table and a graph to model expenses and income as functions of the number of batches sold. What is the point at which you make a profit? Write and solve an inequality to show another method of finding the point at which you make a profit.

Making a Report

Write a report about your cookie-making venture. Describe the decisions that you made concerning ingredients, labor costs, and pricing. Include your table, your graph, and a discussion of income and expenses.



You may want to extend your report by examining some of the ideas below:

- Survey friends and neighbors to find the price they would be willing to pay for a cookie. Display that data and any conclusions you can make from the data.
- How do cookie manufacturers' prices differ from your price? Why do you think this is so? How are their expenses different from yours?

Self-Assessment

Write a paragraph explaining your decisions. Which method, making a table, making a graph, or writing an inequality, works best for you?

Describe how you did research. For example, how did you find out what the minimum wage is or what local businesses pay workers for similar work?

What was the most difficult aspect of the project? the easiest? Why?

