



Mathematics

St Ninian's Mathematics Department Newsletter

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<https://blogs.glowscotland.org.uk/er/StNinians/> [@StNiniansMaths/](#) [@MrCookeMaths](#)

Welcome

Easter has come and gone and we are now into our final term for the school year 2016/2017. I hope everyone has had a very enjoyable break and has come back well refreshed and excited for the term ahead!

April of course is famous for April fool's day, which occurs every year on the 1st of April. One innovative mathematics teacher decided to think outside the box with a stellar ICT performance. As far as April Fool's Day pranks go, this high-tech trick puts many other attempts to shame.

In a funny video posted to YouTube, Professor Matthew Weathers shows off his very impressive video editing skills by making it appear that his overhead projector is on fire.

Professor shocks his class with amazing Star Wars related prank



The prank, filmed at Biola University in California, starts with the teacher pretending to make an accidental mark on the projector screen and follows with a series of impressive video edits.

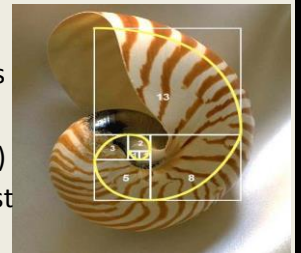
His students erupt in applause as the video comes to an end. Professor Weathers wrote alongside the clip: 'A prank I did for April Fool's Day for my math class. To see it in full visit the link below!

<https://www.youtube.com/watch?v=Z9NQatne0xg>

Maths history

All S1 classes will now soon beginning (or have started) the new topic of numbers, letters and sequences. A very interesting topic given that sequences are all around us! For instance the Fibonacci numbers are Nature's numbering system. They appear everywhere in Nature, from the leaf arrangement in plants, to the pattern of the florets of a flower, the bracts of a pinecone, or even a shell!

However, the story behind the formation of the arithmetic sequence for the sum of n terms is my favourite! It all began with Carl Friedrich Gauss (1777-1855) who was one of the world's most influential mathematicians.



As the story goes, when Gauss was a young boy, he was given the problem to add the integers from 1 to 100 by his lazy maths teacher. Remember that there were no calculators in those days! As the other students struggled with this lengthy addition problem, Gauss saw a different way to attack this problem. He listed the first 50 terms, and then listed the second fifty terms in reverse order beneath the first set.

$$\begin{array}{cccccccccccc} 1 & + & 2 & + & 3 & + & 4 & + & \dots & + & 49 & + & 50 \\ 100 & + & 99 & + & 98 & + & 97 & + & \dots & + & 52 & + & 51 \\ \hline 101 & & 101 & & 101 & & 101 & & & & 101 & & 101 \end{array}$$

Gauss then added the paired values, noticing that the sums were all the same value (101).

Since he had 50 such pairs, he multiplied 101 times 50 and obtained the sum of the integers from 1 to 100 to be **5050**. This gave birth to the formula for an arithmetic sequence!. Well done Gauss, ya legend.

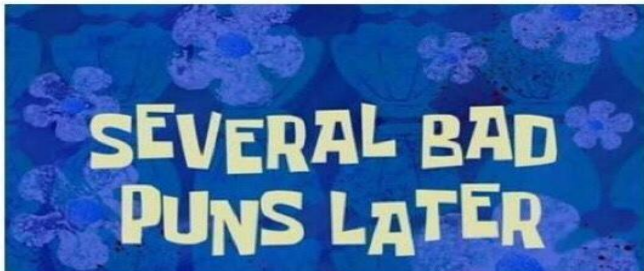
$$S_n = \frac{n}{2}(a_1 + a_n)$$

Bad pun Friday

If you are like our maths department then you will surely love a good/bad pun. Especially if it is about maths! Every Friday lunchtime we are treated to the finest puns or jokes ever written.

Struggling to think of one for your lunch time conversation? Steal one from below and impress (Or embarrass) your colleagues.

dont be mean
be median or mode
damn math fandom bloggers
shut up we have a good range of jokes
reblogging just cos
this should be a sin
guys you're going off tangent
i can't f(x) without this post
These puns are right in my domain
be rational, y'all



This pic takes me back to my roots.

Study leave

Next week (WE 28/04) will be our final week for all S4, S5 and S6 pupils who will be leaving us for study leave to help prepare for their May exams.

I can't speak for everyone, but I am not a big believer in luck or talent and believe that hard work and good preparation gets you everywhere.

If you are an avid golf fan like a few of our members in the department then you will have no doubt heard about Gary Player and how good a golfer he was in his prime, winning 9 major championships.

There is a famous story that accompanies Gary Player. In an interview for Golf digest in 2002 he shared the following tale from when he was in the bunker. The story has inaccuracies but the idea behind it is the main thing.



The story goes like this:

I was practicing in a bunker down in Texas and this good old boy with a big hat stopped to watch. The first shot he saw me hit went in the hole. He said, "You got 50 bucks if you knock the next one in." I holed the next one. Then he says, "You got \$100 if you hole the next one." In it went for three in a row. As he peeled off the bills he said, "Boy, I've never seen anyone so lucky in my life." And I shot back, "Well, the harder I practice, the luckier I get."

There was also another version of this story where the golfer Jerry Barber was credited by Player for using the maxim linking hard work and luck. However what we should take away from the story is that hard work and luck go hand in hand. Don't underestimate how beneficial being organised and prepared for your tests can improve your working knowledge coming up to the day of your test. Preparation is everything!

If you need more materials to help with your preparation then please do not hesitate to visit the maths department for help. Or alternatively, visit the following links below. Remember to challenge yourself!

As I said, I don't necessarily believe in luck. But just in case...

Good luck for all your exams. We wish you all the best!!

Study Links

<https://corbettmaths.com/>

- Useful for tutorials, questions and step by step guides. (NAT5)

<http://www.national5maths.co.uk/free-national-5-maths-2/>

- Useful for topic by topic questions, exam papers and powerpoints.(Nat5)

<http://maths777.weebly.com/>

- Useful for PPQ's, problem solving and also notes (Nat5, H, AH)