

CS 142: Minor Assignment 1

Instructions: Create a new project in Eclipse, download the outline of the `DumplingCalculator.java` file from Canvas, and import it into your project. Fill in the methods appropriately, test your code, and submit the completed project to Canvas by the due date.

Please refer to the “Getting Help” and “Academic Dishonesty” portions of the syllabus for direction on how to get help. You are always welcome to message your instructor. Make use of this if you are stuck!

Set-up: Mabelrose likes to make cornbread dumplings (because she gets to roll the sticky dough in her hands). For two dozen of dumplings, here are the ingredients required:

2/3 cup white flour
2/3 cup whole wheat flour
1 cup corn flour
1/2 teaspoon salt
2 1/4 cups soy milk

At the store, you can buy any quantity of each type of flour (in the bulk section), and each cup of flour costs 35 cents (for all types).

Assume you have plenty of salt on hand and the cost is negligible.

You can only buy soy milk in cartons of 4 cups (i.e. one quart) and one of these cartons costs \$2.50.

The problem: Write a program that scales the above recipe to any number of dozens of dumplings, and computes the cost of the ingredients. Compute the cost for the entire cartons of soy milk, even if you don't use them all in the recipe. For example, making four dozen dumplings requires you to buy two cartons of soy milk, costing \$5.00.

The program should print out the recipe, with each ingredient amount on a separate line, and then print the total cost on a separate line. The cost should be a number of cents, but don't worry about rounding it to a whole number. Each print statement should include some words to indicate what it is printing out.

Comment your code enough that another student could look at it and tell what is going on.

Extra credit (1 point): Get your program to output the cost in the traditional format we use for dollars and cents. For example, if the cost computed was 704.6666666666667 cents, your program should print out: "The total cost of ingredients is \$7.05."