King Edward VI Camp Hill School for Girls

Maths Department Newsletter

23rd April 2020

The smallest composite Euclid number 2 x 3 x 5 x 7 x 11 x 13 + 1 = 30031 = 59 x 509

News

Welcome back to the maths newsletter. I hope you're all still OK. Captain Tom Moore[1] has been in the news quite a bit recently. The 99-year-old former soldier has raised over £20 million for the NHS by walking around his garden 100 times.

Captain Tom Moore will be 100 years old on 30th April. Meanwhile, here's a maths thing you can try related to birthdays.

Enter the number 7 into your calculator, then do the following things, pressing = after each of them. Multiply by the month of your birth. Subtract 1. Multiply by 13. Add the day of your birth. Add 3. Multiply by 11. Subtract the month of your birth. Subtract the day of your birth. Divide by 10. Add 11. Divide by 100.

The calculator should now display your birthday. If it doesn't, you must have made a mistake somewhere. Can you work out why that works?

Code Breaking

At Camp Hill we love code breaking, so we were interested to find out that some film footage has recently been found, showing some of the real code breakers from World War II. The 11-minute silent film shows smiling staff who worked for MI6 Section VIII at Whaddon Hall in Buckinghamshire, a secret site connected to Bletchley Park. It was at Whaddon that some of the nation's most skilled wireless operators would send out messages that had been decrypted by codebreakers. The film is mostly black and white, and was filmed at different times between 1939 and 1945. If you'd like to watch it, here's a URL you can use: tinyurl.com/TWJ-BletchleyPark
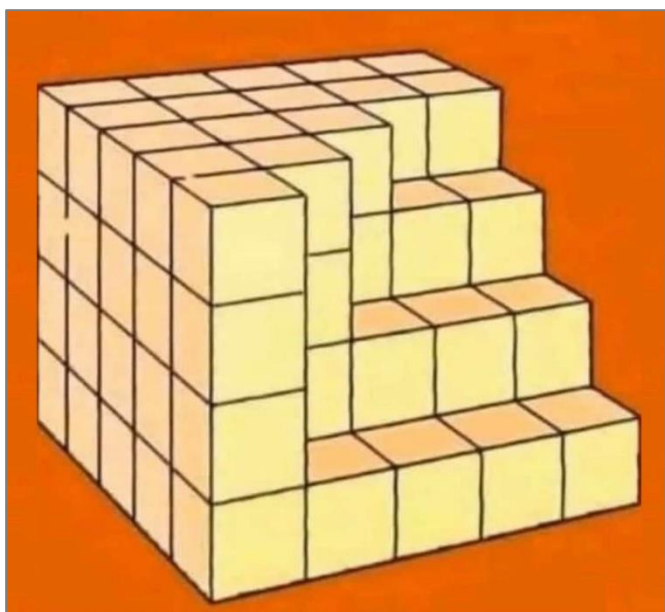

MyMaths Work!

Don't forget to log onto MyMaths and see what work has been set for you this week. Let your teacher know if you can't do it for any reason, or if there are any questions you can't work out the answer to. We'll do our best to help you!

1. Captain Tom Moore is not affiliated in any way with Camp Hill Girls' Maths Newsletter, and the views and opinions expressed within the maths newsletter, both mathematical and non-mathematical, are not necessarily the views or opinions of Captain Tom Moore or anyone associated with Captain Tom Moore.
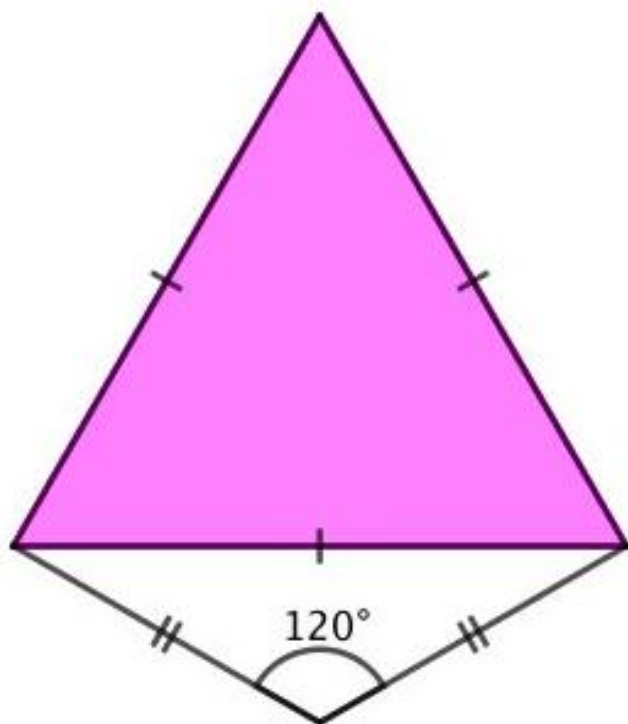
Cubes Puzzle

Here's a puzzle for you. How many little cubes need to be added in order to complete the big cube?[2]

Geometry Puzzle

Here's a geometry puzzle from a maths teacher called Ed Southall.[3] Can you work out what fraction of the whole kite is taken up by the pink equilateral triangle?

Maths Fail

Apparently, you can now buy a bottle of Dr Pepper that contains an infinite number of servings!

Joke

I challenged 1 to a fight. He brought 3 7 and 9 with him

I knew then the odds were against me

What Are The Odds?

On the subject of 'odds', somebody I know posted this question recently.

16 April at 22:51

Any Maths heads awake as Google is sending me on a wild goose chase. What are the odds of 2 people randomly picking the same letter of the alphabet?

Can you work out the answer to this question? Also, if you want to do a bit of research, why is it that the word 'odd' can be used to mean 'odd numbers' but 'odds' can also be used to mean probability? Is there a hidden connection here? If you find out the answer, please let me know! Bye for now 😊

2. And if this puzzle seems simple to you, why do you think it might catch some people out? Why did somebody think that this would make a good puzzle?
3. I don't really know who he is either, but I'm just crediting people whenever I can. Ed Southall is a maths teacher who has written some books about maths. On Twitter and Instagram he's called @solvemymaths