

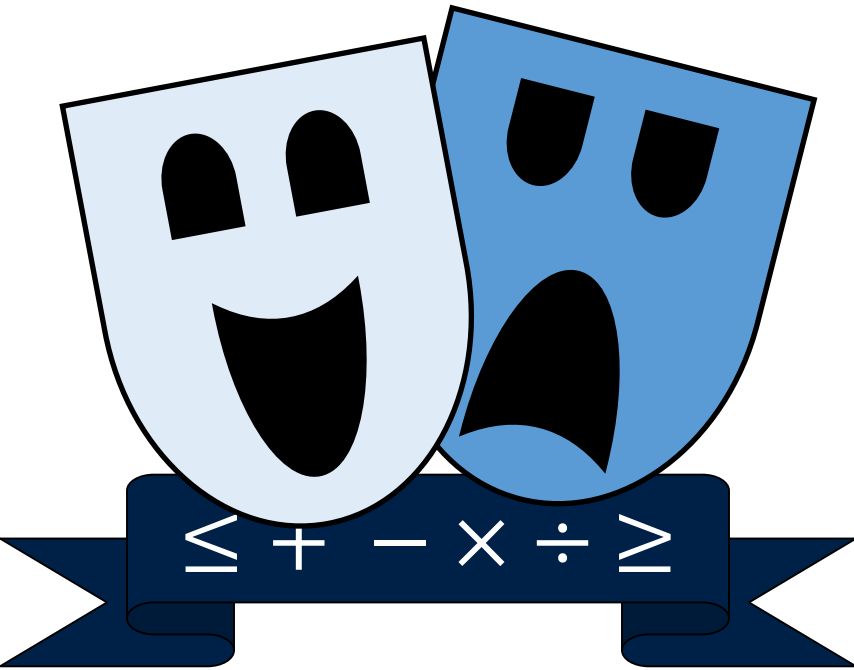
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Mathedramatics: Drama in the maths classroom

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Session aims

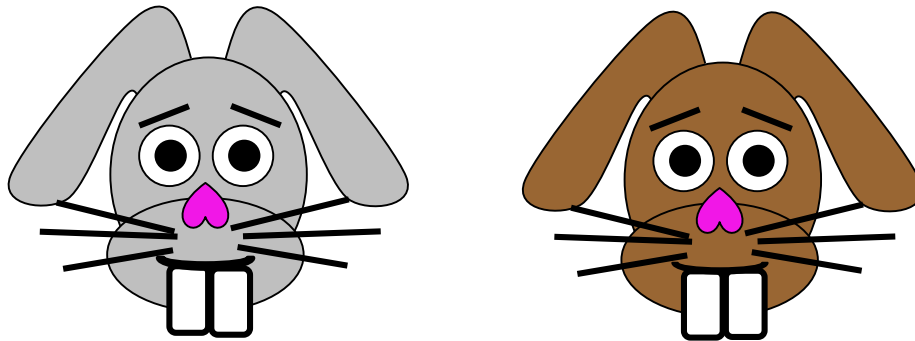
- To explore how games that students might know from drama lessons can be used in maths
- To experiment with role-play and storytelling as possible ways to enhance maths lessons
- To be silly and have some fun

Stop, Hop, Zap!

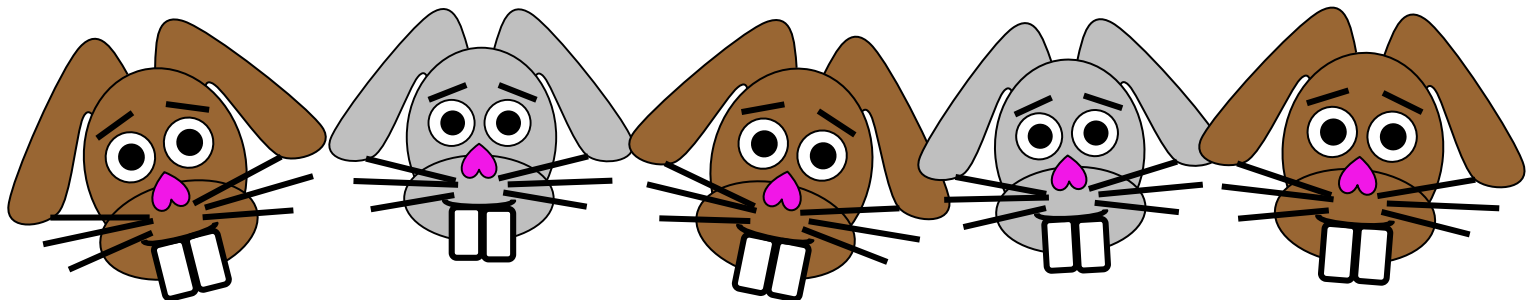
- Stop: Even numbers
- Hop: Prime numbers
- Zap: Multiples of 3

A bunny story...

As a child I was given two rabbits.

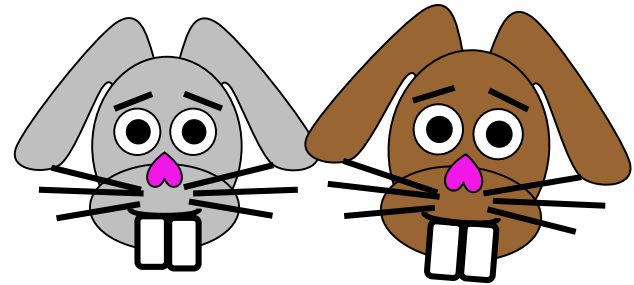


Very quickly they started to breed like, well, rabbits...



A bunny story...

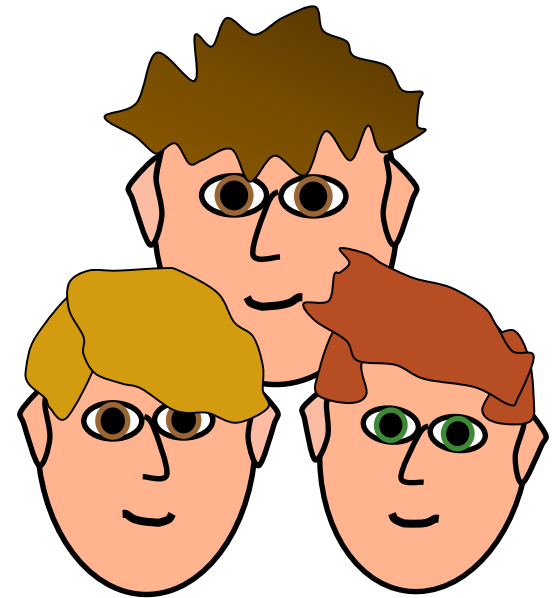
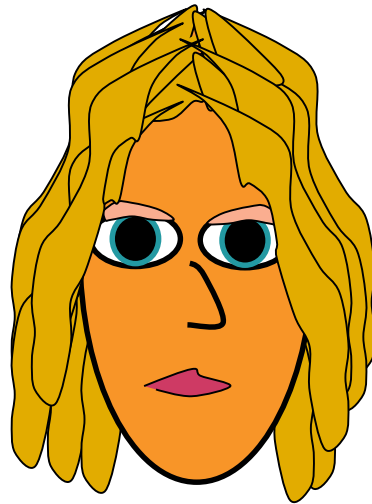
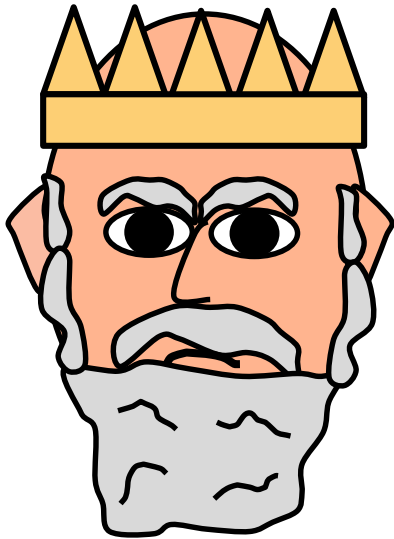
I decided to start selling them, and soon business was booming.



I soon realised that I needed a bigger hutch, so went to see the 'bank manager' (a.k.a. my dad) to negotiate a loan.

But he wanted to be convinced, and demanded to see some graphs...

The Cruel King of Equatia



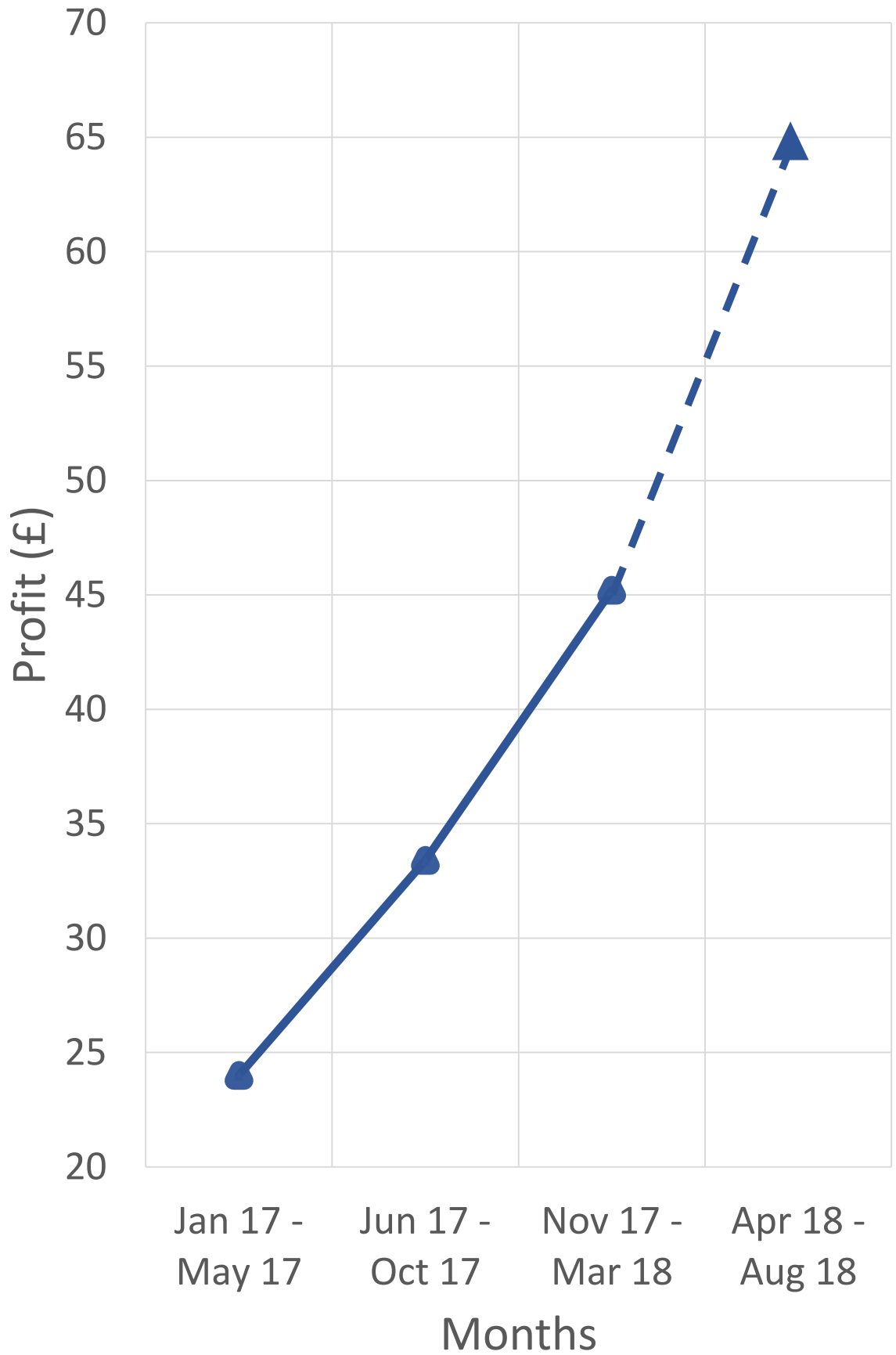
About MEI

- Registered charity committed to improving mathematics education
- Independent UK curriculum development body
- We offer continuing professional development courses, provide specialist tuition for students and work with employers to enhance mathematical skills in the workplace
- We also pioneer the development of innovative teaching and learning resources

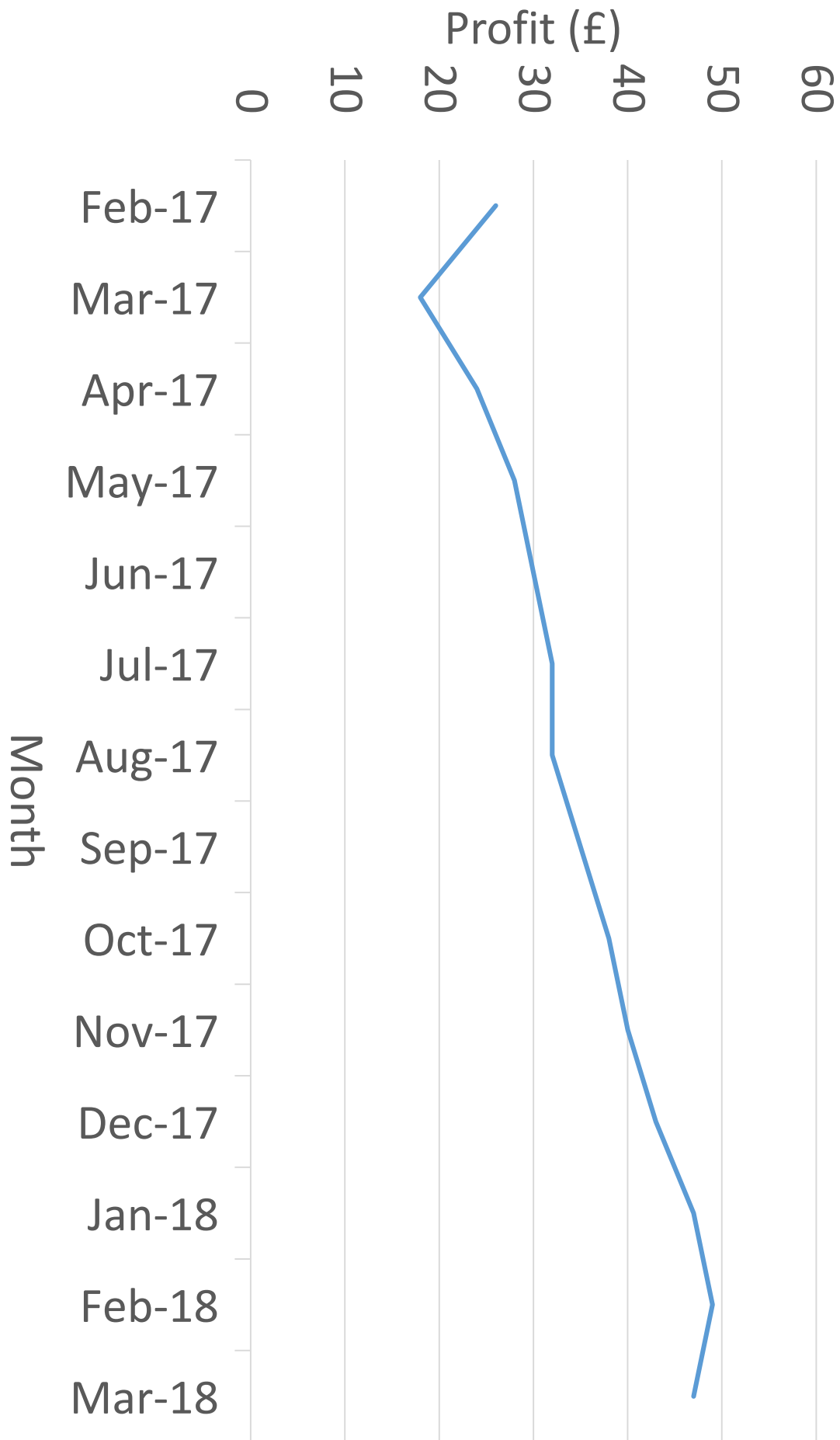
Month	Profit (£)
Jan-17	24
Feb-17	26
Mar-17	18
Apr-17	24
May-17	28
Jun-17	30
Jul-17	32
Aug-17	32
Sep-17	35
Oct-17	38
Nov-17	40
Dec-17	43
Jan-18	47
Feb-18	49
Mar-18	47

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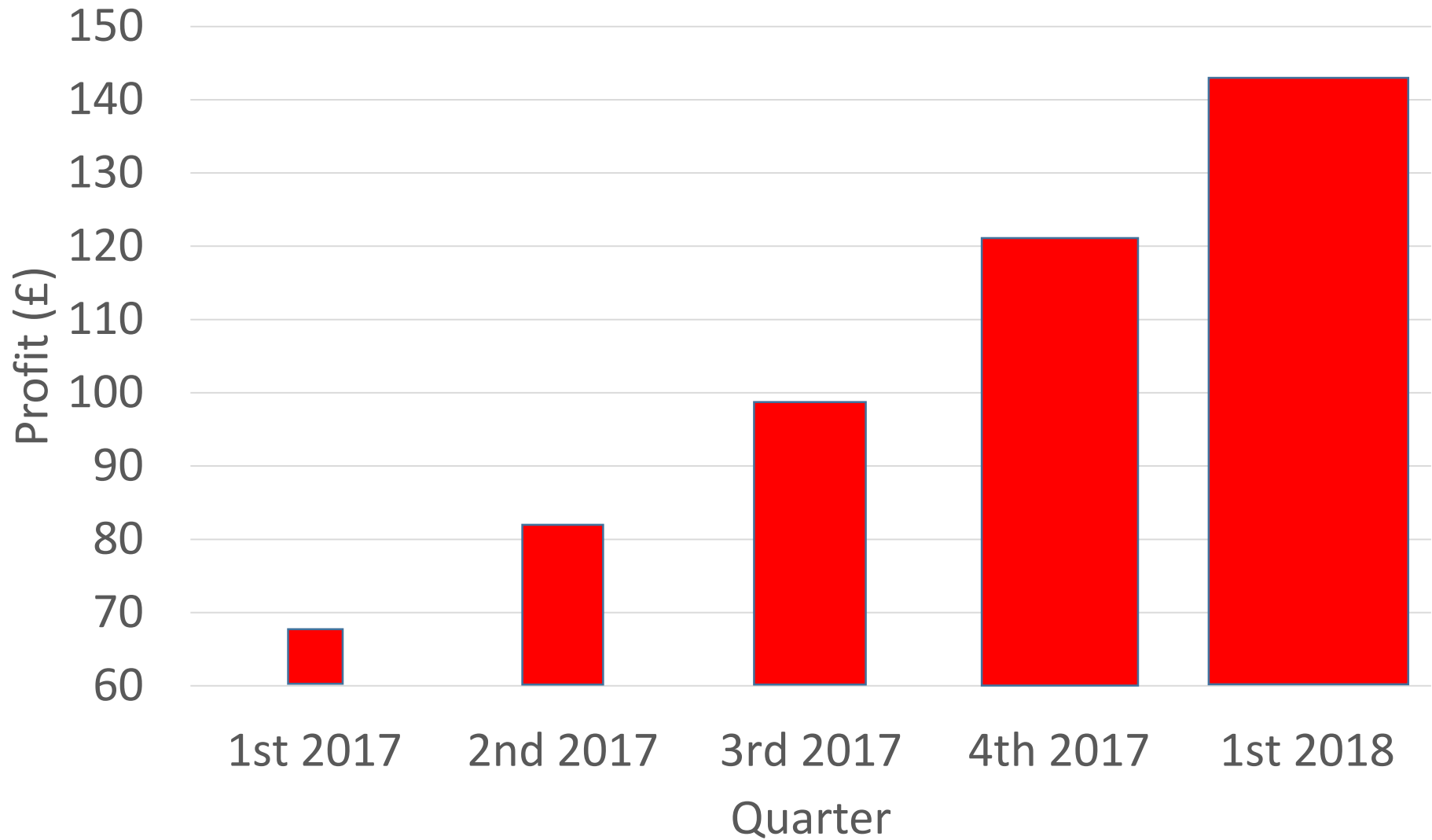
Average rabbit sales



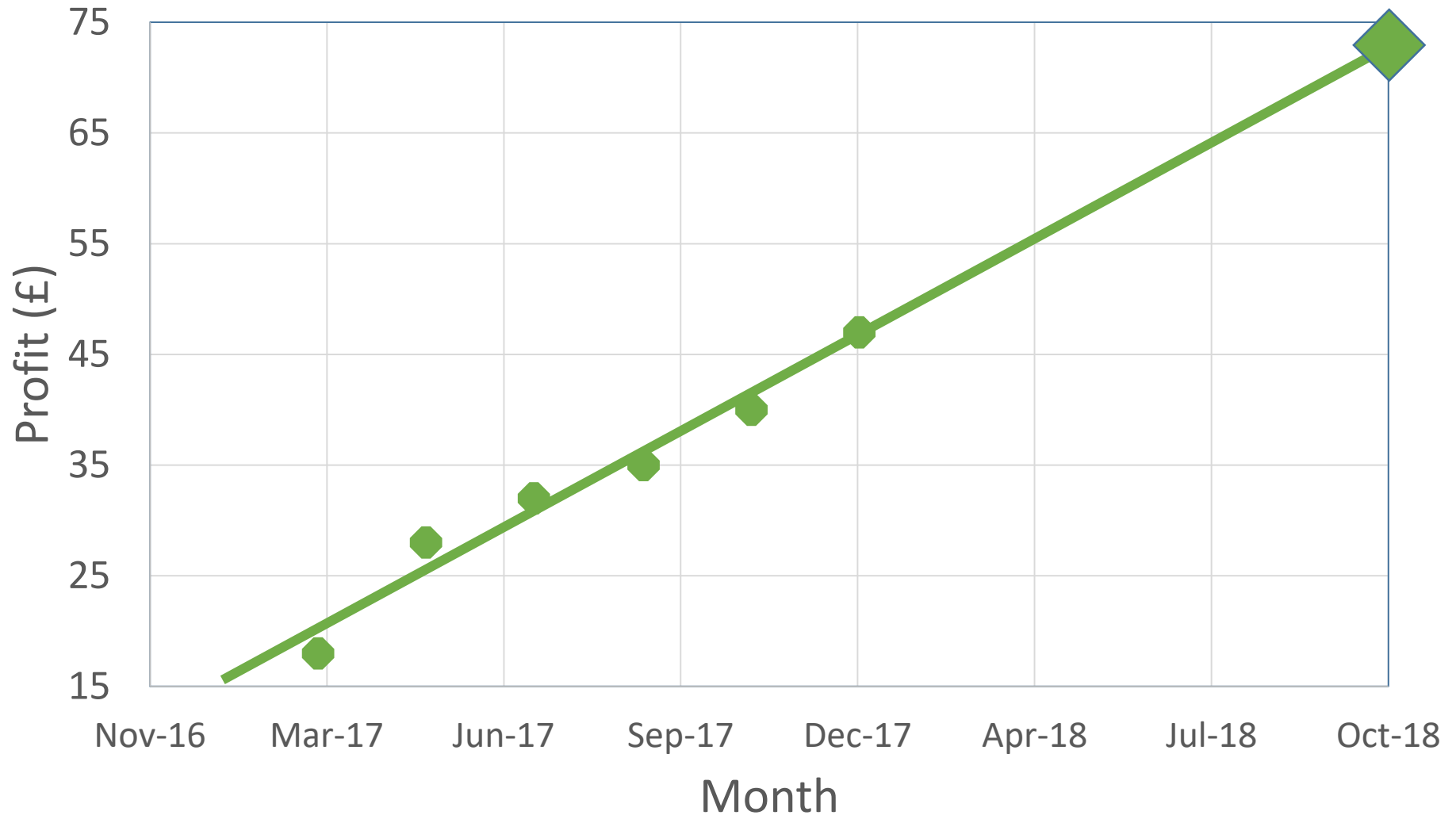
Rabbit business profits



Rabbit business quarterly sales



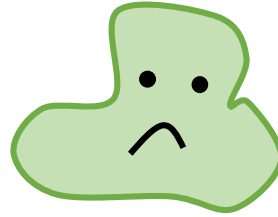
Projected rabbit sales



Mathematical story telling

Arnold the amoeba

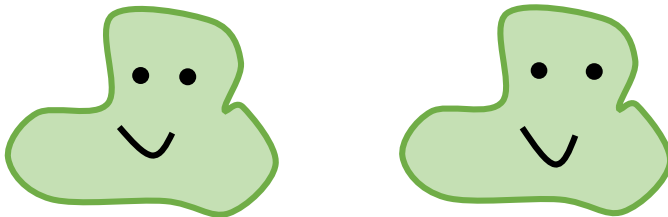
Arnold the amoeba is sad because he is lonely.



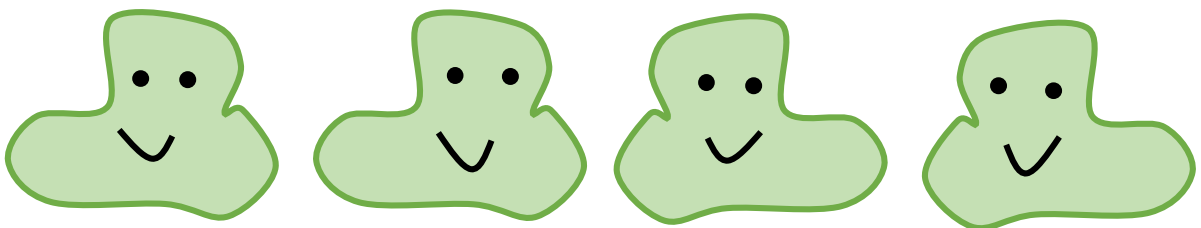
One day things get even worse as he wakes up to find that he has split in two!



But then an incredible thing happens, and each half of Arnold forms a new amoeba! They spend the rest of the day playing happily together.



The next day both the amoebas split in half to form new amoebas – there are now four in total!



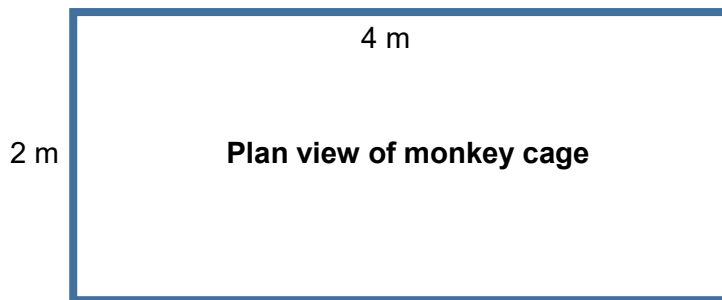
How many days will it take for Arnold to have a *million* friends?

Mathematical story telling

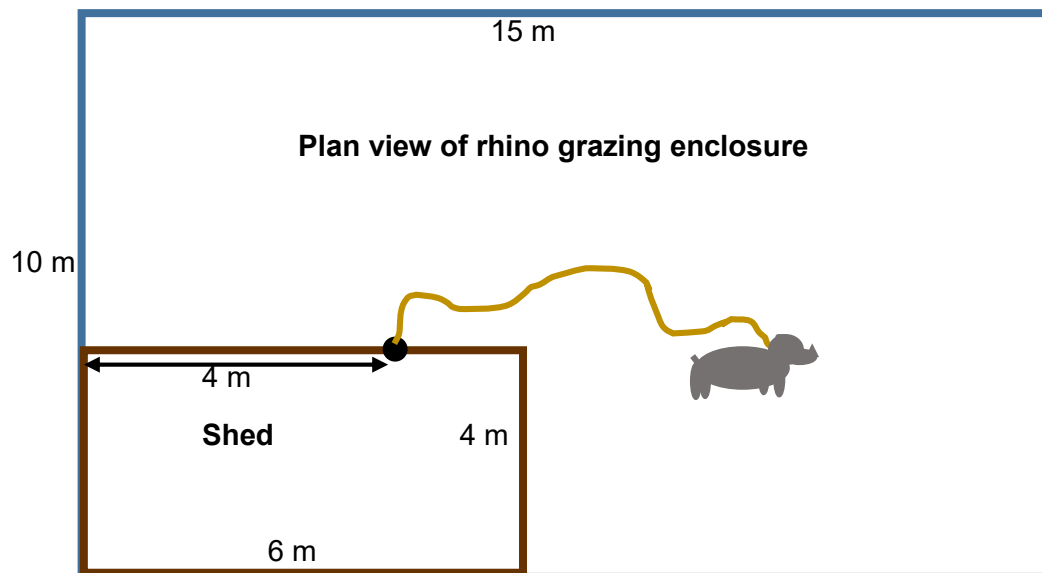
Zoe the zoo-keeper

Zoe the zoo-keeper has to ensure that all her animals can roam as freely as possible, but also that the zoo visitors stay safe.

For example, the vicious monkey will swipe at unsuspecting children through his cage bars. He has a reach of 40 cm and Zoe needs to fence off a safe viewing distance that is as close as possible. What shape will the safety fence be?



Likewise, when her rhino is out for feeding she needs to tether it with a 5 m rope so that it does not wander too far. What shape is the region of grass that it can reach?



What other scenarios will Zoe encounter on her morning rounds?

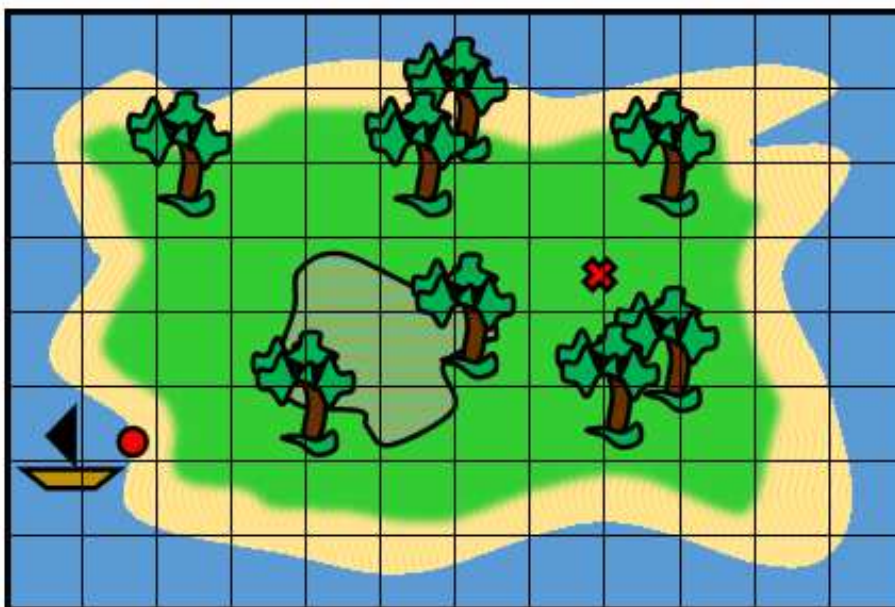
Mathematical story telling

Pearl the pirate

Pearl the pirate has buried her treasure. Unfortunately her parrot, Mr Feathers, has a habit of calling out where her maps are kept. As a result, her sworn enemy Mauvebeard keeps uncovering her stash.



Pearl knows that Mauvebeard is hopeless at working out angles, so decides to replace her map with a list of bearings and distances.



Scale 1:200

Pearl lists her directions as starting from the boat landing point, indicated by the red dot. Her route must avoid the swamp and any trees, but be as confusing as possible to Mauvebeard.

X marks the spot! Can you plan Pearl a good route?