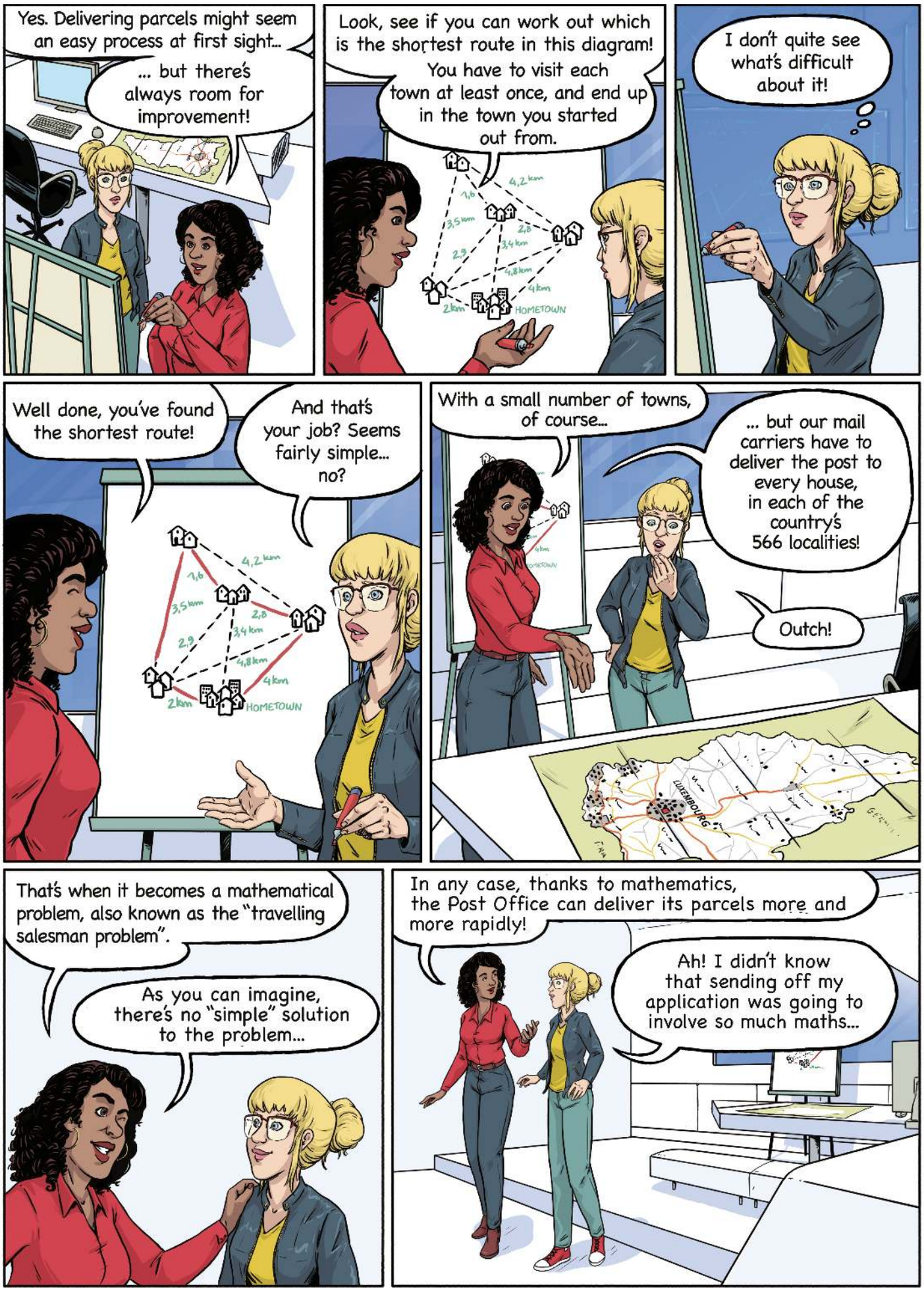
Hi, I'd like to send off my application for the Bachelor programme in mathematics of the University of Luxembourg...
No problem, we'll send it off today!
THIS MORNING AT THE POST OFFICE IN LUXEMBOURG
How do you manage to keep on top of all these deliveries so they arrive on time?
Well, it's really just a maths problem!
Really? What do you mean?
Let me introduce you to one of my colleagues. She's a mathematician.
Coming?
Uh...
Okay!
Hi Liz! Here's a future mathematician who'd like to know a bit more about your work.
Come on in!
My job here is to optimize the handling and delivery processes.
"Optimize"?


Yes. Delivering parcels might seem an easy process at first sight...
... but there's always room for improvement!
Look, see if you can work out which is the shortest route in this diagram!
You have to visit each town at least once, and end up in the town you started out from.
4,2 km
1,6
3,5 km
2,8
3,4 km
2,9
4,8 km
4 km
2 km
HOMETOWN
I don't quite see what's difficult about it!
Well done, you've found the shortest route!
And that's your job? Seems fairly simple... no?
With a small number of towns, of course...
... but our mail carriers have to deliver the post to every house, in each of the country's 566 localities!
Outch!
LUXEMBOURG
That's when it becomes a mathematical problem, also known as the "travelling salesman problem".
As you can imagine, there's no "simple" solution to the problem...
In any case, thanks to mathematics, the Post Office can deliver its parcels more and more rapidly!
Ah! I didn't know that sending off my application was going to involve so much maths...