

# Week Four Maths

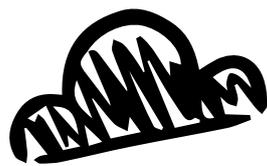
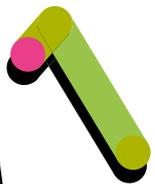
Maths is a subject you've learnt about all through primary school so far, and you'll continue to investigate at secondary school too.

Do you know about all the different topics you could learn about at university? (You might spot some topics below that you are currently learning about, not all of them within maths...) Can you match the subject to the definition?



1. The study of the collection, organisation and interpretation of data.
2. The study of the principles and use of computers.
3. The study of mathematical symbols and the rules for manipulating these symbols.
4. The study of shape, size, relative position of figures, and the properties of space.
5. The study of how likely an event is to occur or how likely it is that something is true.
6. The study of strategy.
7. The study of the production, distribution, and consumption of goods and services
8. The application of Mathematics to making better decisions.
9. The practice and study of techniques for secure communication.

- A. Cryptography
- B. Operations Research
- C. Economics
- D. Probability
- E. Geometry
- F. Statistics
- G. Algebra
- H. Computer Science
- I. Game Theory



## Is that really research?

Researchers in Maths choose questions they're fascinated by and try to find out the answers.

**Do you think the following questions have been used for real research or not?**

**Write True or False next to these possible topics.**

Can you detect a cat walking across a keyboard?

What's the total surface area of Indian elephants?

How far can penguins defecate?

How many photos do you need to take to make sure no one in the group has their eyes closed?

Can you predict when a cow will stand up or sit down?

**What do you think the answers to these questions are? How do you think we could find out the answers?**

**We will find out the answers by watching this week's video!**

### IN YOUR OWN TIME:

If you were a researcher in Maths, what topic would you like to find out more about? List some ideas below.

What do you think you would need to answer these questions (a computer, lots of people)?  
Could you answer any of these questions at home?

**When you have finished, we would love to read your work! Send us a picture or a copy on our website <https://bit.ly/TheBigExploration!>**