 Lamington drive

Background

Many sporting clubs rely on fundraising to buy new equipment, build new facilities and to keep membership costs down. As such, clubs are always on the lookout for new and creative fundraising ideas.

Your sporting club has decided to hold a Lamington Drive as a fundraiser. The ingredients for the recipe you will use are listed below.

Ingredients (makes 15 lamingtons)

* 125g butter
* 1 cup caster sugar
* ½ teaspoon vanilla extract
* 3 eggs
* 1¾ cups self raising flour
* ½ cup milk
* 2 cups desiccated coconut

Icing

* 3½ cups icing sugar
* ¼ cup cocoa powder
* 1 tablespoon butter
* ½ cup boiling water

Preparation: 35 minutes Cooking time: 30 minutes Cooling time: 1 hour

[Recipe for Lamingtons from Taste.com](https://www.taste.com.au/recipes/lamingtons-2/1e80f6e8-a459-4b79-814b-cfeda0cf3116)

Part A: Planning the event

1. You must decide how many lamingtons you will make. Justify your answer by talking about how many people are at your sporting club and how many lamingtons each person will be expected to sell.
2. Adjust the given recipe to cater for the required number of lamingtons. List each ingredient, the required quantity and the calculation you used to find this amount.

| Ingredient | Calculation | Quantity required |
| --- | --- | --- |
| Butter |  |  |
| Castor sugar |  |  |
| Vanilla extract |  |  |
| Eggs |  |  |
| Self-raising flour |  |  |
| Milk |  |  |
| Coconut |  |  |
| Icing sugar |  |  |
| Cocoa powder |  |  |
| Water |  |  |

Part B: Going shopping

1. Visit a supermarket (or use an online website if you have access). For each ingredient listed above, choose a suitable brand and size and list the details in a table similar to the one below. (You may use a spreadsheet if you have access to technology).

| **Ingredient** | **Brand** | **Size** | **Purchase price** | **Quantity needed** | **Price per quantity** |
| --- | --- | --- | --- | --- | --- |
| Butter | Devondale | 250g | $4.30 | 2 kg | $4.30 x 8 = $34.40 |
| Castor sugar |  |  |  |  |  |
| Vanilla extract |  |  |  |  |  |
| Eggs |  |  |  |  |  |
| Self-raising flour |  |  |  |  |  |
| Milk |  |  |  |  |  |
| Coconut |  |  |  |  |  |
| Icing sugar |  |  |  |  |  |
| Cocoa powder |  |  |  |  |  |
| Water |  |  |  |  |  |

1. Where options were available, justify why you chose the brand and size you did ie buying 1kg packet of flour rather than 2 x 500g
2. What is the total cost of your ingredients?

Part C: Baking

1. Decide how long it will take you to make all of the lamingtons necessary for the fundraiser? Consider whether you can make more than one batch at a time. Justify your answer.
2. What if you had helpers, using their own kitchens, to help you make the lamingtons? What would be the optimum number of helpers? Justify your answer.

Part D: Preparing for sale

1. Using the prices you collected from your shopping trip, calculate the price per lamington to produce.
2. What price will you sell your lamingtons for? Justify your answer.
3. How much profit will your sporting club make?
4. Investigate the effect of raising or lowering the price of your lamingtons on your profit margin.
5. Explain any other factors that you would need to consider if you were planning this fundraiser in real life.

Outcomes

* MA4-1WM communicates and connects mathematical ideas using appropriate terminology, diagrams and symbols
* MA4-2WM applies appropriate mathematical techniques to solve problems
* MA4-3WM recognises and explains mathematical relationships using reasoning
* MA4-5NA operates with fractions, decimals and percentages
* MA4-6NA solves financial problems involving purchasing goods
* MA4-7NA operates with ratios and rates, and explores their graphical representation
* MA4-15MG performs calculations of time that involve mixed units, and interprets time zones