



**THE 2022 YOUNG MATHEMATICAL STORY AUTHOR (YMSA) COMPETITION**

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

**SHORTLISTED**

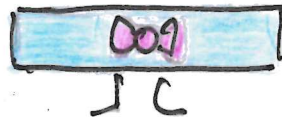
'Fraction Friends' by Olivia Peck (10 years old)  
at St Christopher's School (UK)

You can read the author's inspiration for the story and the judges' comments  
on:

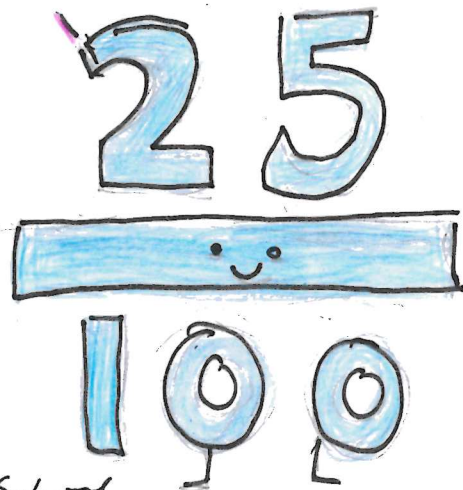
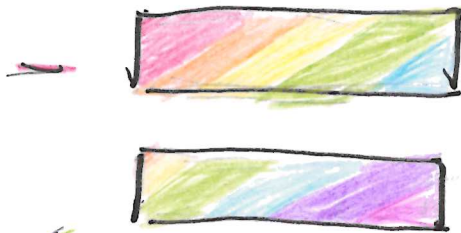
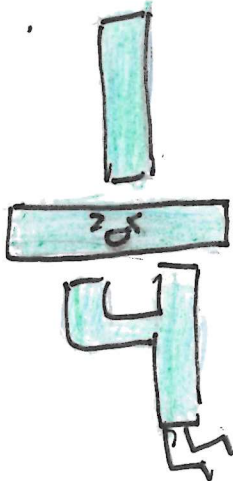
[www.mathsthroughstories.org/ymsa2022](http://www.mathsthroughstories.org/ymsa2022)

**#YMSAMaths**

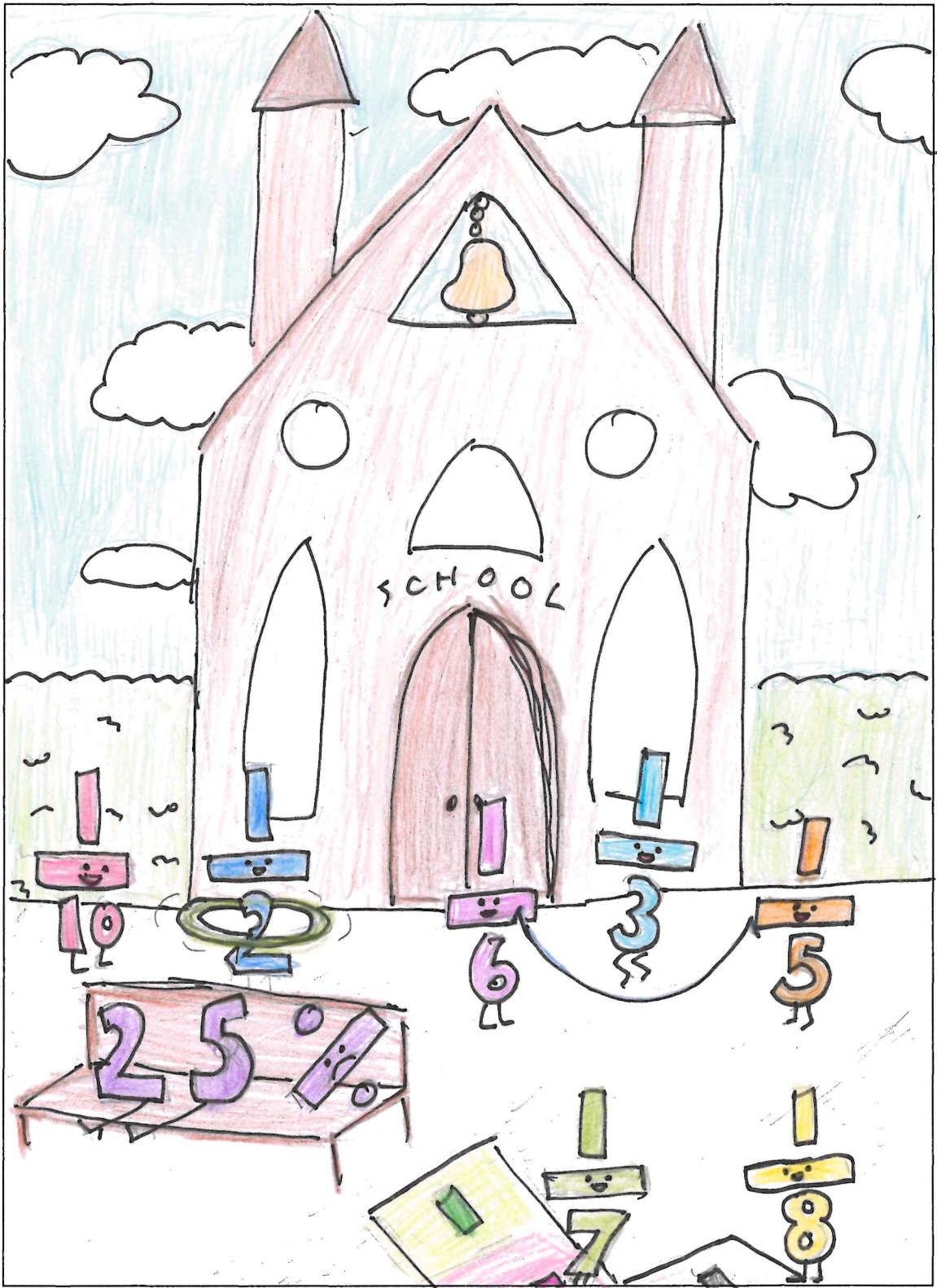
# Fraction Friends



25%



By Olivia Peck - St Christopher's School



It is the first day of school and 25% has just realised that he is the only percentage in the whole playground! He sees all of the fraction friends playing together and feels extremely lonely.



Mr Equivalent (25%'s favourite teacher) saw him sitting alone on the bench.

"What's the matter?" he asked.

"I am the only percentage in the WHOLE school. I feel really alone."

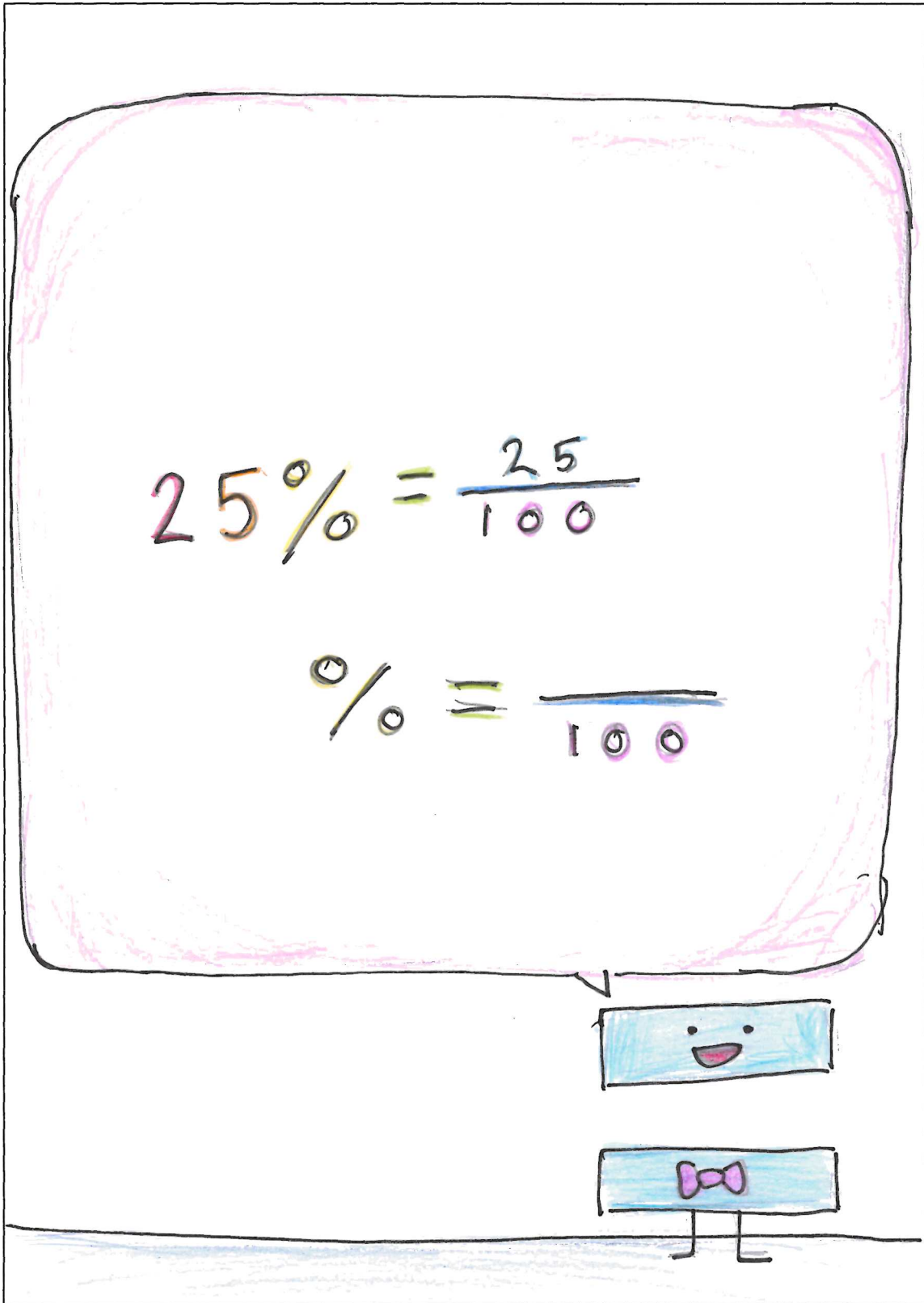
"Well," enquired Mr Equivalent, "Why don't you just convert yourself?"

"What do you mean?" 25% asked.

"Well, to convert is to turn a number from one form into another. In your case, it is to turn a percentage into a fraction."

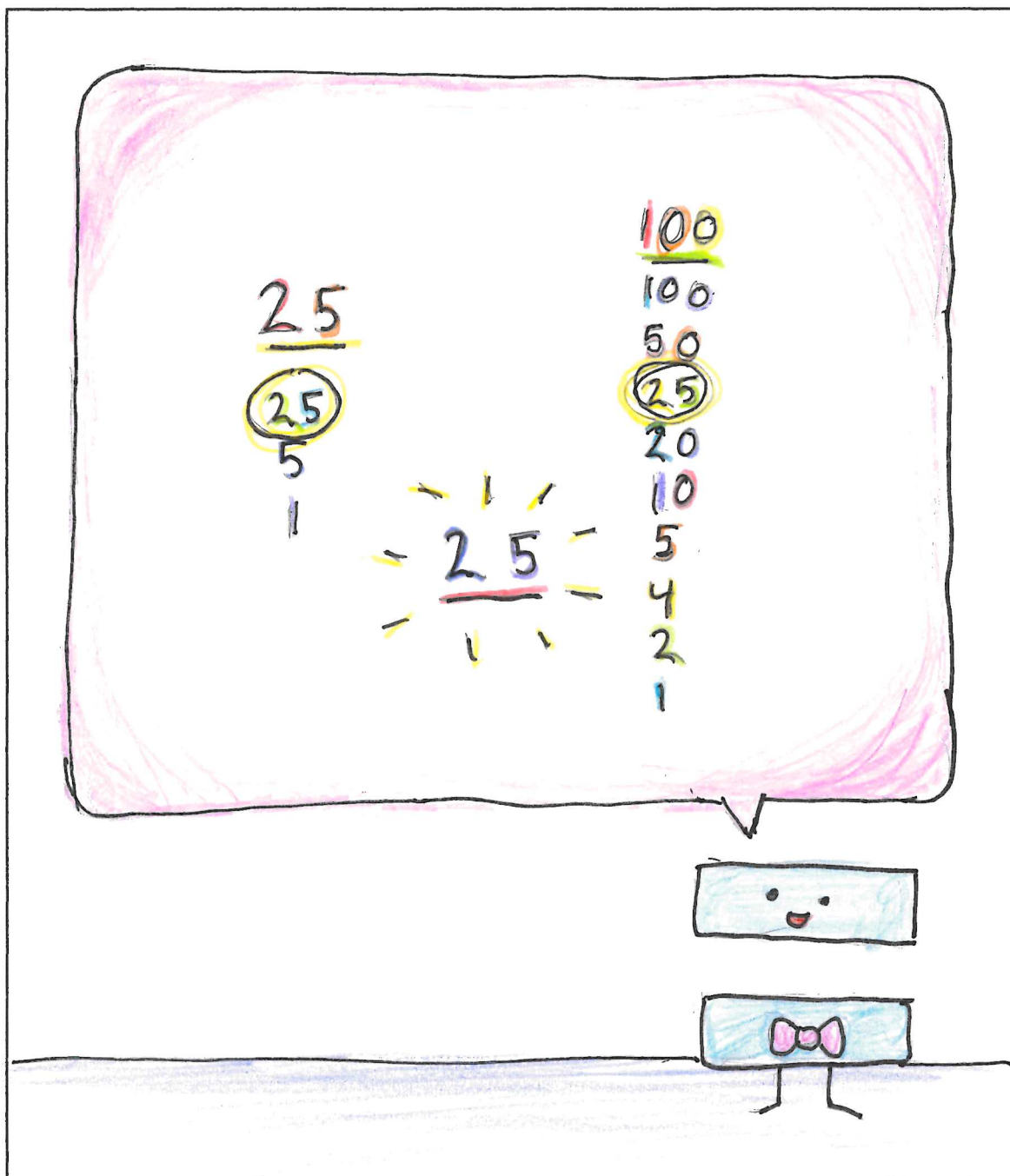
"Really?" 25% 's face lit up like a Christmas tree. "You can do that?"

"Why of course! Let's get started right away."



“Okay,” Mr Equivalent instructed. “The first thing to do is to make you into 25/100, since % means out of 100.”

“Right!” 25% (now 25/100) said. “What’s next?”

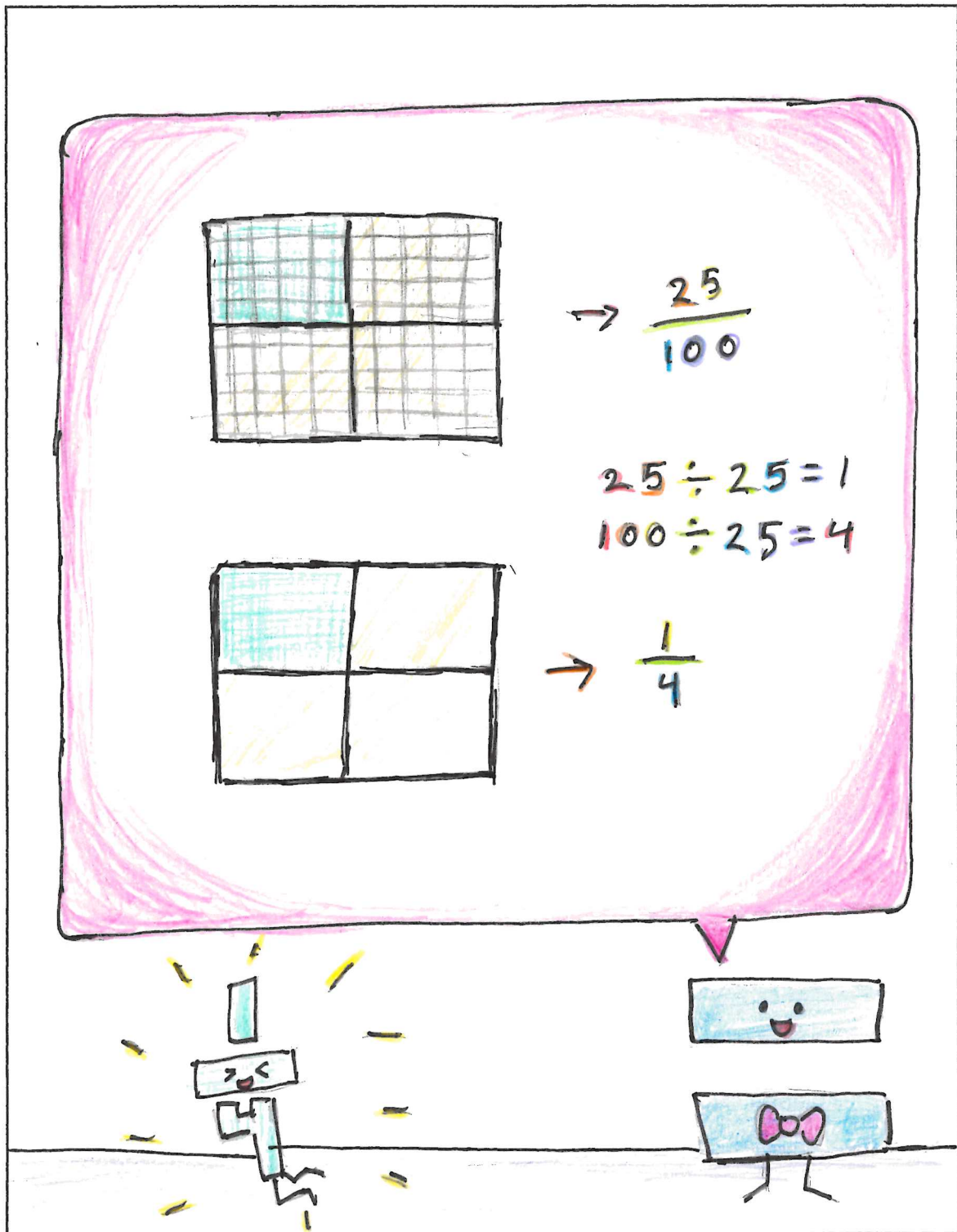


“Next, we need to find the highest common factor (or HCF) of both numbers.”

“What does that mean?” asked 25/100.

“Well, a factor is a whole number that divides exactly into another whole number without a remainder. For example, 1, 5 and 25 are all factors of 25. For 100, its factors are 1, 2, 4, 5, 10, 20, 25, 50, and 100. To find the highest common factor, it means to find the largest factor which is shared by given numbers. For example, common factors of both 25 and 100 are 1, 5 and 25, but the largest of those factors is 25, so the highest common factor of 25 and 100 is 25.”

“Ok, I get it now. What do we do then?”

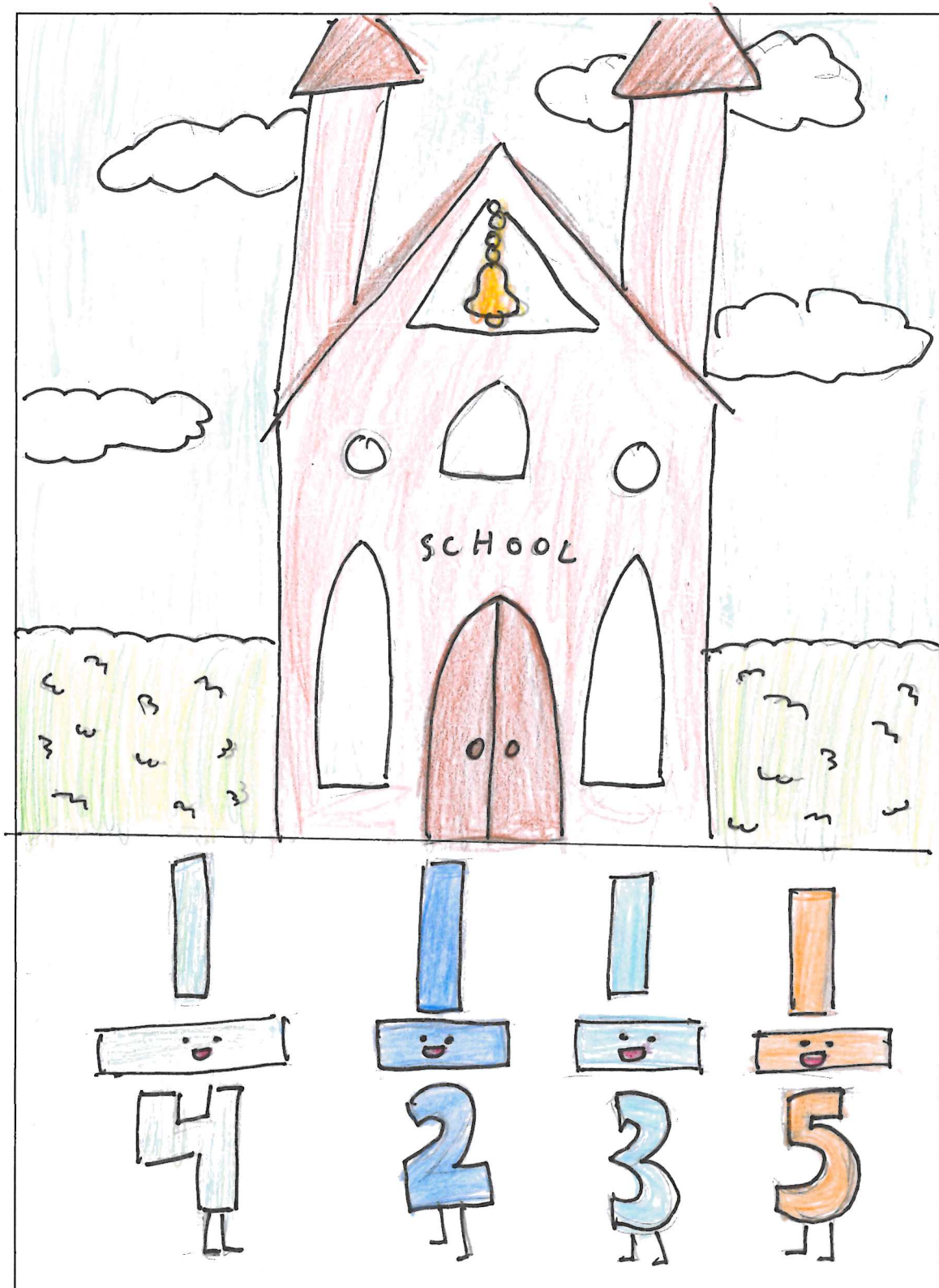


"Then we divide each number by your highest common factor, which is 25." said Mr Equivalent.

"Hmmm... Well, 25 divided by 25 is 1, and 100 divided by 25 is 4. So I am  $\frac{1}{4}$ !"

"Great job! Are you happy with your new form now?"

"YES!"  $\frac{25}{100}$  (now  $\frac{1}{4}$ ) was jumping with joy!



Now he was a fraction,  $\frac{1}{4}$  didn't feel lonely at all! He skipped back onto the playground and easily made lots of new fraction friends.



## BLURB

It is the first day of school, and 25% has no one to play with. Will his teacher be able to help him make some fraction friends?



## ABOUT THE AUTHOR

I live in London with my Mom, Dad and sister. I love reading books, and my favourite subjects are maths, science and English. I got inspired to write about this theme because it is my favourite area of maths, and I find it really fun!