Keeya's Numbers

by

Desirée De Leon and Greg Wilson

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draft

Once upon a time, a baby and two numbers were born just a few minutes apart.
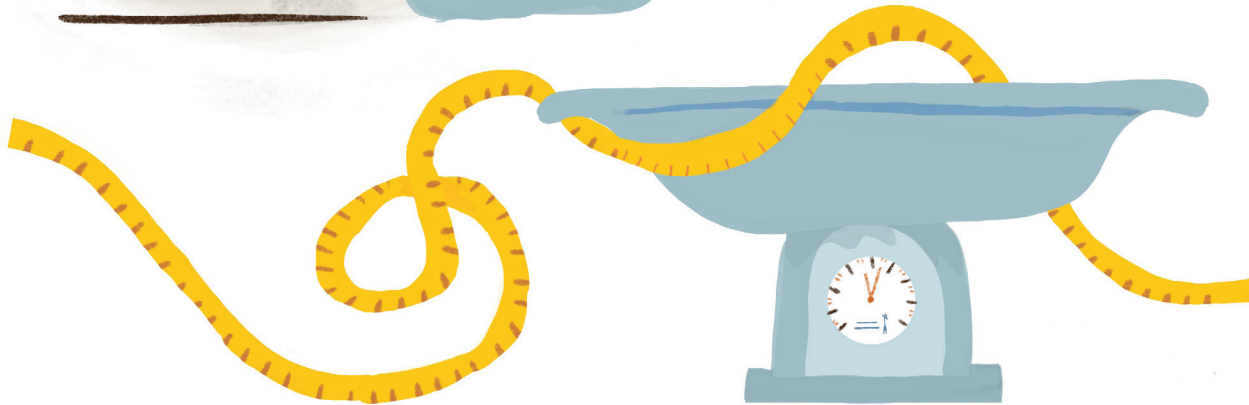"She's beautiful", said the baby's mother. "Let's call her Keeya."

"That's a lovely name," said her father.
"But is she supposed to be so small?"

"Oh bosh, worrisome man," said the midwife. "She looks perfectly normal to me."

She measured and weighed the baby and then gave her back to her mother.

As the baby's parents smiled at her, the midwife went to her office and put an official form in her typewriter. CLACK CLACK CLACK went the keys.

"295 kg" she typed (not noticing her mistake—she should have typed "2.95"), and "41.8 cm", and so Keeya's two numbers were born.

The next day, the midwife mailed the form to the capital.

THE CAPITAL

There, a clerk copied the numbers from that form and a
hundred others into a little program called a spreadsheet…

…where they happily sat side by side in neat rows and columns.

	kg	cm	Name
1	2.98	45.9	SETHUNA
2	3.70	50.1	DINEO
3	4.60	54.6	LETSEGO
4	2.59	47.9	BONTLE
5	3.13	44.4	NEO
6			KEEYA

The clerk chuckled when he read "295 kg", thinking how much babies would eat if they really weighed that much.
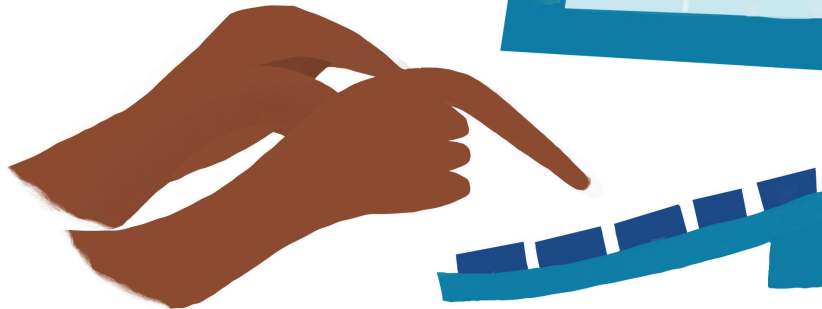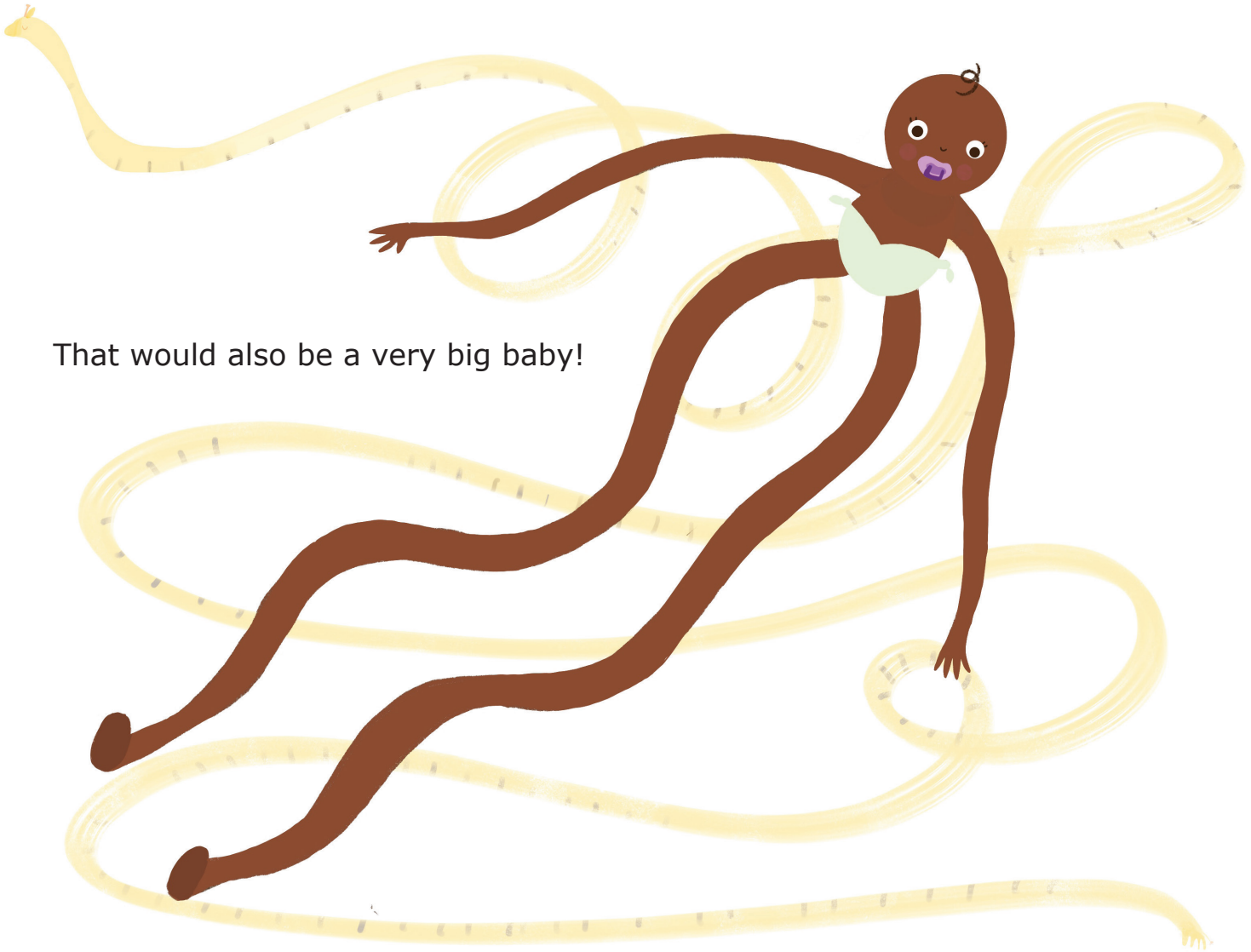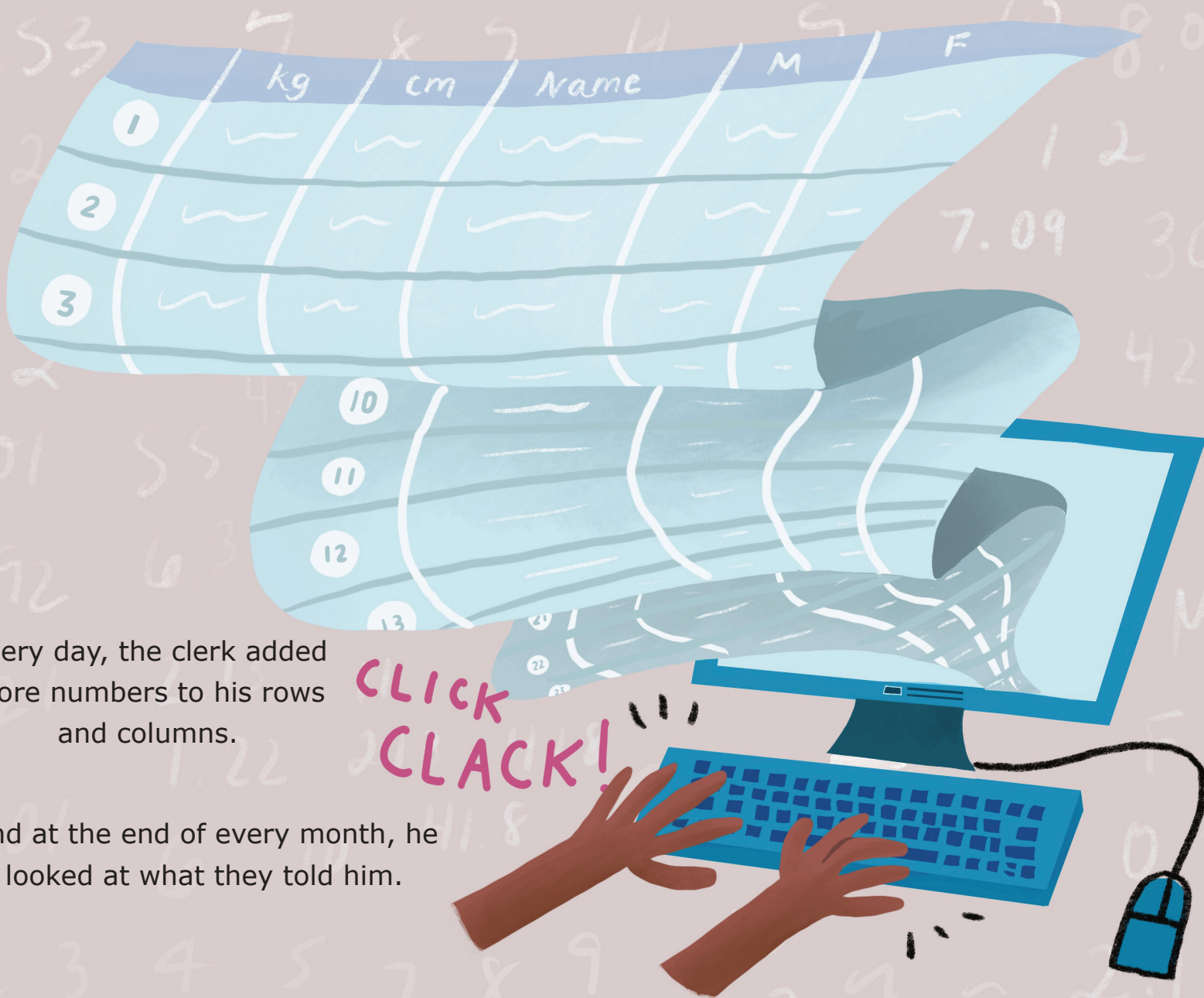
That would be a very big baby!

He fixed the mistake, but he liked his little joke so much that he didn't notice he had typed "418 cm" instead of "41.8".

	kg	cm	Name
1	2.98	45.9	SETHUNA
2	3.70	50.1	DINEO
3	4.60	54.6	LETSEGO
4	2.59	47.9	BONTLE
5	3.13	44.4	NEO
6	2.95	418	KEEYA

That would also be a very big baby!

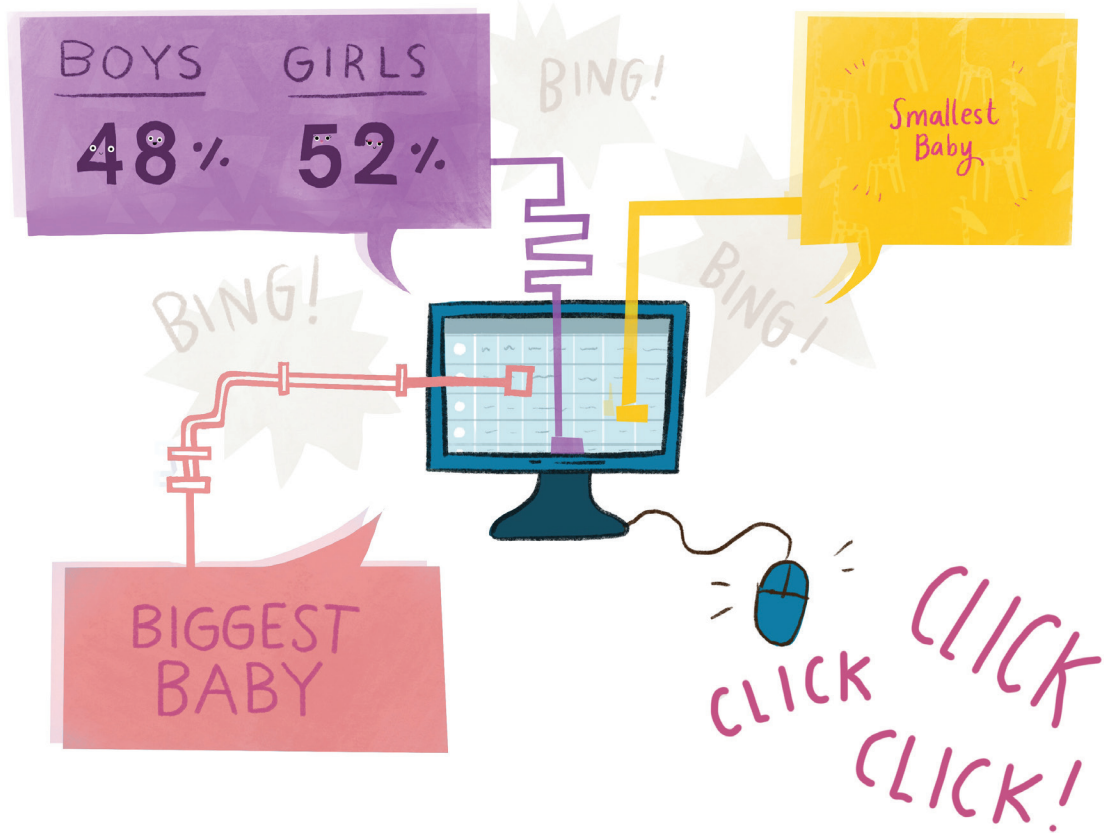|	kg	cm	Name	M	F
1	～	～	～	～	—
2	～	～	～	～	—
3	～	～	～		
10					
11					
12					
13					

Every day, the clerk added
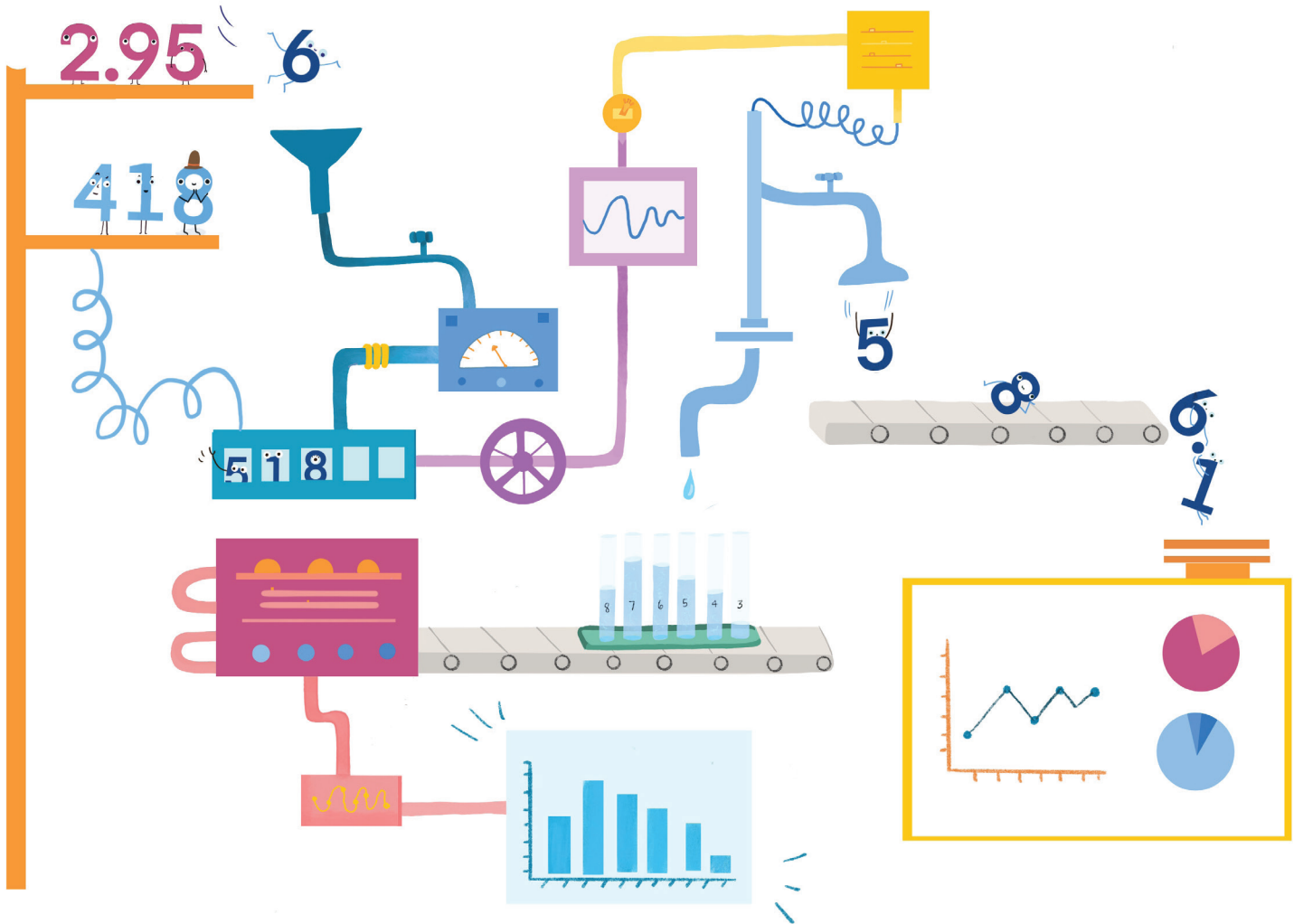more numbers to his rows
and columns.

CLICK
CLACK!

And at the end of every month, he
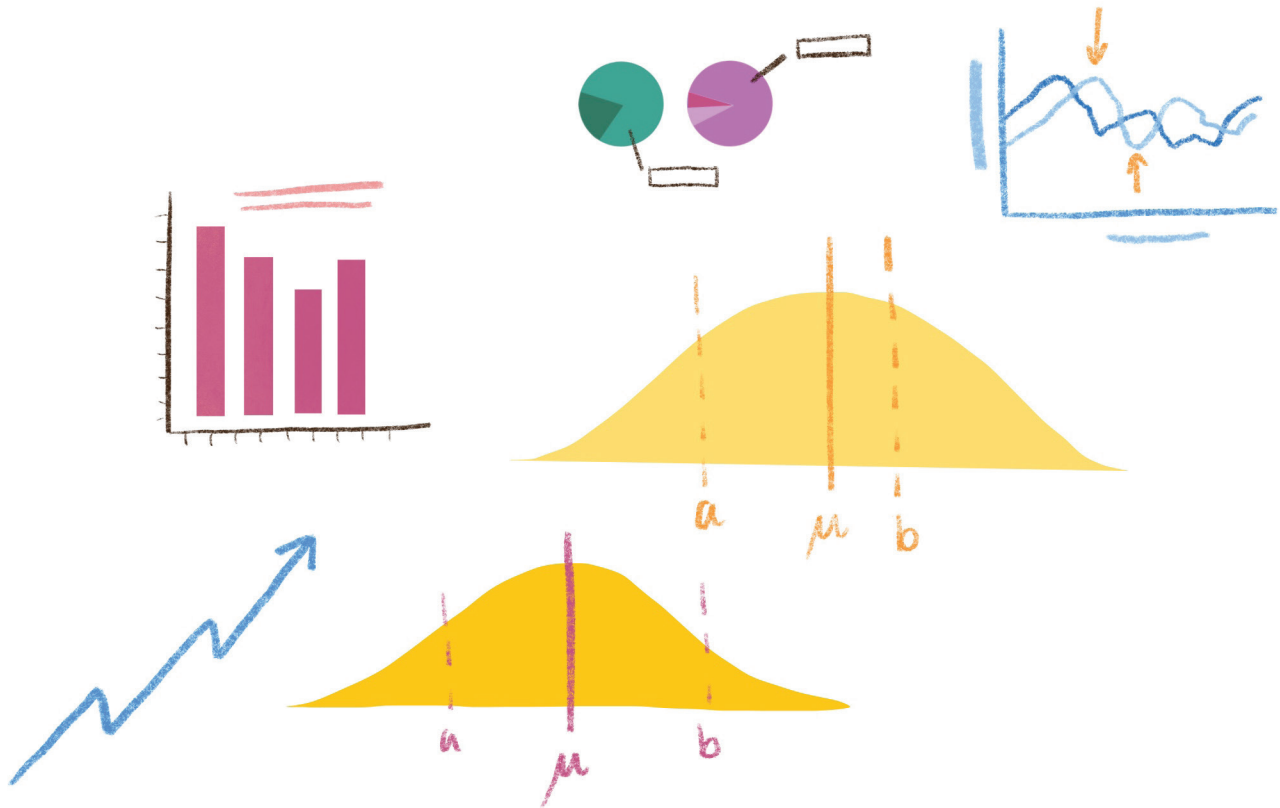looked at what they told him.

CLICK CLICK CLICK went his mouse. *Think think think* went his spreadsheet.

Bing! It made a new number to show how small the smallest baby born that month had been, and how big the biggest, and how many had been boys or girls.

CLICK CLICK CLICK went his mouse again,
and the spreadsheet turned those numbers into pictures…

...to show him if more babies were being born this year than last
and if they were getting bigger or smaller or staying just the same.

But then, disaster!

Four very bad men broke into the clerk's office and stole everything they could
carry, including that clerk's computer!

Keeya's numbers might have been lost forever!

But luckily, the young man who took care of the computers made a copy of everything on them every Sunday night.

When he heard about the theft he got on his bicycle and came to the office

and worked through the night to copy all
those numbers and pictures onto new computers.

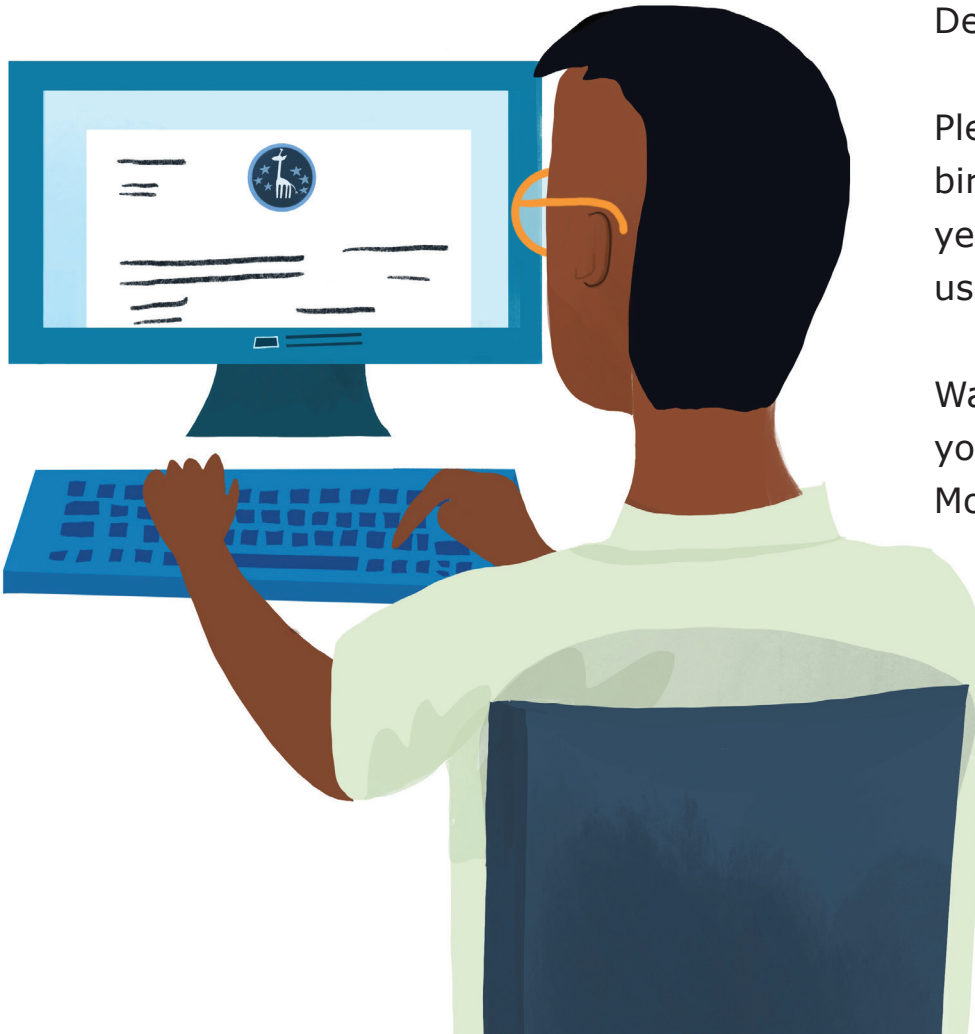A few were lost forever, because those forms had arrived on a Monday,

but the "2.95 kg" and "418 cm" were safe.

"Thank you," the clerk said. And then he thought, *That reminds me of something.*
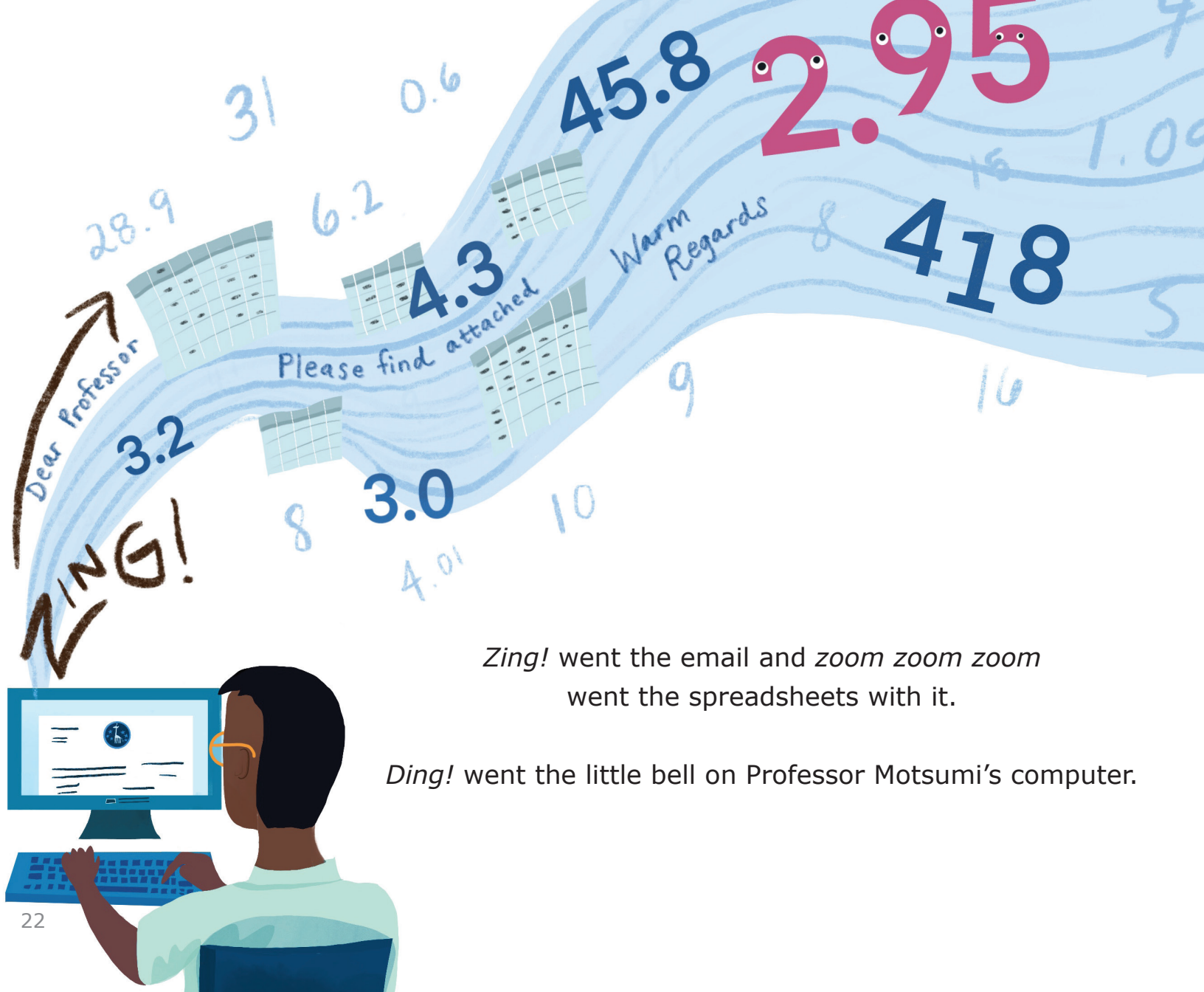
He sat at his new computer and typed an email. CLACK CLACK CLACK went the keys:

Dear Professor Motsumi,

Please find attached the monthly birth statistics for the past ten years. I hope you find them useful.

Warm regards,
your former student
Moeng

45.8 2.95 31 0.6 6.2 28.9 3.2 4.3 8 3.0 4.01 10 9 16 1.09 8 5 9 10 418

Dear Professor

Please find attached

Warm Regards

ZING!

Zing! went the email and *zoom zoom zoom* went the spreadsheets with it.

Ding! went the little bell on Professor Motsumi's computer.

5.2 4.3 6.2 5.5 3.0 28.9 4.01 45.8 3.2 37

"Oh wonderful," she said as she read the message. "These numbers are exactly what I need."

The professor had a lot of numbers: so many that she didn't keep them in spreadsheets any more.

She kept them in a program called a database beside numbers that told her how many midwives there were and how many children had older sisters or younger brothers and a thousand other things.
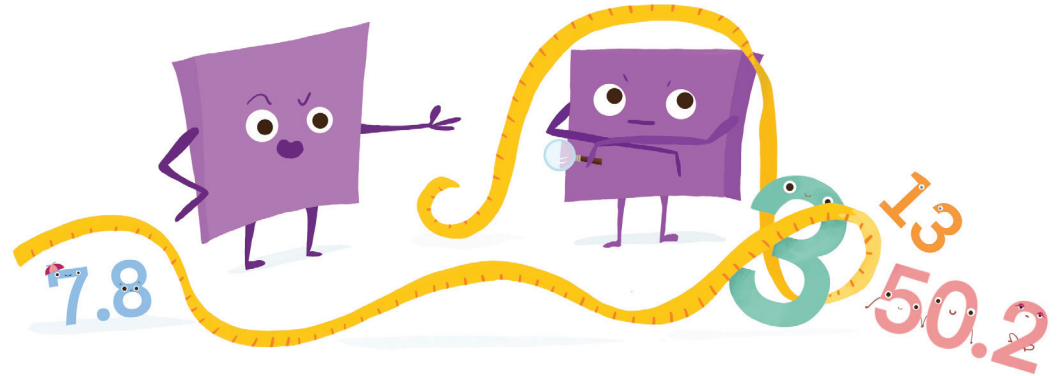
WELCOME to the DATABASE

Her database had so many numbers that she couldn't think about them one by one. Instead, she wrote programs to make sense of them.

Some programs chose numbers…
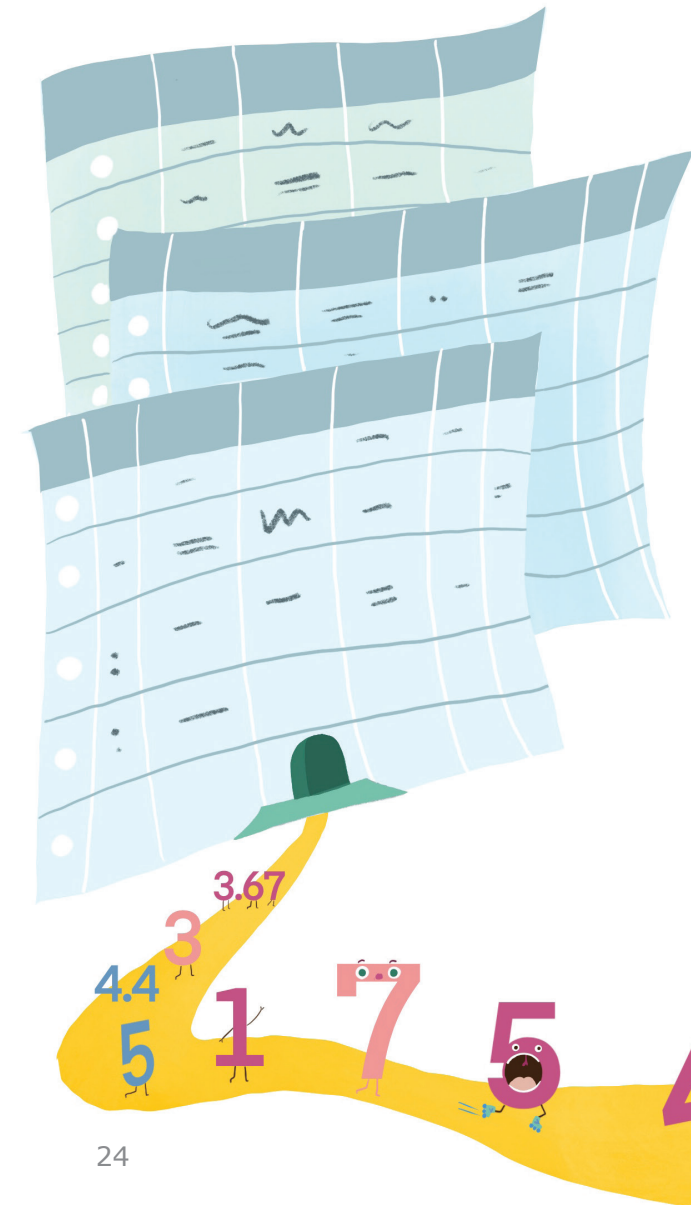
Others sorted them into order...

...squished them together to find totals and averages...

…looked for patterns…

…or turned those patterns into pictures.

If a midwife was there to help, was the baby more likely to be healthy?
How long should they nurse, and when should they be vaccinated?

The professor's programs searched and sorted the numbers
and added them and multiplied them and rearranged them
over and over to find answers to these questions and a hundred more.

One of the professor's programs was very clever.
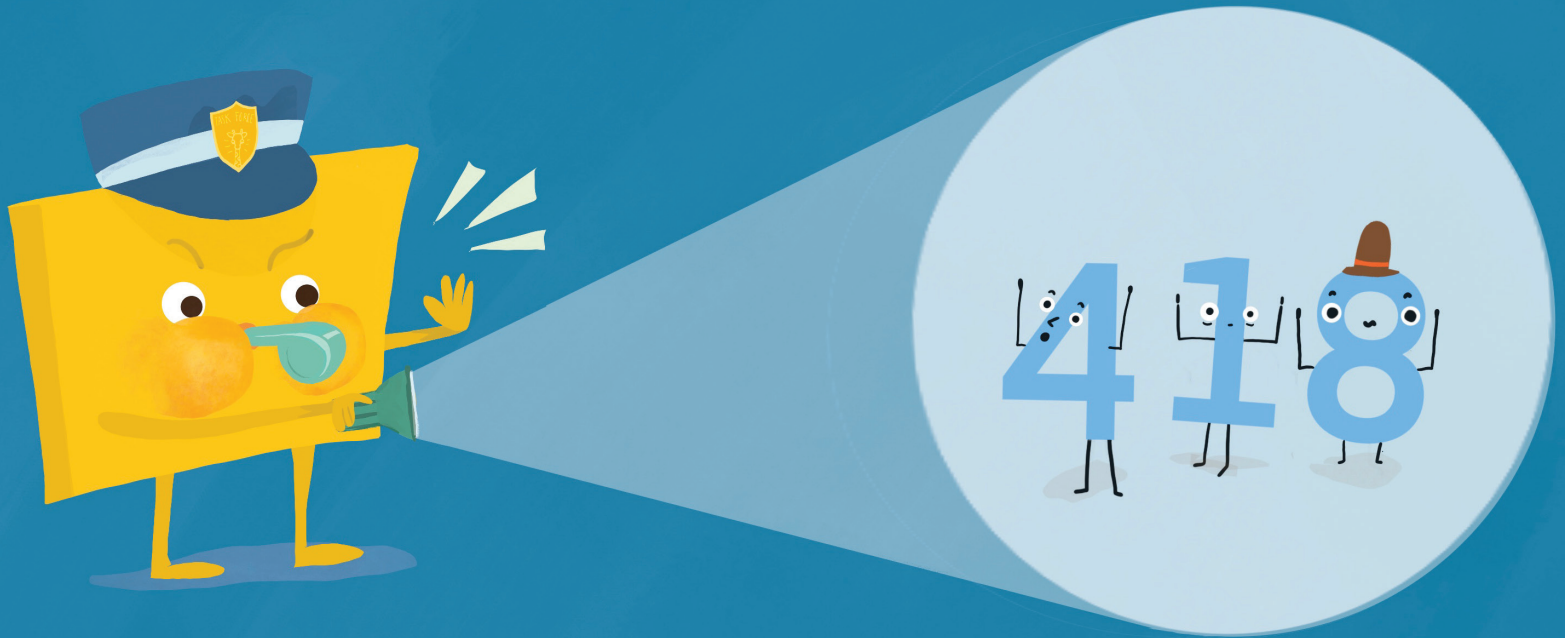
When it saw "418 cm" it said, "That can't be right!" and flashed an alarm.

"Hm," the professor said. Should she guess what the number was supposed to be, or take it out of her database?

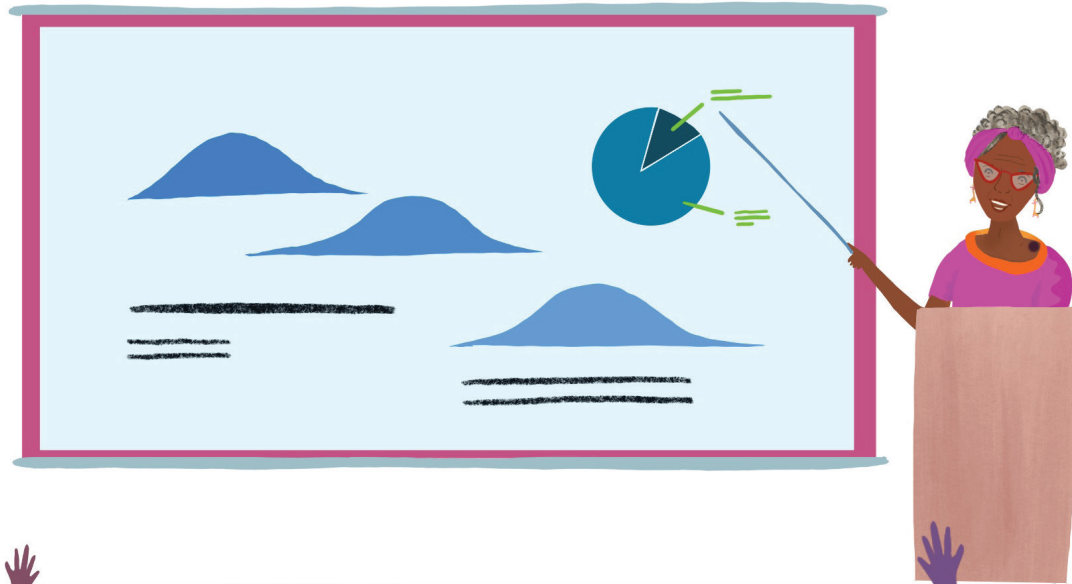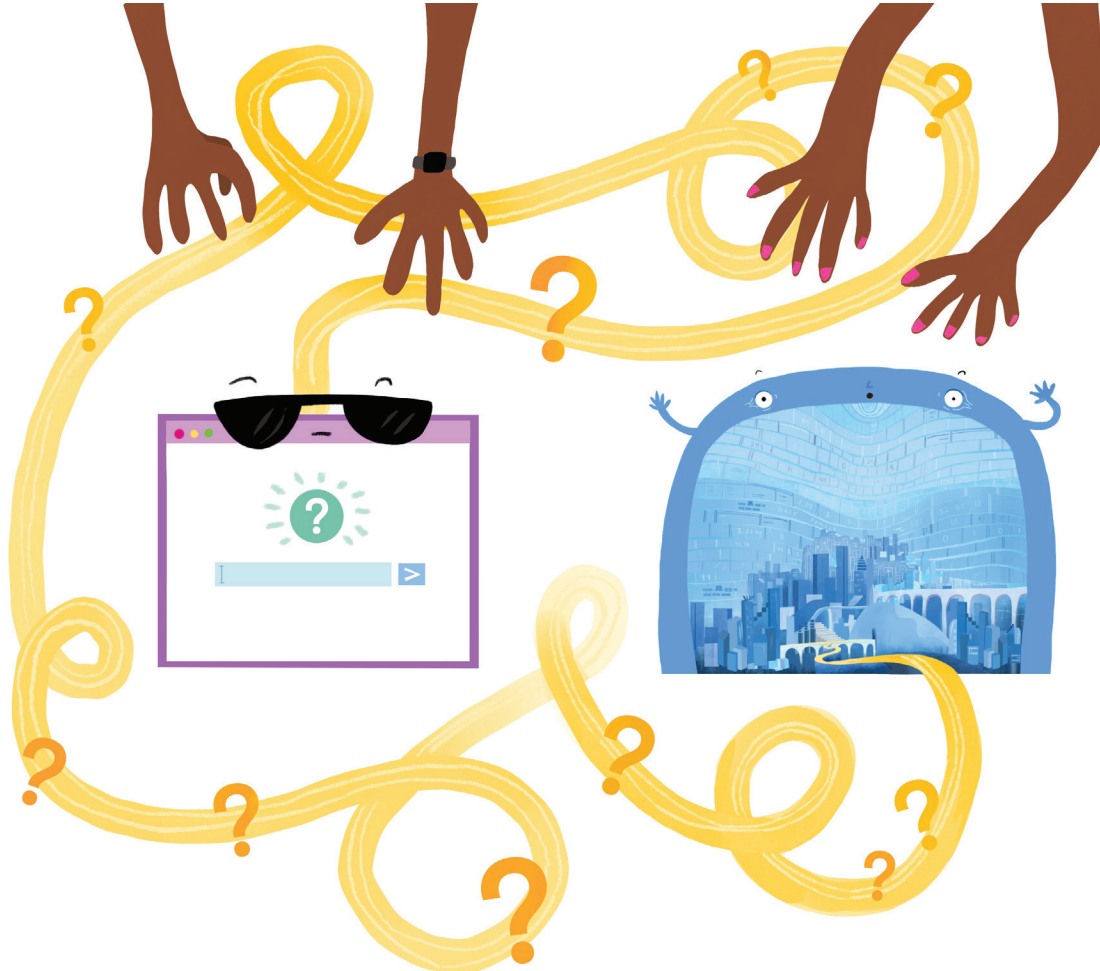She thought for a second and decided to fix it. "41.8" she typed.

The years went by.

The midwife moved to another hospital, the clerk retired, the four very bad men were sent to jail…

…and the professor kept collecting data and asking questions.

She became famous in a quiet little way…

...and her students made a web site to share her data with the world

so that anyone who had a question could use the web site to find an answer.
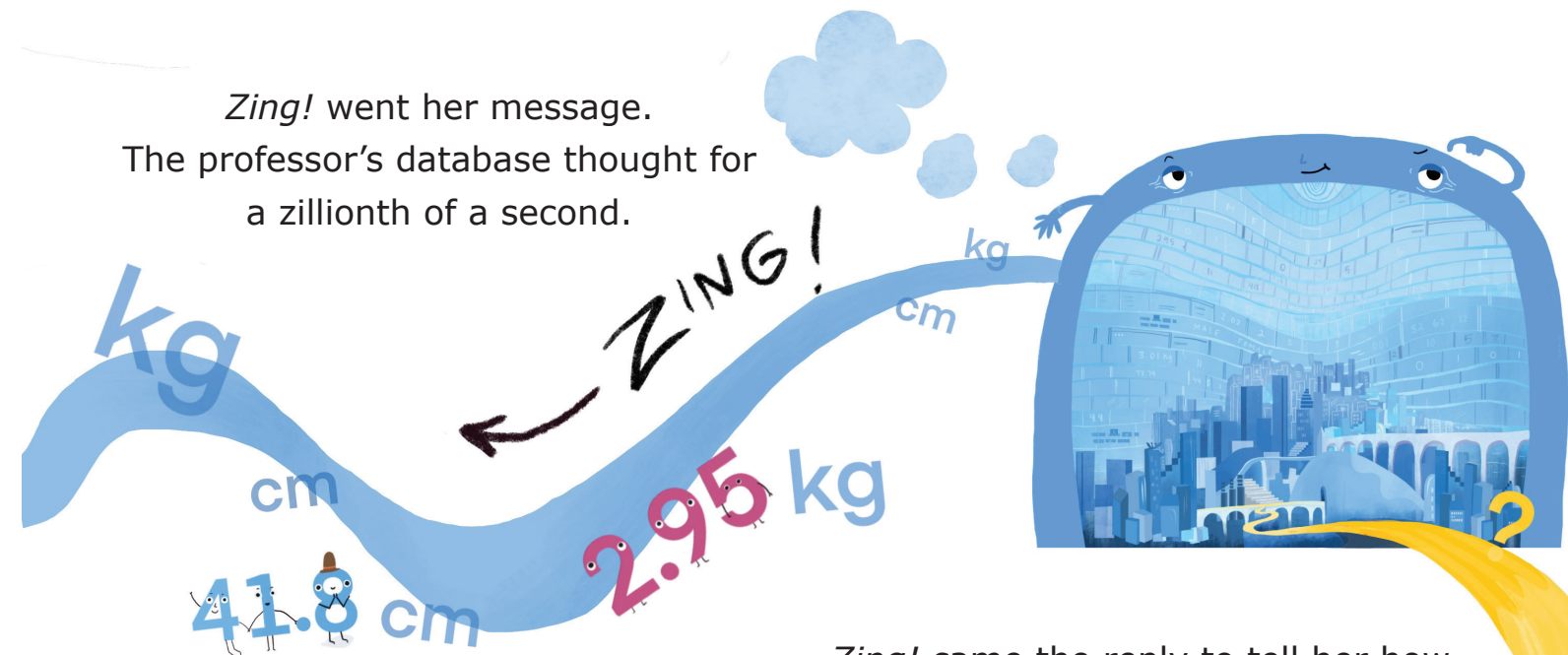
And then, one day, Keeya sat down at the computer in the library at her school.

TICK TICK TICK
She typed in the year she had been born.

CLICK!
went her mouse.

Zing! went her message. The professor's database thought for a zillionth of a second.

ZING!

41.8 cm   2.95 kg

Zing! came the reply to tell her how big baby girls born that year had been.

"Ah ha!" Keeya said, and then, "Sorry!" as the librarian shushed her. She clicked with the mouse to copy the answer, then opened her email and typed a message to her father, who had never stopped worrying.

Dear ntate,

You see? I WAS a normal size!

💖,
Keeya

Once upon a time a little girl was born.
This is the story of the numbers that were born with her:
where they came from, how they moved from place to place,
who used them and fixed them and how they met other numbers
until finally, one day, they were called home.

Desirée De Leon is a neuroscientist and former middle school teacher. She has always dreamed of illustrating a children's book and now she has.

Greg Wilson is a programmer, teacher, and writer. This is his fourth (or maybe fifth) book for children.