A MATHEMATICIAN LIKE















A MATHEMATICIAN LIKE me





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wren & rook

Oh no! Aliyah overslept, and her cousin's arriving any minute to take her camping. She races around getting dressed super-quickly.



"Hi, Aliyah," Robin says. "Are you ready?"

"Yes! Where are we going?"

"That's a surprise." Robin winks. "First we have to go shopping."



"We have to go to two places," Robin says. "So how many things will we get in each shop?"

Aliyah works it out. "There are four different items . . . so two in one shop and two in another. Or three in one and one in the other!"

Robin nods. "Numbers are all around us!"

"I need some new tent pegs because my old ones are bent," Robin says when they get to the first shop.



"Tent pegs need to be straight to keep the rope tight. They must be put in the ground at an angle to grip into the soil, otherwise they'll come out and the tent will fall down!"



"What's an angle?" Aliyah asks.



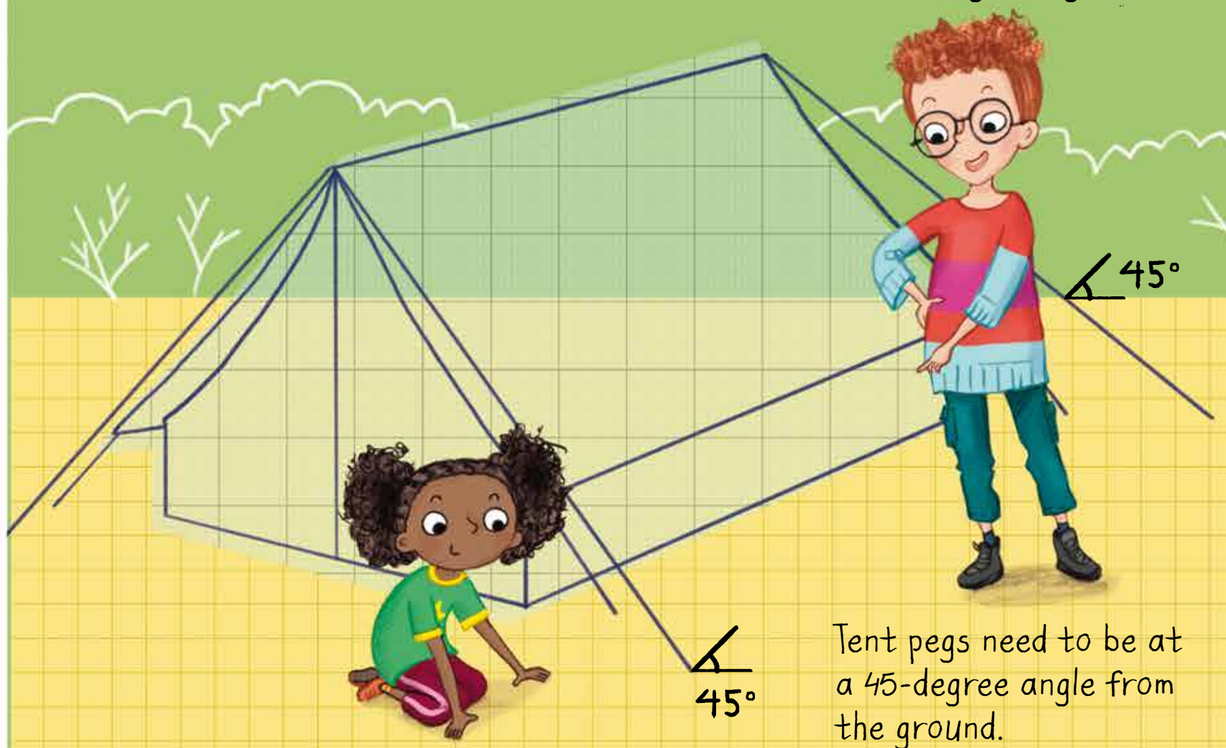
An angle is the distance between two lines that meet each other. Angles are measured in degrees.



A full circle has 360 degrees ...

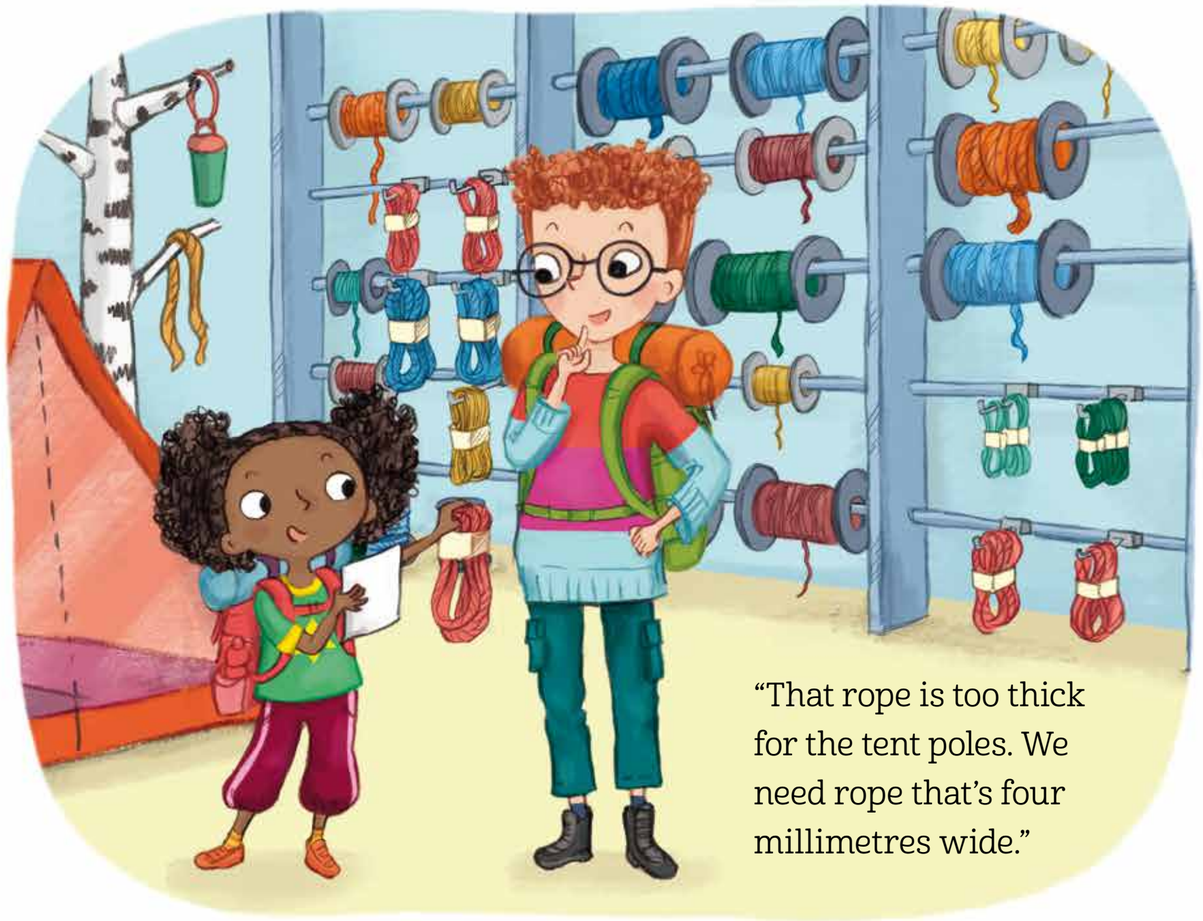


and a quarter circle has 90 degrees, which is called a right angle.



Tent pegs need to be at a 45-degree angle from the ground.

Aliyah looks at the list. “We can get rope in here too!”
She grabs the nearest pack of rope, but Robin shakes her head.

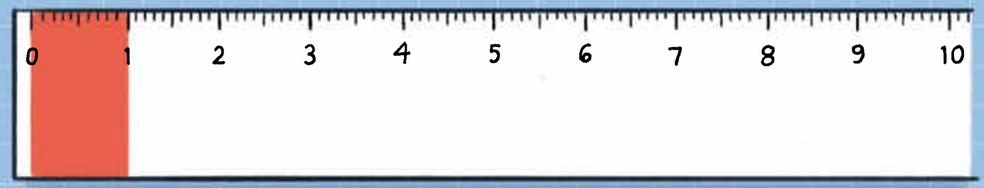


“That rope is too thick for the tent poles. We need rope that’s four millimetres wide.”

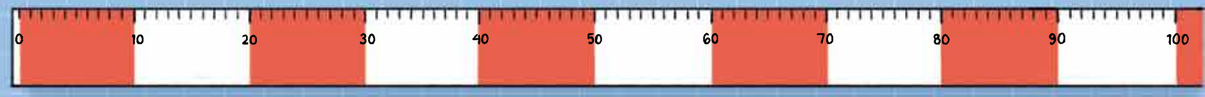
“What are millimetres?” Aliyah asks.

“Millimetres are a type of measurement.

There are ten millimetres in a centimetre,



and a hundred centimetres in a metre.

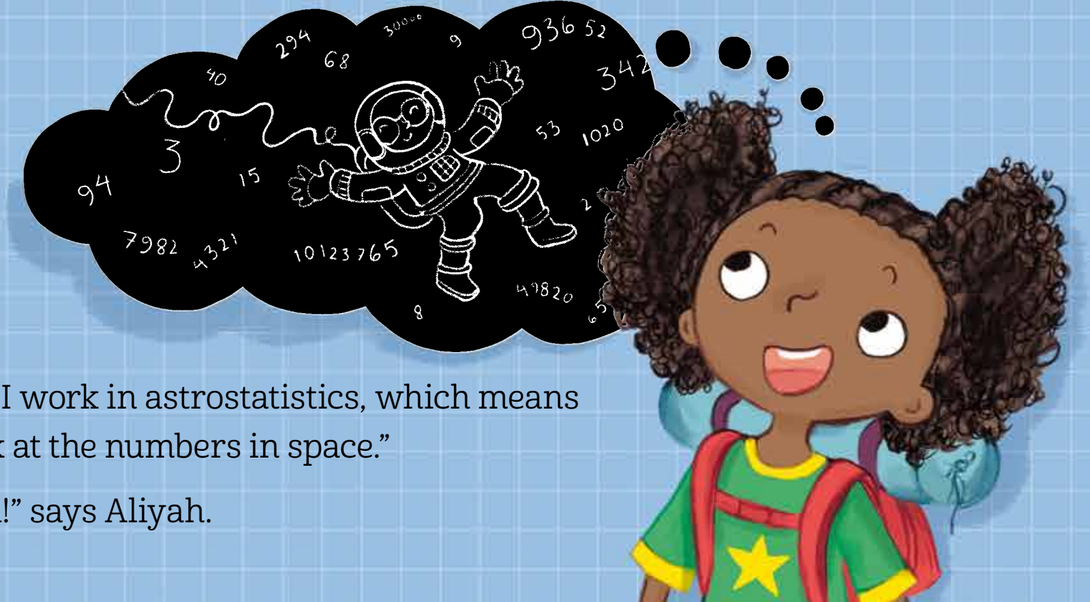


So how many millimetres are in a metre?”

Aliyah thinks hard. “Ten times a hundred … equals a thousand!”

“Correct!” says Robin. “You’re good at maths. Like me!”

“Is that your job?”

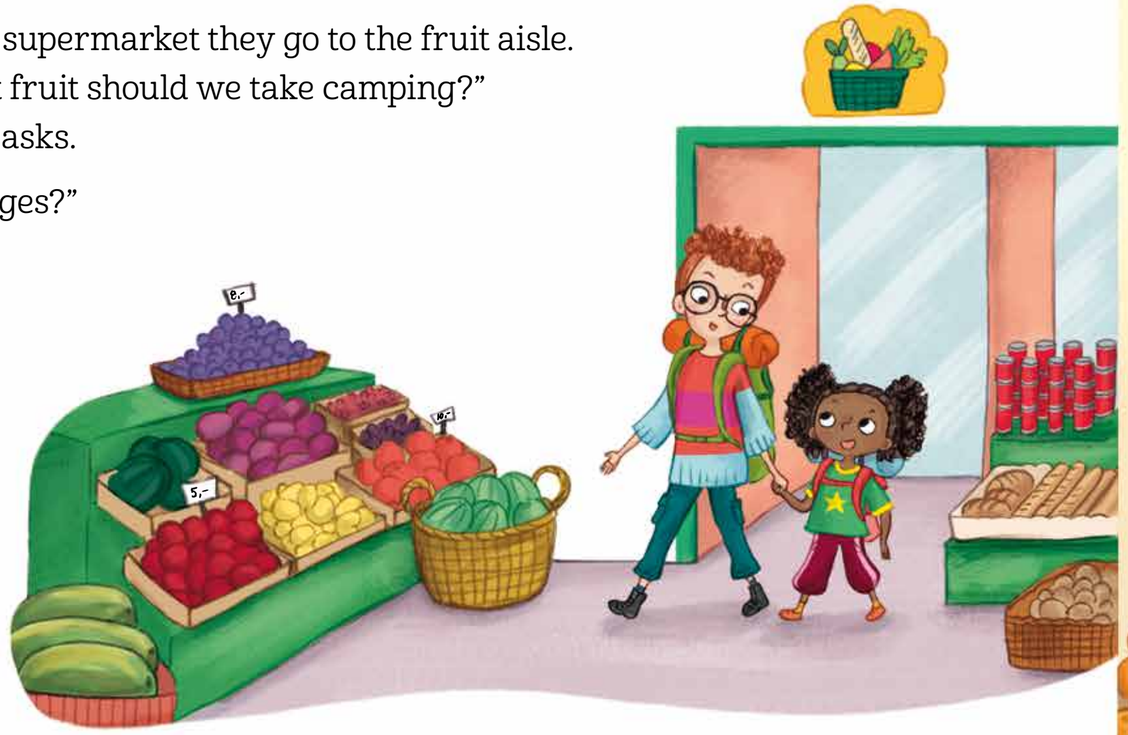


“Yes. I work in astrostatistics, which means I look at the numbers in space.”

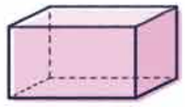
“Cool!” says Aliyah.

In the supermarket they go to the fruit aisle.
"What fruit should we take camping?"
Robin asks.

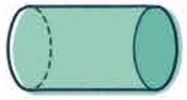
"Oranges?"



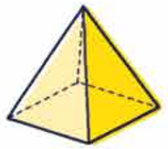
"Hmm, they're tasty, but I don't think they'll fit in our rucksacks! Do you know what their 3D shape is called?"



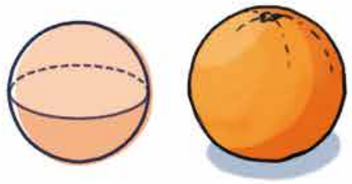
"It's not a cuboid,



or a cylinder,



or a pyramid . . ." Aliyah says.



"It's a sphere!"

Aliyah looks at the different fruit. Most of them are sphere shapes – apples, melons and grapefruit. They're too big and bulky for their bags. Satsumas are spheres too, but they're smaller and can fit in pockets!



"Just one more thing to get now . . ." says Robin. "Marshmallows!"

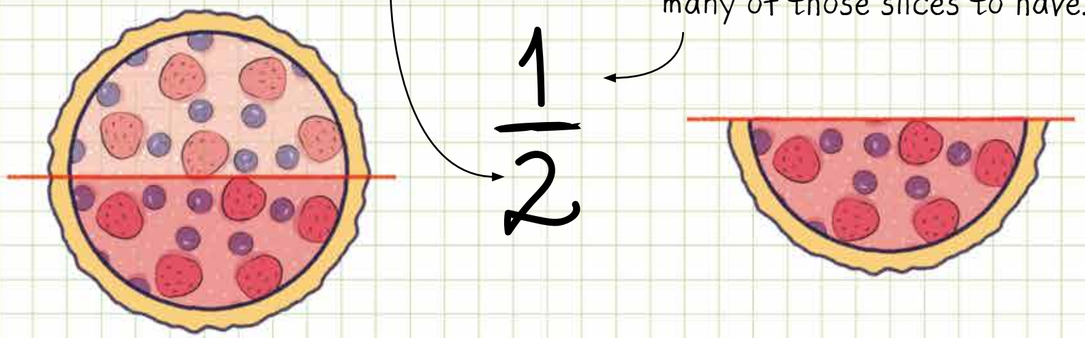
Aliyah spots a sign when they find the marshmallows.
"What does that mean?" she asks.



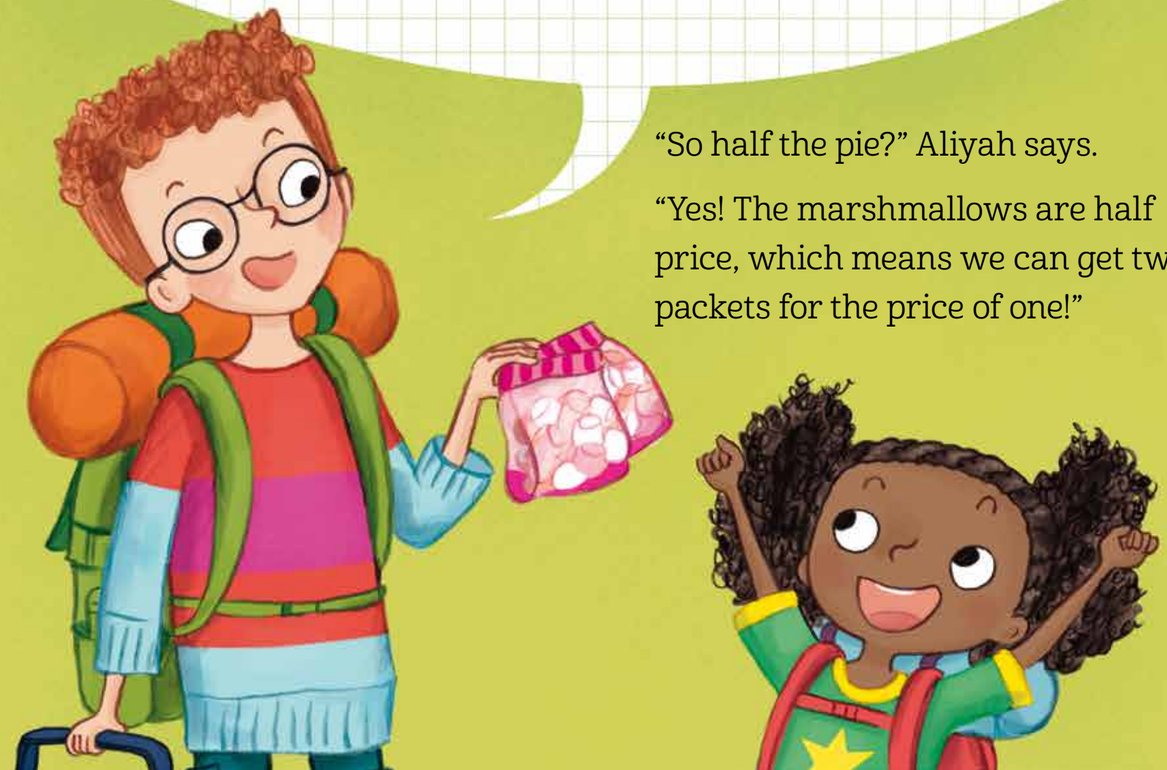
"That's a fraction," says Robin. "A fraction is part of a whole number. It can be a good idea to think of fractions as part of a pie."

The bottom number tells you how many equal slices to slice the pie into,

and the top number tells you how many of those slices to have.



So with 1/2 you slice the pie into two equal pieces and take one of those slices.



"So half the pie?" Aliyah says.

"Yes! The marshmallows are half price, which means we can get two packets for the price of one!"