

Ratios KS3 Maths

Sophie

Right Mathsmutt... The party starts in two hours. We need to get baking.

Mathsmutt

Let's do this.

Sophie

(coughing)

If only we knew how to bake.

Great, all we need to do is follow this recipe for my Granny's mega muffins. It says here to make 12 muffins we need 2 eggs, 200g of castor sugar, 250ml of milk and 400g of flour. Then use 1 egg to make 6 muffins for every 200g of flour, with sugar, milk and flour in this ratio...

Mathsmutt

Uh-oh Sophie. We've got loads of everything else, but only one kilogramme bag of flour.

Sophie

Hmmmm. So with just 1000 grams of flour, how many muffins can we make?

Mathsmutt

Well, Granny's recipe says that to make 6 muffins we need 1 egg and 200g of flour.

Sophie

And there's 5 lots of 200g in our kilo of flour. So that's 5 lots of 6 muffins, which is 30 mega muffins! So we know we need 5 eggs. But what about the rest of the ingredients?

Mathsmutt

Granny's recipe gives us the ratio, 4:5:8. That means for every 8 portions of flour, we need 4 portions of sugar.

Sophie

So that's half the amount! Half of 1000g is 500g. Ok now the milk, Granny says for every 8 lots of flour we use 5 lots of milk... Oh Mathsmutt, I'm confused...

Mathsmutt

Let's break it down!

Ok. Let's look at the ratio again. We've only got 1000g of flour, so that's our 8 shares.

Bitesize

Now we need to know... what 5 shares of milk will be, and to do that....

Sophie

We need to work out what 1 share is.

Mathsmutt

Correctamundo! We know that 1000 is 8 shares, right? 1000 divided by 2 is 500, which divided by 2 again is 250, which divided by 2 again is 125.

Sophie

Of course, there's 8 125's in 1000!

Mathsmutt

So if one share of milk is 125, that's 125ml, then we're gonna need five times that... which is 625ml.

Sophie

Ok we've got our 4 parts sugar, our 5 parts milk, and our 8 parts flour; let's bake!

Mmmmm everybody's going to love Granny's mega muffins!

Mathsmutt

So Sophie, did you find ratios and proportions a piece of cake?

Sophie

Well, when you know how there's really... muffin to it.

All

Party!