



Number Partners Challenge 2017 Volunteer Tip Sheet



Round Three: Pumpkin Pies

This challenge looks at ratios, division and fractions! You should **spend no more than 30 minutes** on the challenge as a whole – try and get as far as you can, but incomplete entries can still be submitted. Make sure to show your working out!

You will need:

- Entry sheet
- Scrap paper and pens for your working out

All of the activities featured in the challenge this year are adapted from resources from nrich at the University of Cambridge - <http://nrich.maths.org>



Pumpkin Pies

Saira wanted to make five pumpkin pies to sell at the charity fair, each pie would have 8 slices. Her mother, a professional baker, had a recipe for making 30 pies. She used:

- 5 dozen eggs
- 1.5 litres of condensed milk
- 330 tablespoons of sugar
- 90 cups of pumpkin

How much of each ingredient does Saira need for 5 pies?

Saira, sold $\frac{1}{2}$ of the pie slices in the morning. In the afternoon, she sold $\frac{3}{5}$ of the remaining slices. When the fair ended she gave $\frac{1}{4}$ of what was left to her friend Anita and took the rest home.

How many slices did Saira take home?

For groups that are able, there is an extension question for bonus points:

If Saira made £80 at the fair, how much did she charge for each slice?

Tips for volunteers

- Encourage pupils to think through the problem and understand how ratios and proportion come into play in each question
- Pupils should start by converting each unit into a number value to help with ratios
- Pupils who struggle with division should be guided to think about doubling and halving etc. to find the ratio of each ingredient needed
- When tackling the second question pupils can try drawing out the five pies and slices to visualise the fractions and solve the problem



Tweet us @NumberPartners your team's photos, comments and thoughts using #CountMeIn

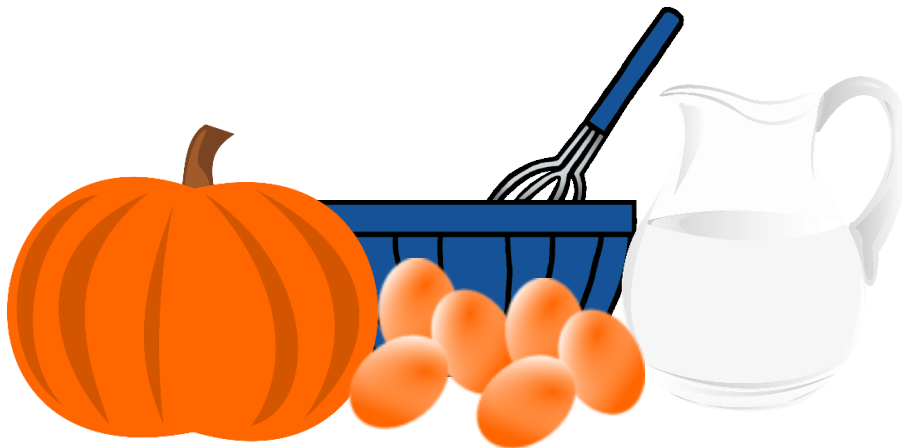
Round Three: Pumpkin Pies

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How many slices did Saira take home?

Extension question (if you have time)

If Saira made £80 at the fair, how much did she charge for each slice?



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Number Partners Challenge 2017



Team Entry Sheet: Round Three

Team Name:		
School Name	Pupil Names	Volunteer Company

How much of each ingredient does Saira need?	Eggs	
	Milk	
	Sugar	
	Pumpkin	/4
How many slices of pie did Saira take home?		/4
How much did Saira charge for each slice of pie?		/4

Total	/12
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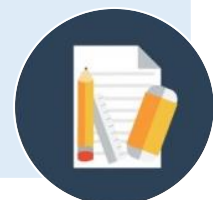
Submit your entry to:

Anita Kessie, Curriculum Project Coordinator

Email: Anita.Kessie@thebp.co.uk

Fax: 020 7375 2323

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Deadline for all entries is **Friday, 31 March 2017**