



Problem of the Week

Problem A

Cupcake Bonanza

Archie, Lin, and Umar are making vanilla cupcakes for a bake sale. They need to make 8 dozen cupcakes using the recipe below.

Recipe to make 1 dozen vanilla cupcakes:

- 250 grams flour
- $2\frac{1}{2}$ grams salt
- 8 grams baking powder
- $\frac{1}{4}$ cup of butter
- 150 grams sugar
- 2 eggs
- 240 mL milk
- 5 mL vanilla

(a) How much of each ingredient do they need to make 8 dozen cupcakes?

(b) They have enough salt, baking powder, and vanilla already. They do not have any of the other ingredients. When they go to the store, they see the ingredients they need are sold in packages in the following sizes:

- Flour is sold in 1 kg bags.
- Butter is sold in 1 cup blocks.
- Sugar is sold in 2 kg bags.
- Eggs are sold by the dozen.
- Milk is sold in 1 L cartons.

How many of each package of the ingredients do they need to buy to have enough to make all of the cupcakes?