

Answers

Questions

1. Answers to the nearest whole unit (allowing for half units).

Ingredients	12 Cupcakes	24 Cupcakes	6 Cupcakes	10 Cupcakes
butter	110g	220g	55g	92g
caster sugar	110g	220g	55g	92g
self-raising flour	110g	220g	55g	92g
eggs	2	4	1	2
vanilla extract	1 tsp	2 tsp	$\frac{1}{2}$ tsp	0-1 tsp
milk	1-2 tbsp	2-4 tsp	$\frac{1}{2}$ - 1 tsp	1-2 tbsp

2. If I used the quantities of icing sugar shown below to make the icing, how many whole cupcakes could I cover?

- a. 150g = 6 cupcakes
- b. 900g = 36 cupcakes
- c. 200g = 8 cupcakes

3. Fill in the gaps in the table.

Ingredients	12 Cupcakes	<u>48</u> Cupcakes	2 Cupcakes	<u>240</u> Cupcakes
butter	110g	440g	18.3g	2200g or 2.2kg
caster sugar	110g	440g	18.3g	2200g or 2.2kg
self-raising flour	110g	440g	18.3g	2200g or 2.2kg
eggs	2	8	$\frac{1}{3}$ egg	40
vanilla extract	1 tsp	4 tsp	0.2 tsp	20 tsp
milk	1-2 tbsp	4-8 tbsp	0.2-0.3 tbsp	20-40 tbsp

Extension

Look back over your answers. What is the main problem, with regards to quantities, when scaling recipes up and down? Give examples.

Students may select different examples, but should make similar points to below:

Scaling recipes down can result in quantities of ingredients that are very difficult to measure, such as $\frac{1}{3}$ egg. Scaling recipes up results in a large difference between the top and bottom range of a quantity, such as 1-2 tbsp of milk becoming 20-40 tbsp of milk for a much larger quantity.