King Edward VI Camp Hill School for Girls

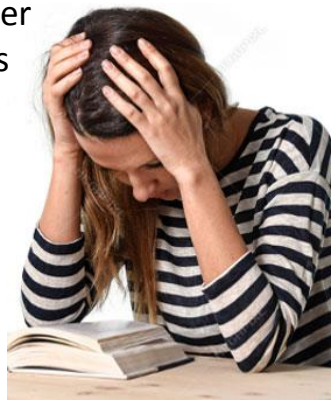
Maths Department Newsletter

1st May 2018

46 is the largest even integer that is not the sum of two abundant numbers

News

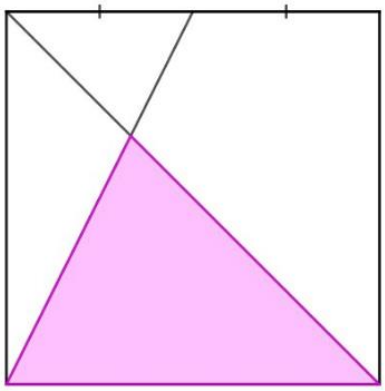
Well, it's almost exam week and maybe you're feeling a bit stressed about it all. If you are, remember that you can always come to the maths department to get help, whenever you find any questions that you don't know how to solve. Also, Maths Workshop will be running as usual over the next few weeks, on Monday lunchtimes in room 13, so you can always come and get help there too if you want to. All year groups are welcome. If you're in years 7, 8 or 9, don't forget that we've also set lots of revision exercises for you to do on MyMaths. If you don't know your login, just let us know and we'll look it up for you.



Maths Puzzle

This puzzle went viral for a while this week. What fraction of the square is shaded pink? The answer is one third, but can you work out why?

Let us know if you come up with a neat solution.



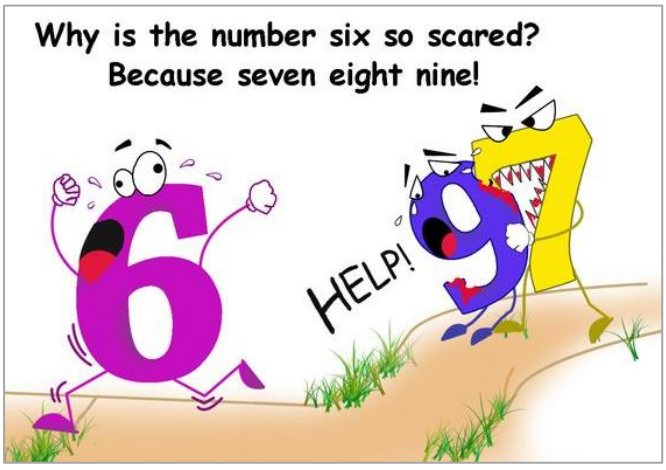
Competitions

We are pleased to be able to tell you that Kanakdurga Nanda (10C) won a medal in the Intermediate Olympiad, which means that she finished in the top 100 students in the whole country. She also came second in the University of Southampton Maths Challenge, which has about 800 entrants nationally.

Salma Berriche (10P) also came 3rd in the same competition. Shreya Shyam (10C) and Kiera Fernandes (8X) were both awarded certificates of merit.

Aamina Rizvi (9X), Maya Patel (10L) and Shreya Shyam all achieved a merit in the UKMT Intermediate Kangaroo, meaning they came in the top 25% of students who qualified for that round. Now we're just waiting for the results of the Junior Maths Challenge[1].

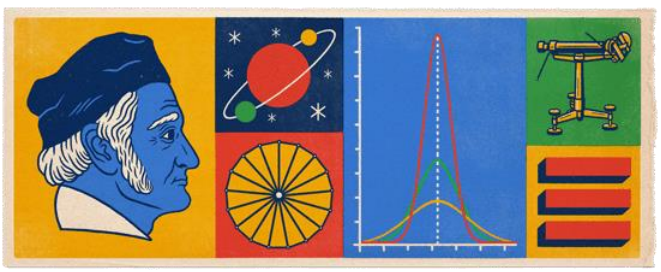
Joke



1. We're pretty confident we have at least one extremely high score this year in the Junior Maths Challenge. Hopefully, we'll be able to confirm this in the next newsletter.

Carl Gauss

This week would have been Carl Gauss's 241st birthday. If you've never heard of him, this is because, for some strange reason, society doesn't celebrate great mathematicians as much as it does writers musicians and actors, for example. Perhaps this is because people struggle to understand what it is that mathematicians actually do. Can you imagine though, studying *Romeo and Juliet* in English, and the teacher not telling you that it was written by Shakespeare? As if it wasn't important? Perhaps in maths it isn't so important, because mathematical truths are the same truths no matter who discovers them. But it's still worth knowing who these people were, and how they made the discoveries they did. Gauss may well be the second greatest mathematician who ever lived. If Euler[2] was like the Shakespeare of maths, Gauss[3] was maybe a bit like Charles Dickens. He lived in the 19th century and, like Dickens's character Ebenezer Scrooge, he was quite grumpy and could also be quite mean. Unlike Scrooge though, who contributed nothing positive to society (mostly because he was fictional), Gauss discovered loads of amazing mathematical facts and formulas and, which is why Google decided to celebrate his birthday this year with one of their special doodles.



More about Gauss

There is a famous story about Carl Gauss. They say that, when he was about 10 years old (round about the year 1777), his maths teacher asked the class to add up all the positive whole numbers from 1 to 100. Almost instantly, Gauss gave the answer. Can you work out what it is, and can you work out how Gauss found it so quickly?

More Puzzles

If you're looking for something to do, why not try some of these puzzles from my maths friend Chris Smith? @aap03102

Bernardo tells me that the sum of the ages of his five daughters is 43.

The ages of any two of them have a common factor greater than one.

How old are his daughters?

2. Hopefully you know who Euler was. If you don't, please look him up.
3. Gauss rhymes with house, and Euler is pronounced Oiler.