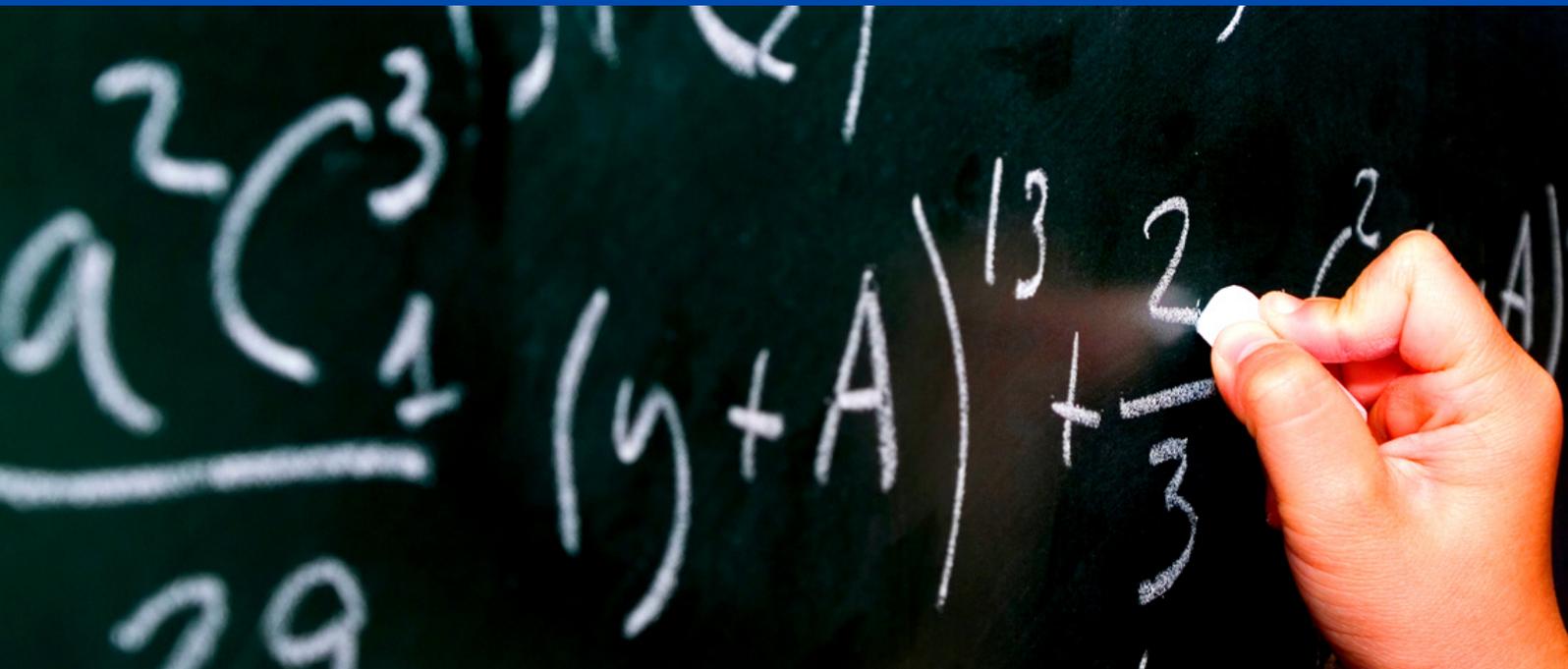


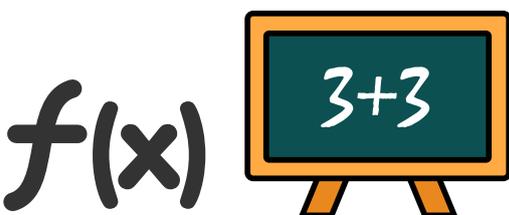
ST COLM'S HIGH SCHOOL



THE OFFICIAL NEWSLETTER FOR THE MATHS AND NUMERACY DEPARTMENT



- ***Department News***
- ***Classroom highlights***
- ***Puzzle of the Month***
- ***Why maths is important for jobs!***
- ***Tips and Tricks***
- ***How to study for maths!***



Welcome!

Spring has officially sprung, and it is starting to heat up in the business end of the year as we prepare our senior pupils for exams.

February was a busy and successful month which saw some fantastic results in the Intermediate Maths Challenge for our third and fourth year pupils. In addition, pupils have been working well in the lead up to their Easter exams.

In this month's newsletter we have our usual snippets as well as a short excerpt on why maths is important for jobs, as well as some tips, tricks and advice on how to study for maths.

Thanks for reading and please get in contact if you wish to get involved in the future!



DEPARTMENT NEWS



Mathematician of the Month

8S: Natasha R
8T: Connor K
8C: Emma M
8O: Shane McM
8L: Shane G C

9S: Peter F
9T: Clodagh C
9C: Corey D
9O: Abi W
9L: Liam E



Website of the month

*Data, information, knowledge:
www.informationisbeautiful.net distil
it into beautiful, useful graphics &
diagrams.*

*Have a look at their website which is
dedicated to helping you make
clearer, more informed decisions
about the world.*



CLASSIC MISTAKE #2

"2's a company, 3's a crowd"

When working with powers/indices, make sure to re-write



$$3^2 = 6$$

$$5^3 = 15$$



$$3^2 = 3 \times 3 = 9$$

$$5^3 = 5 \times 5 \times 5 = 125$$

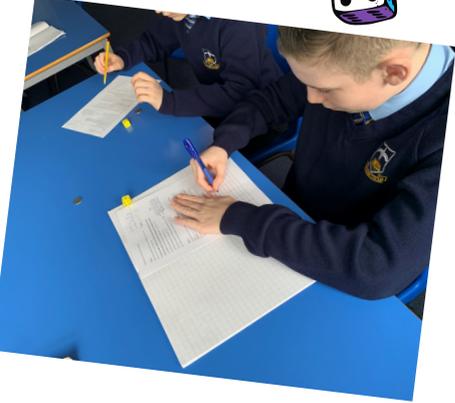
CLASSROOM HIGHLIGHTS

TWOSday
22/2/22

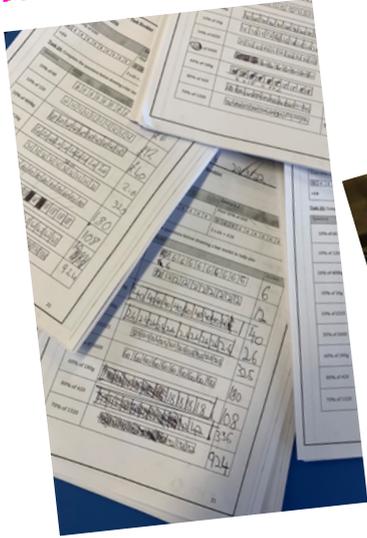
GAMES BASED LEARNING



PRACTICAL MATHS



BAR MODELLING



ST PATRICK'S DAY MATHS



MATHS DAY THROWBACK



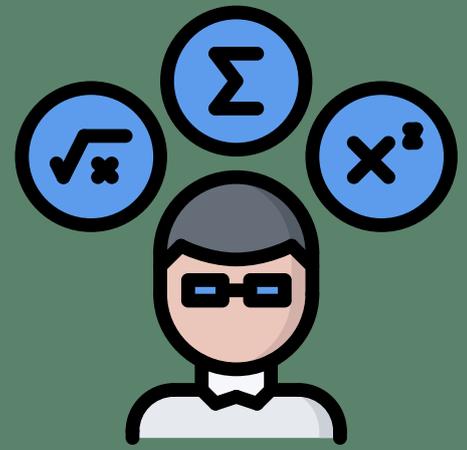
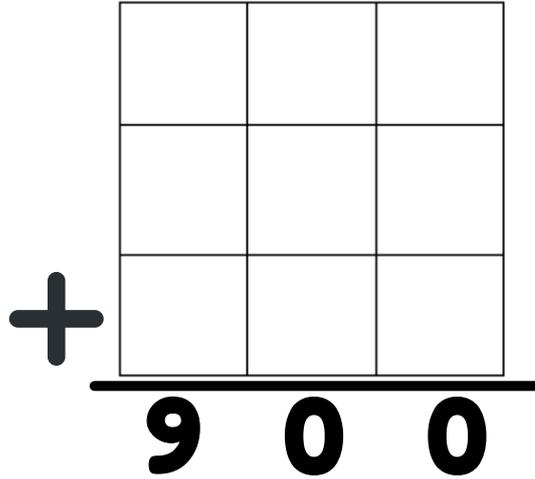
Puzzle of the Month

This month's puzzle is taken from our fantastic izak9 device.

900

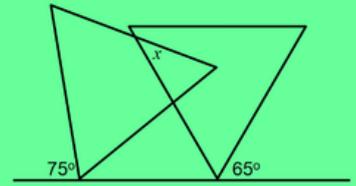
Arrange the nine single digits in an array where each horizontal row represents a 3 digit number in hundreds, tens and units. Display the three different numbers in the array to make sure that when added together they add up to a total of 900.

1	2	3
4	5	6
7	8	9



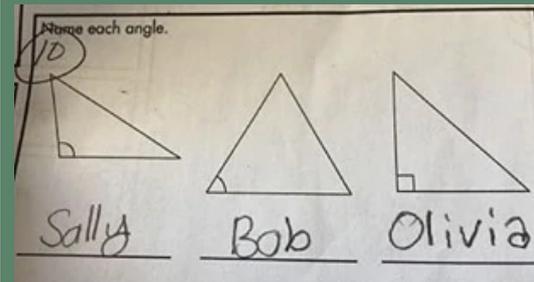
Last month's solution

The diagram shows two equilateral triangles. Find the size of angle x.



Straight lines add to 180 as do triangles. Working a way around we arrive at $x = 40$

Maths picture of the month



Logic puzzle

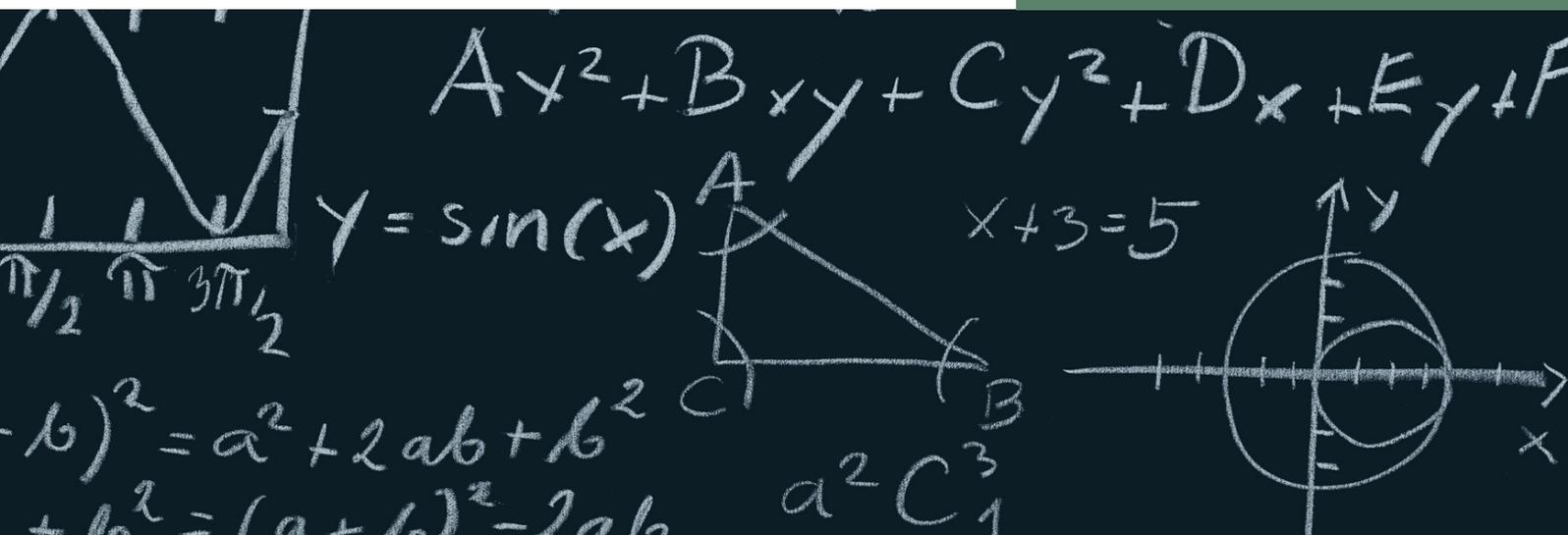
Sent in from our very own Mr Bohill. This lovely logic puzzle was taken from the Irish News

IMPOSSIPUZZLE

"Come on, we all know your fishing stories," Clem chuckled. "The good ones always get away, so we can't see them."

John shook his head. "But it's true, and the brute's measurements were weird too. Just 132 centimetres long overall, its body was one and a half times as long as its tail, and head twice as long as the body."

Quite a fish! How long was its head?



Why maths is important for jobs!

Does being good at maths help you earn more? Will studying maths help you secure an interesting and well-paid career? Will there be more or less maths jobs on offer in the future? These are all questions to ask when you are choosing your GCSE's, A-levels or degree.



In this section, we quickly show the findings from the Smith Report (2017)
<https://www.mathscareers.org.uk/do-mathematicians-earn-more/>

1. Everyone needs basic maths!

'adults with basic numeracy skills earn higher wages and are more likely to be in employment than those who fail to master these skills.'

2. Having a GCSE in maths helps you earn more!

'Individuals who achieve five or more good GCSEs (including English and mathematics) as their highest qualification have a lifetime productivity gain worth around £100,000 compared to those with below level 2 or no qualifications.'

3. There is a mathematical skills shortage in the UK!

'In the UK, around seven in ten employees report that quantitative skills are essential or important to carry out their work. ... In 2012, around 20 per cent of young people in the UK did not have basic skills.'

4. The demand for mathematics is increasing due to technology!

'Developments in technology will alter the nature of work and jobs. A study of the susceptibility of US jobs to computerisation concluded that the jobs available in the future will increasingly require mathematical and quantitative skills.'

The Smith Review shows that studying mathematics really does help people earn more, whatever level they are at. There is also a hidden message behind all of this. Not everyone is just after earning as much as they can – most people want job satisfaction, job security and flexibility. Maths skills are in high demand – meaning that people with the right qualifications will not only be able to command a high salary, they will also have a lot of choices in the job market, meaning that they can have the ability to find a job which suits them and interests them.



In this section we will be offering some nice tricks and tips to help you with your studies.

This month we will be looking at percentages.

It's not always easy to work out percentages in your head, but a simple maths trick can make it incredibly easy to perform difficult or unwieldy mathematical calculations on the spot.

This trick involves doing a simple number swap to figure out your answer. It's not a new technique, but there has been a huge reaction on social media where lots of people never knew this life hack existed. If you ever have to calculate a difficult percentage on the spot without pen and paper or a calculator, you can use a simple shortcut - flip the numbers around.

For example, if you needed to work out 4% of 50 in your head, simply swap and find 50% of 4 instead. This would give you the same answer of 2.

Another example would be if you were asked to find 18% of 25. That to some may be challenging, however, if you swap and instead find 25% of 18, it is suddenly a lot easier. Just half and half again to get 4.5

$$x\% \text{ of } y = y\% \text{ of } x$$



How to Study for maths!



We get it... maths is hard!

But you can get better at it through studying and working hard. With exams coming soon, it will be important to start revising!

This diagram (made by @Chrismcgrane84) highlights how to study for maths. Remember, maths is a practical subject and requires you to **do** maths. Follow these steps and you will no doubt make an improvement!

Identify The Issues

Notes

- Maths is a practical subject.
- **Never** just read your notes.
- You need to do questions!

Past Exam Questions

- Make a **list** of your mistakes
- Write out the correct solutions, don't just read them.
- If you don't understand a question, **ask for help!**
- Go back a few days later and do the questions on your mistake list again.

Be Strategic & Get Support

Be Strategic

- Sometimes do whole past papers, sometimes focus on one topic.
- e.g. : have a day where you focus on your least favourite topic

Homework

- Make sure it is done.
- Go back and fix your mistakes
- Don't ignore the ones you get wrong

Get Support

- Attend supported study
- Ask your teacher for help
- Youtube videos

Help Yourself Remember

Test Yourself

- Do past papers without your notes.
- See what you *really* know
- Redo your incorrect questions a few days later.
- See if you have improved.

Space Your Practice

- An hour of study done often throughout the year is much better than cramming at the end. You will remember more this way.

CorbettMaths Study cards!

Teachers in the school will also help you as much as possible. Speak to your maths teacher to help set targets and plan for revision. Keep an eye out also for revision classes during lunch and after school! We also have a bunch of study cards from CorbettMaths to help organise your notes. Speak to Ms Daly to get your own set!

