THE 2025 YOUNG MATHEMATICAL STORY AUTHORS (YMSA) COMPETITION

THE STUART J. MURPHY AWARD
(THE 8-11 YEARS OLD CATEGORY)

LONGLISTED

‘Algebra Bakery’

by Adi Ben-Yaacov (10 years old)

at St Christopher's London (UK)

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#YMSAMaths

ALGEBRA BAKERY

Adi Ben-Yaacov
St christophers

Circle and Square were peacefully baking bread and treats for the Algebra Festival in Mathsland. A rectangle with a moustache walked towards the counter and asked,

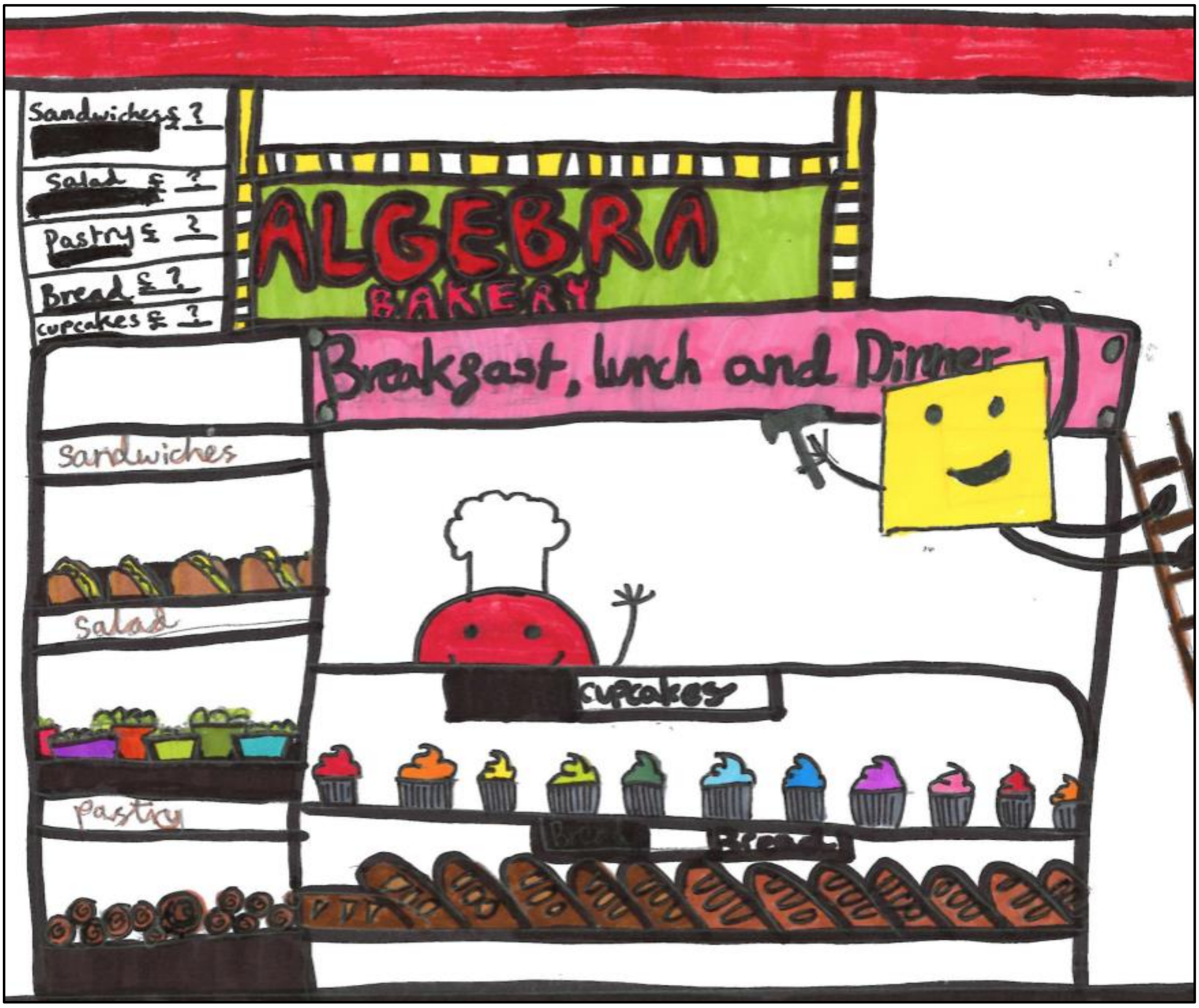
“Can I have a box of 6 cupcakes and 2 loaves of bread, please?”

“Of course!” replied square.

Circle started to pack the cupcakes into a box and the bread into the bag.

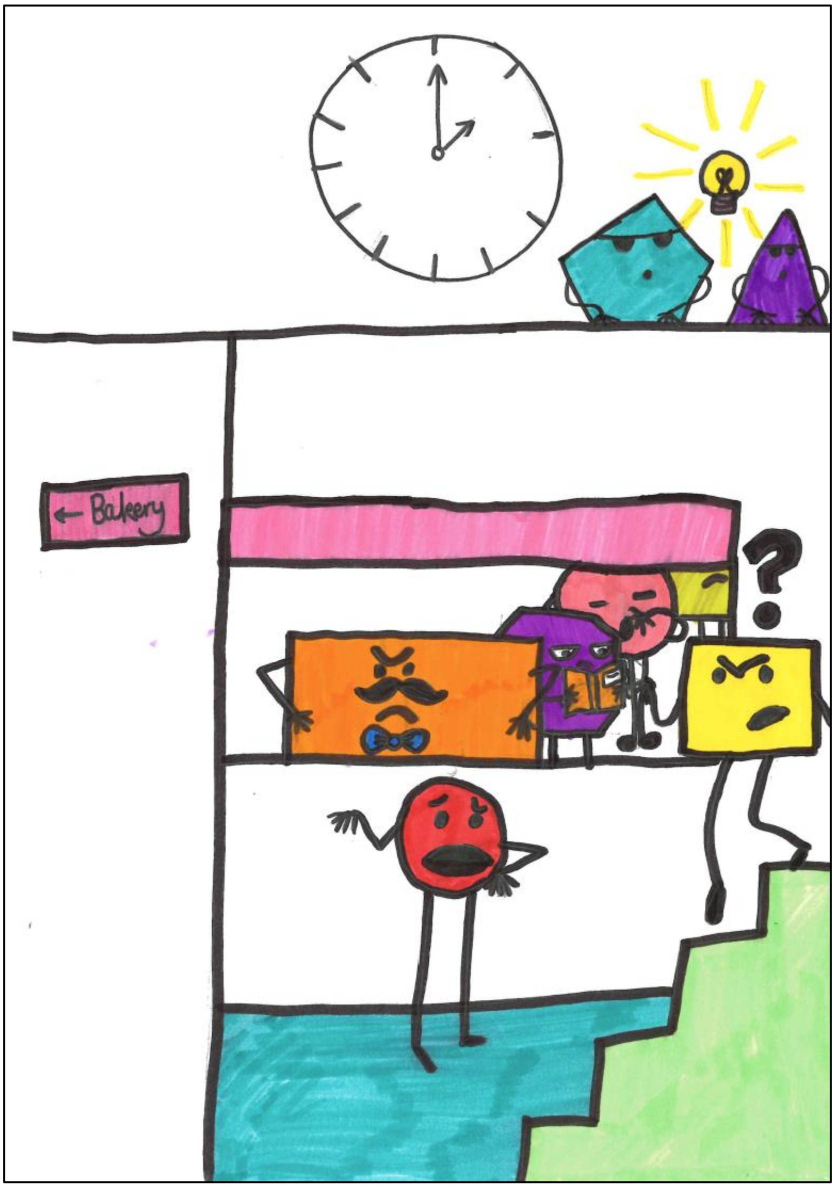
“That will cost…”

The prices have gone missing!



Circle was frantically searching for the prices, but she could not find them. She has just noticed that there were long queues waiting by the counter. She buried her face in her hands. Square sympathetically walked over to her and said,

“Maybe someone here can help.”

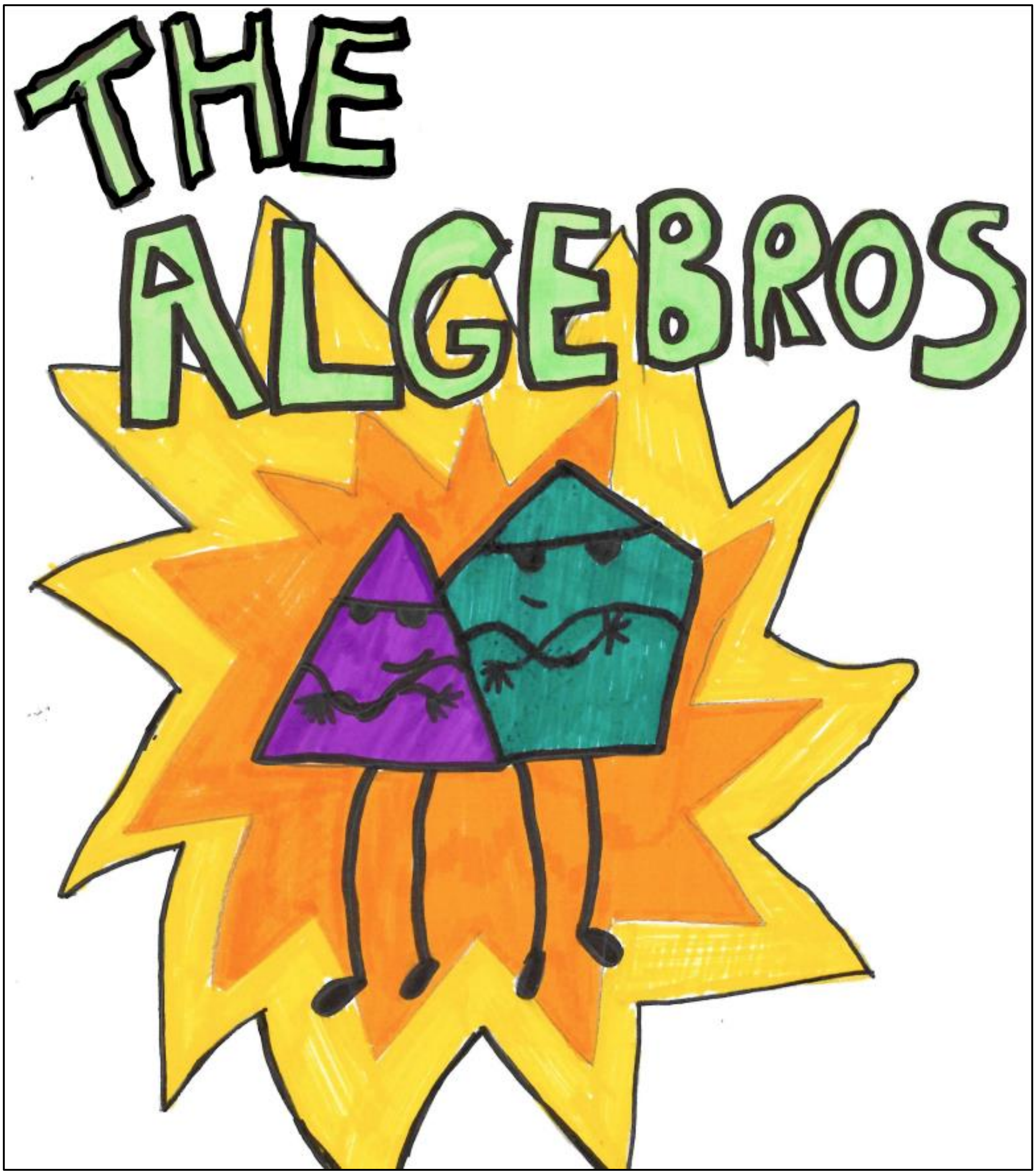


Square was right! Two shapes burst through the doors, one was a triangle, and the other one was a pentagon.

“We are the Algebros, I’m Triangle and this is Pentagon, what’s the problem?” said the triangle.

“All of the prices have gone missing!” mumbled Circle and Square.

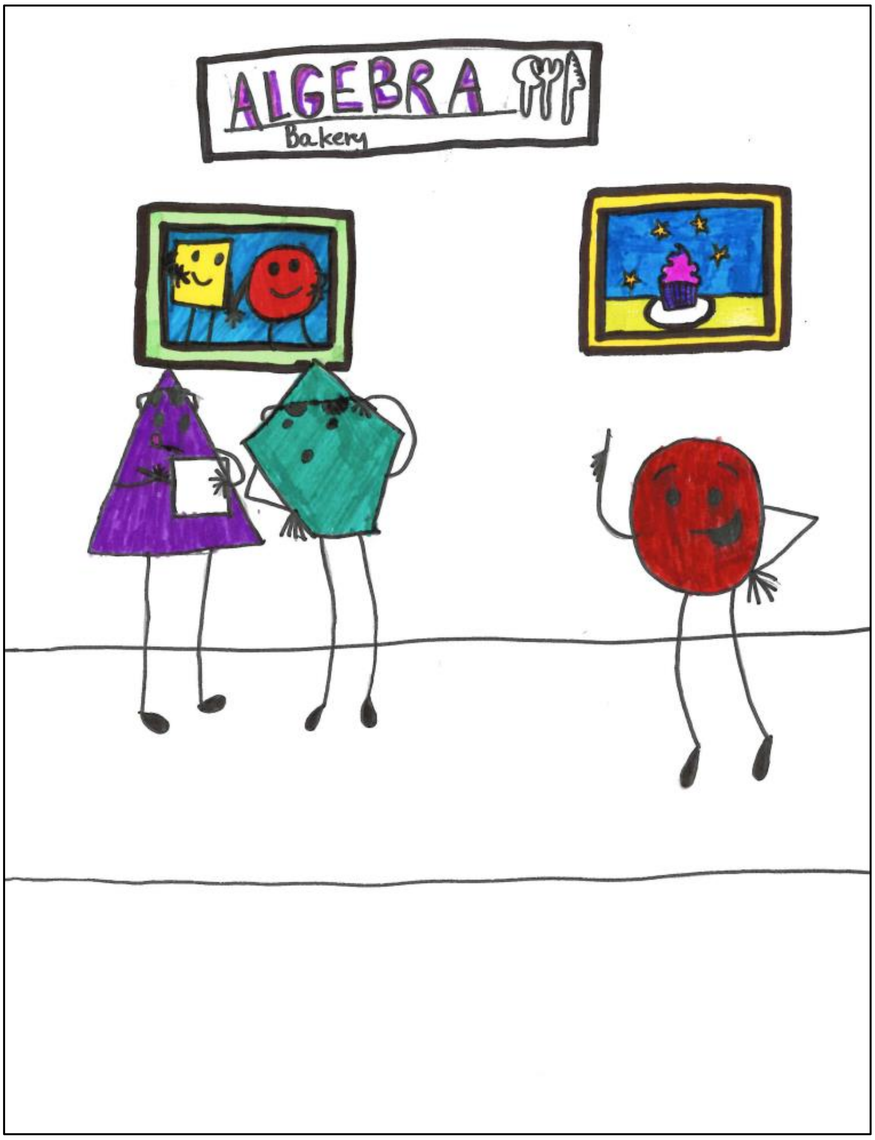
“Oh, we know how to fix that!” Triangle and Pentagon said in unison.



“What do you remember?” asked Triangle.

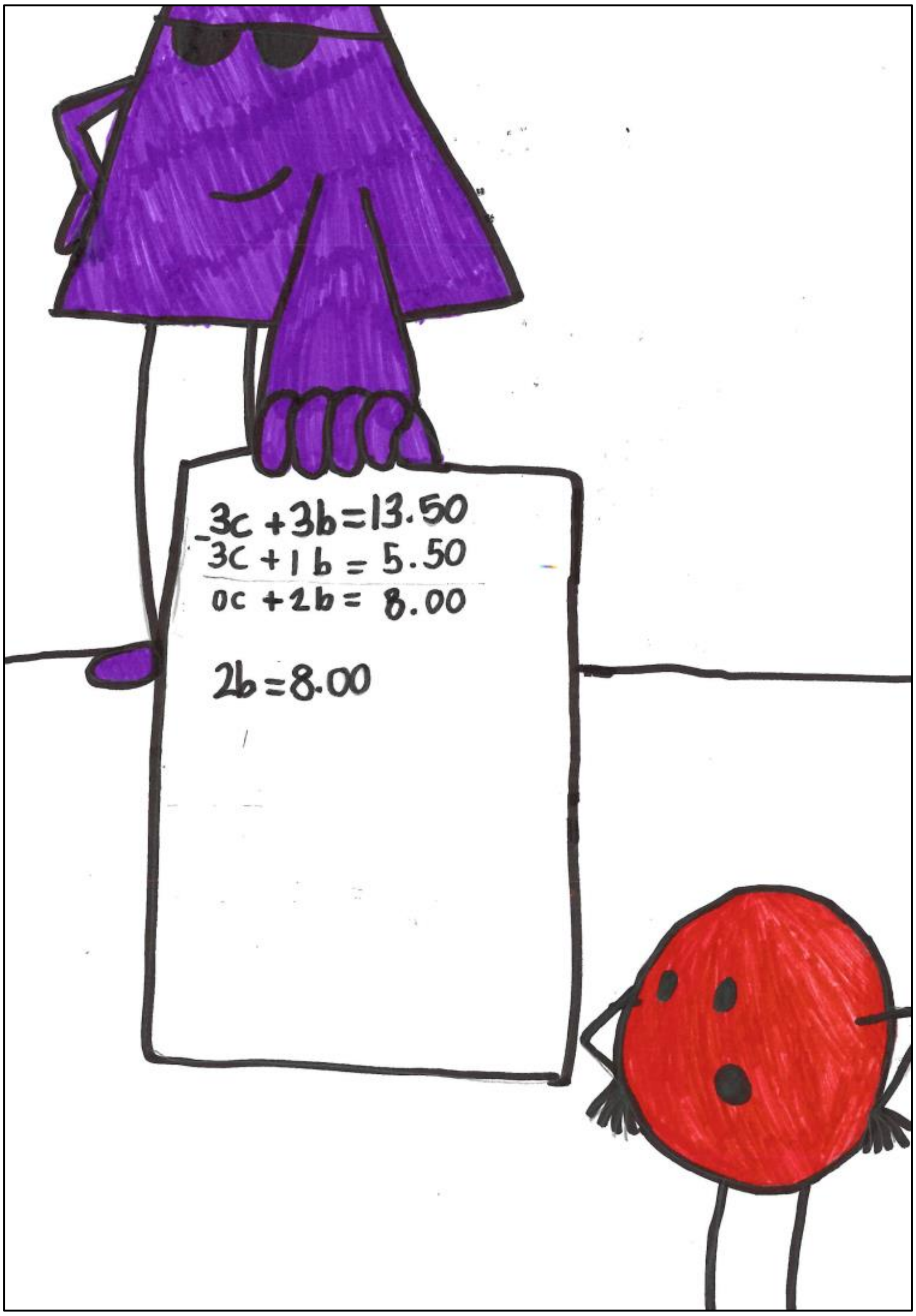
“I remember that 3 cupcakes and 3 loaves of bread were 13.50 in maths money and 3 cupcakes, and 1 loaf of bread were 5.50.” sighed Circle.

“That’s great! Let’s get started!” exclaimed Pentagon. While Pentagon was talking, Triangle was already writing out an equation.



“When we are using this type of algebra, we write it like this.” Pentagon pointed to Triangle’s drawing. The information that Circle has given them was in two rows and they replaced cupcakes with C and loaves of bread with B.

“Then you subtract these two equations, and you get an answer!” Triangle scribbled another equation!



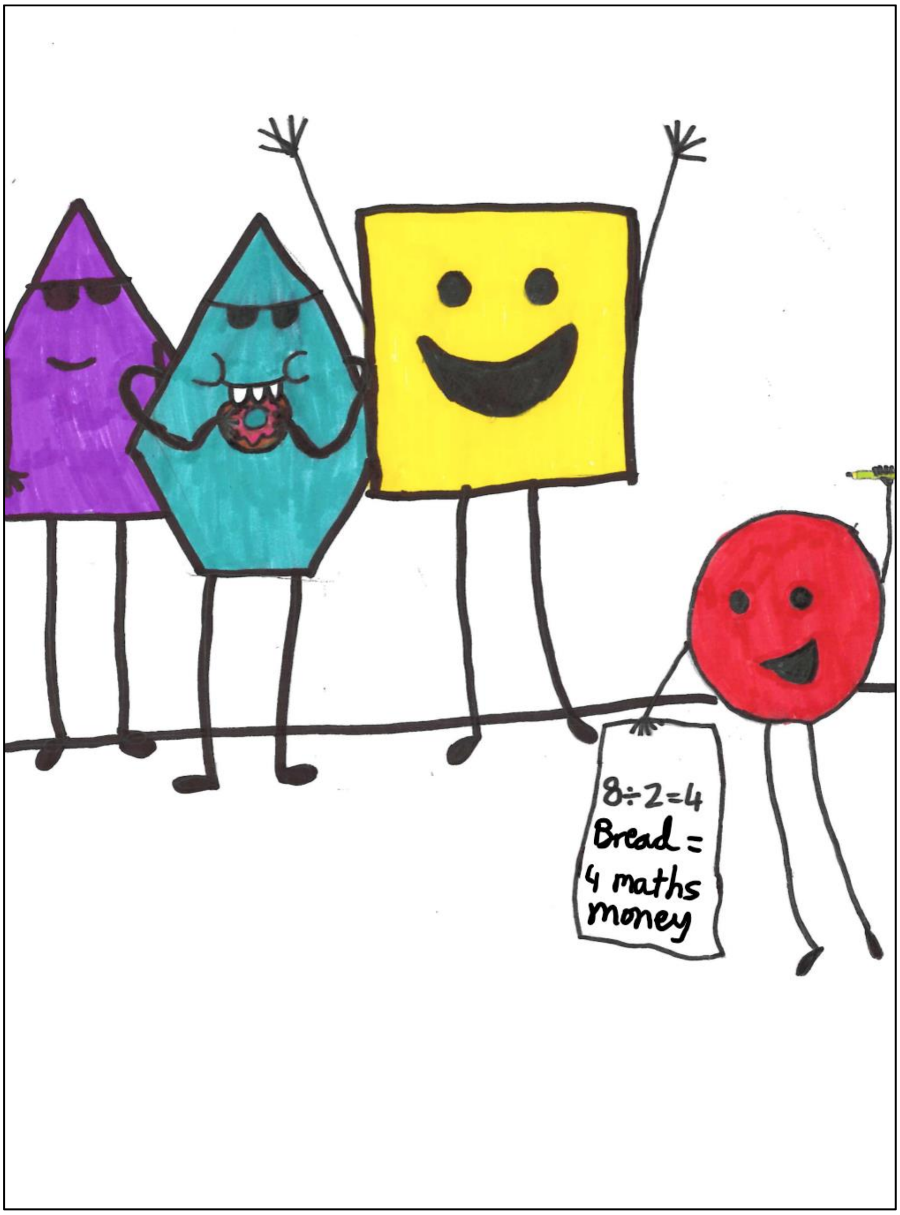
“What next?” said Square, excited to learn more.

“Then, you can use that answer to get another, and you have solved your first algebra problem!”

“Brilliant!” sang Square.

“So now we know that two loaves of bread are 8 in maths money, that means one loaf is 4!” said Circle.

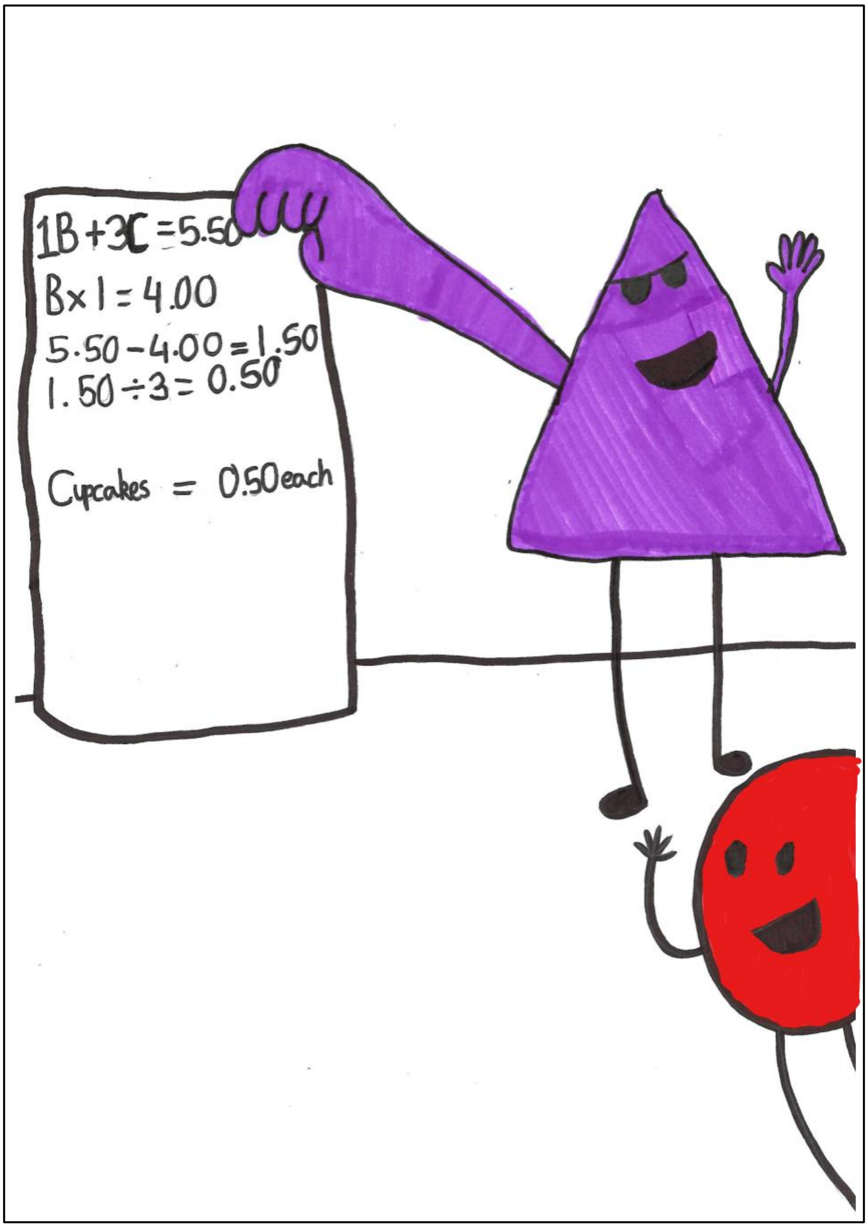
“That’s right!” exclaimed Pentagon.



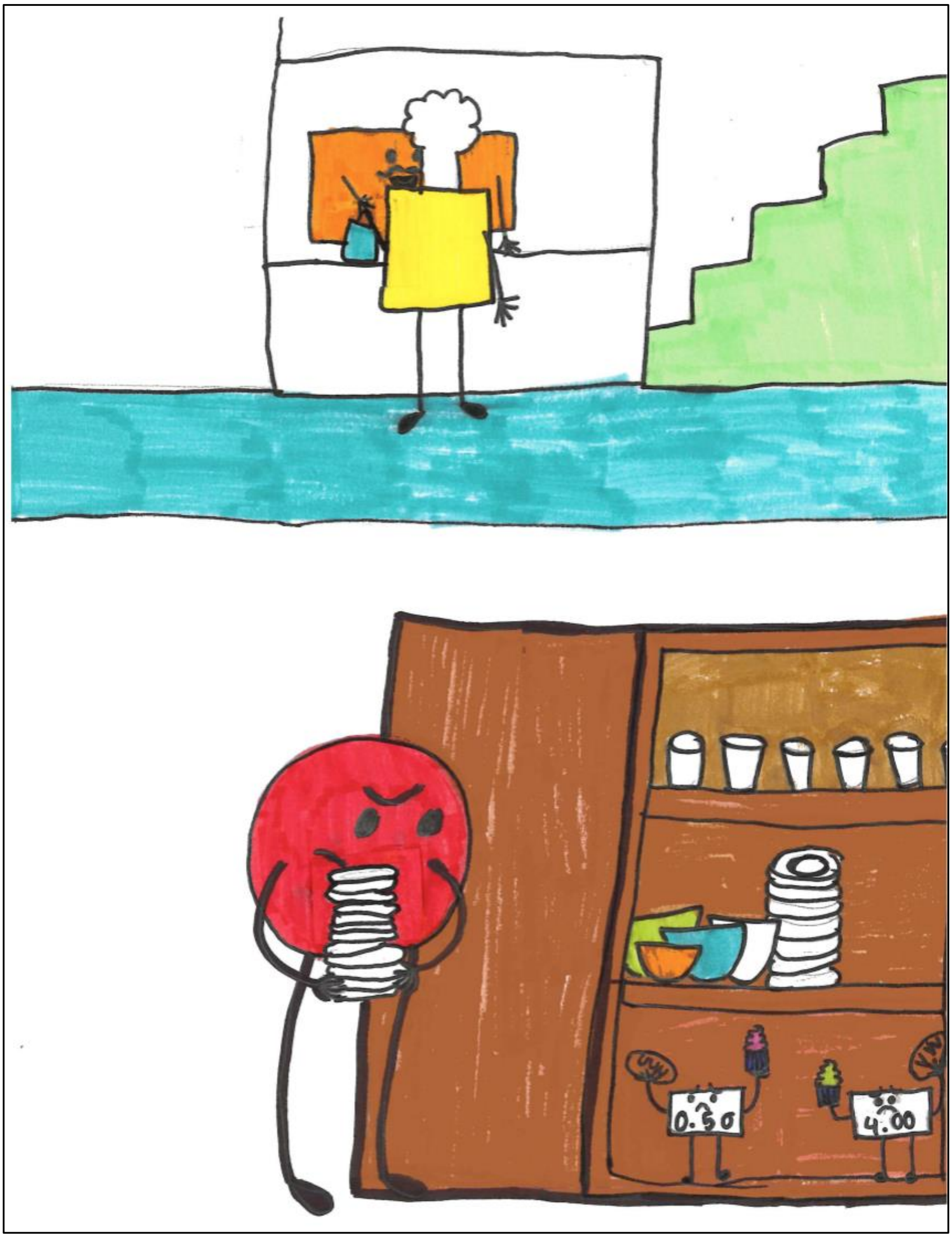
Triangle explained that in one of the equations there is one loaf of bread and three cupcakes that equals 5.50 maths money and 5.50 - 4.00 = 1.50 so three cupcakes are 1.50.

“If three cupcakes are 1.50, that means one cupcake is 0.50!” Square cheered.

“Exactly!” laughed Pentagon. Triangle and Pentagon walked away with smiles on their faces.



Circle and Square now understood algebra and can sell treats for the algebra festival. At the end of the day, square was sweeping the floor of the shop and Circle was in the kitchen washing plates. Circle opened a cupboard to put the plates in. That is strange. At the back of the cupboard were the maths money prices, 4.00 and 0.50 feasting on cupcakes and bread. They all stared guiltily at Circle.


0.50
4.00

Blurb

Circle and square work at a lovely bakery in Mathsland, what could go wrong? One day, all the prices have gone missing! Luckily, two brothers (Triangle and Hexagon) teach circle and square how to solve tricky puzzles like these with algebra. Can they solve this mysterious problem and find the prices of all their treats?

All about me

My name is Adi Ben-Yaacov, I am ten years old, and I go to St Christopher's school. I wrote this book about algebra because I it is an interesting topic that makes you want to learn more about it as you use it. This humorous and intriguing story will leave you with a smile on your face and knowledge of algebra in your pocket.