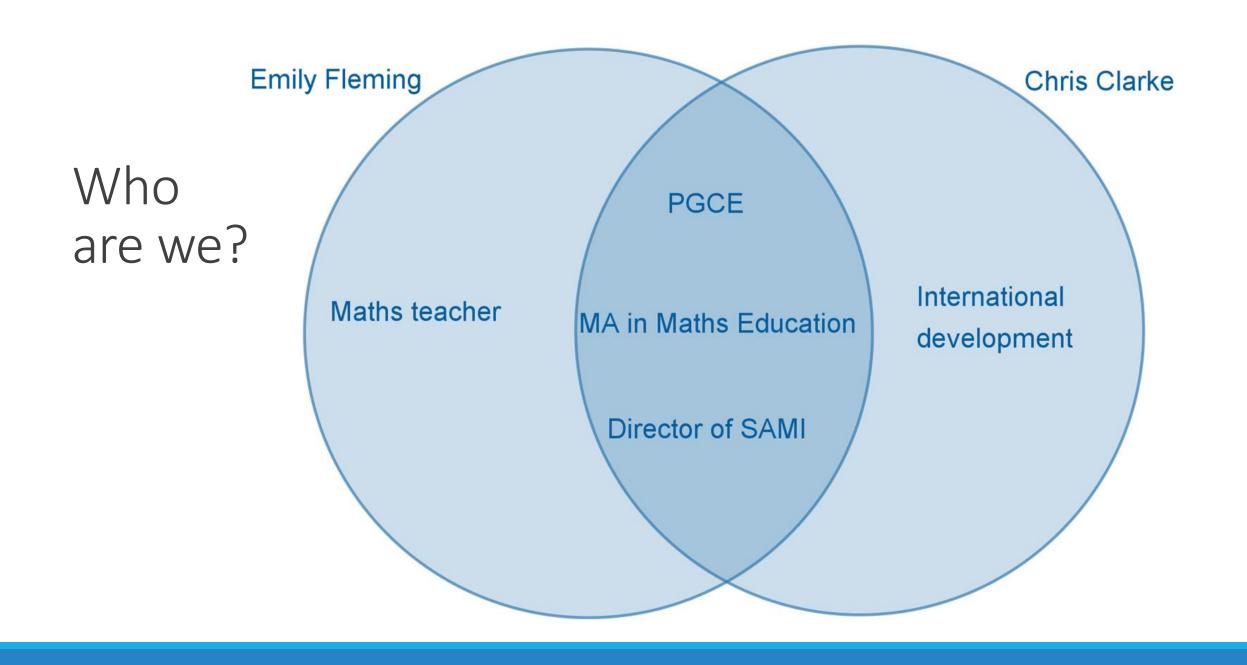


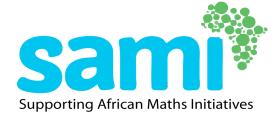
INSPIRING IDEAS FOR MATHS CLUBS

https://samicharity.co.uk/bcme

Plan for session

- Do some maths!
- Experiences working Kenya
- What this could mean in your school
- Do some more maths!
- Takeaways





Supporting African Maths Initiatives

Access to and quality of mathematics education in Africa.

We lend our funding and expertise to local grassroots initiatives

UK based charity, founded in 2013 initially to support a Kenyan NGO (AMI) but with broader long term aims.

Example projects

MATHS CAMPS

Week-long camps of games, puzzles and activities to inspire students outside the curriculum



DIGITAL COMMUNITIES INITIATIVE

Using technology to improve livelihoods throughout entire communities



MATHS CLUBS

Student-led activities to run in schools to promote a joy of maths throughout the year



AFRICAN DATA INITIATIVE

Open software being developed in Africa to help people make better use of data



Maths Camps and Clubs in Africa

70 Schools

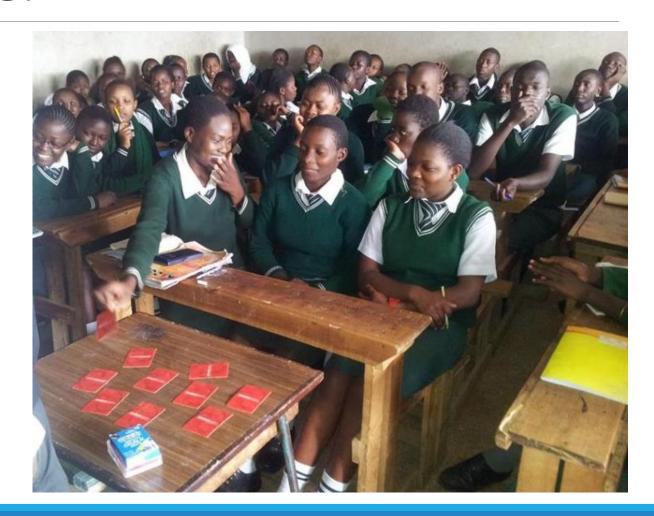
8 Universities

5 Countries

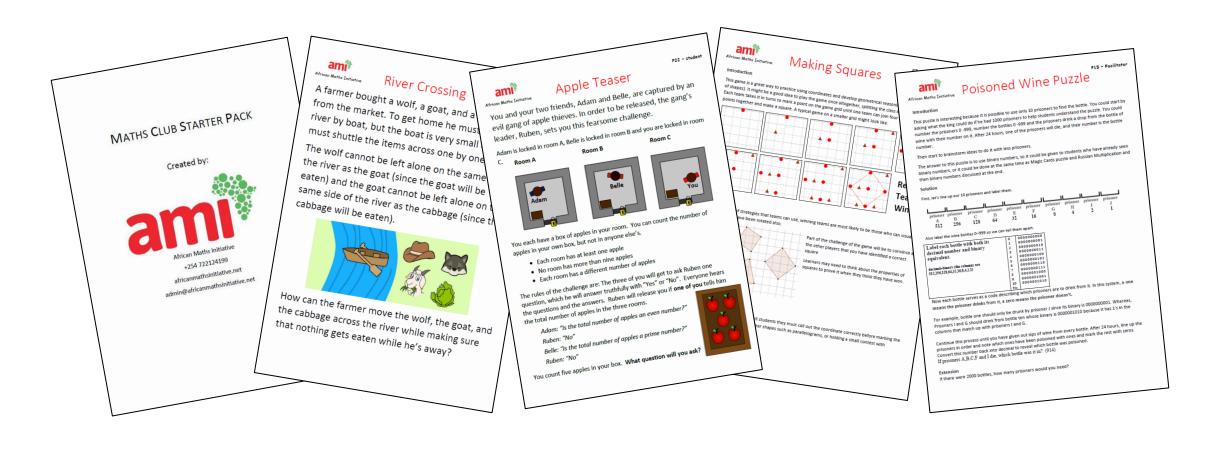


Maths Club Model

- Student Led
- Extra Curricular
- Inclusive
- Supported by local team



Maths Clubs Pack

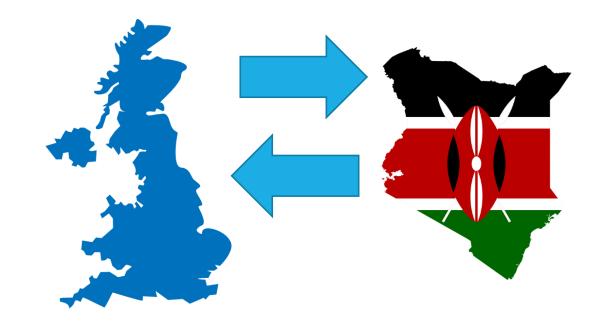


Maths Club in the UK

Working with inspiring people from different countries

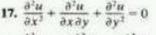
Now run a successful club at own school

lycee.samicharity.co.uk



Time for some more maths!

I'm still waiting for the day that I will actually use



17.
$$\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial x \partial y} + \frac{\partial^2 u}{\partial y^2} = 0$$
 18.
$$3\frac{\partial^2 u}{\partial x^2} + 5\frac{\partial^2 u}{\partial x \partial y} + \frac{\partial^2 u}{\partial y^2} = 0$$

19.
$$\frac{\partial^2 u}{\partial x^2} + 6 \frac{\partial^2 u}{\partial x \partial y} + 9 \frac{\partial^2 u}{\partial y^2} = 0$$
20. $\frac{\partial^2 u}{\partial x^2} - \frac{\partial^2 u}{\partial x \partial y} - 3 \frac{\partial^2 u}{\partial y^2} = 0$

20.
$$\frac{\partial^2 u}{\partial x^2} - \frac{\partial^2 u}{\partial x \partial y} - 3 \frac{\partial^2 u}{\partial y^2} = 0$$

21.
$$\frac{\partial^2 u}{\partial x^2} = 9 \frac{\partial^2 u}{\partial x \partial y}$$

22.
$$\frac{\partial^2 u}{\partial x \partial y} - \frac{\partial^2 u}{\partial y^2} + 2 \frac{\partial u}{\partial x} = 0$$

23.
$$\frac{\partial^2 u}{\partial x^2} + 2 \frac{\partial^2 u}{\partial x \partial y} + \frac{\partial^2 u}{\partial y^2} + \frac{\partial u}{\partial x} - 6 \frac{\partial u}{\partial y} = 0$$

$$24. \ \frac{\partial^3 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} = u$$

25.
$$a^2 \frac{\partial^2 u}{\partial x^2} = \frac{\partial^2 u}{\partial t^2}$$

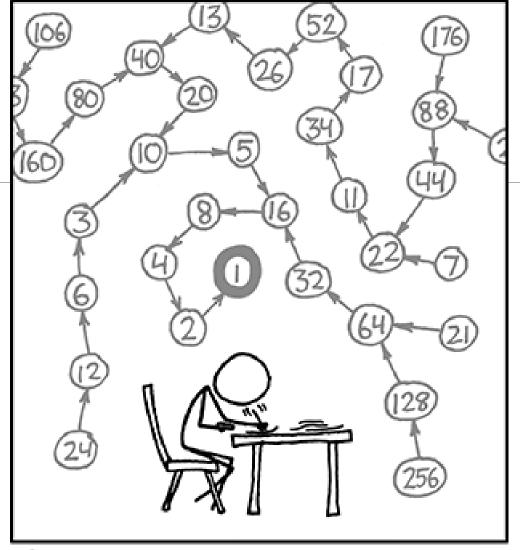
$$26. \ k \frac{\partial^2 u}{\partial x^2} = \frac{\partial u}{\partial t}, \quad k > 0$$

 $a^2 \frac{\partial^2 u}{\partial x^2} - \frac{\partial^2 u}{\partial t^2}$ 26. $k \frac{\partial^2 u}{\partial x^2} - \frac{\partial u}{\partial t}$. k > 0 in real life

Collatz Conjecture

- ➤ Think of a positive integer
- ➤ If it is even, halve it
- It if is odd, multiply by 3 and add 1
- > Repeat this process with your new number
- > Keep going, but stop if you get to the number 1

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THE COLLATZ CONJECTURE STATES THAT IF YOU PICK A NUMBER, AND IF IT'S EVEN DIVIDE IT BY TWO AND IF IT'S ODD MULTIPLY IT BY THREE AND ADD ONE, AND YOU REPEAT THIS PROCEDURE LONG ENOUGH, EVENTUALLY YOUR FRIENDS WILL STOP CALLING TO SEE IF YOU WANT TO HANG OUT.

Takeaways

Ways to get involved

Share a problem

Start a maths club and collaborate

Come to a maths camp

Donations and sponsorship

International puzzle

Using <u>lycee.samicharity.co.uk</u> to work on problems together in Kenya and London

Next puzzle launches on 23rd of April

3 weeks to try puzzle and post ideas/answers/computer programs online







A big bunch of links

Staying in touch

Email emily@supportingami.org chris@supportingami.org

Facebook

www.facebook.com/supportingami www.facebook.com/africanmathsinitiative.net Website

https://samicharity.co.uk

Presentation

https://samicharity.co.uk/bcme

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