



There are 14 pounds in a stone

News

So perhaps, like me, you thought you might have a bit of a break from maths over the Easter holidays (apart from the unavoidable ovoids), but then you noticed that the Avengers film was on TV



with its constant talk of 'the tesseract', which you might know is just another name for a four dimensional hypercube (remember those from newsletter 5?) And perhaps, like me, you might have gone shopping and seen these mathematical bath bombs in Lush.



What shape are they, I wonder?¹ And what would be the formula for the volume of these bath bombs? Then we went to Ikea and saw some drinking glasses with a nonagon shaped base. This is really unusual. It's not very often that you see a nonagon in the real world.

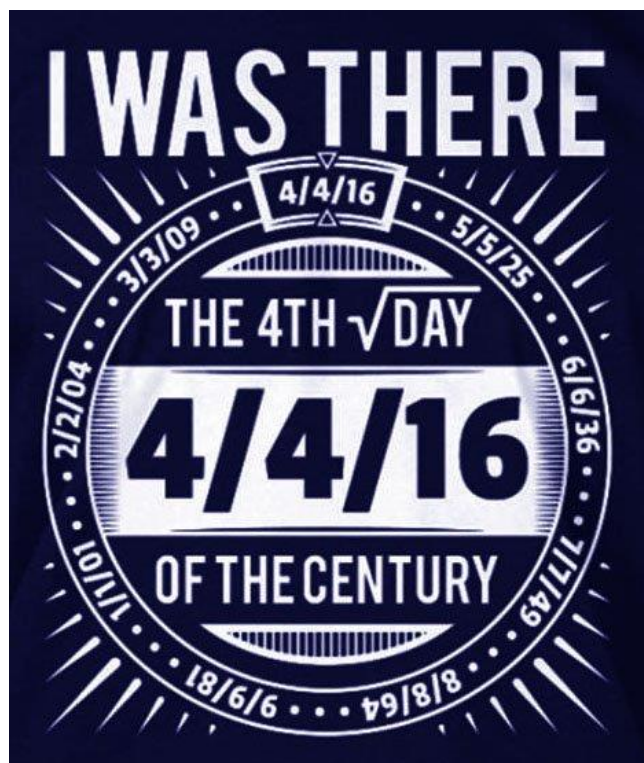
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Then on 4th April it was one of those maths dates that come around every now and then. This time it was a square root day,



A real life nonagon

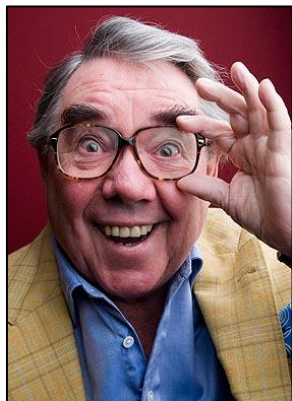
because $4 \times 4 = 16$ (as I'm sure you know) and the date was 4/4/16 which, unlike pi day, works equally well in Britain as it does in America. The next one of these will not be until 5/5/2025 (2025 also being the next square numbered year, as $2025 = 45 \times 45$).² As the picture below shows, people³ were talking about the square numbered date, saying that they were there. I'm more curious about the people who weren't there. I'm not really sure how you could have avoided it...



1. I almost bought one, so I could have a proper look at it, but they didn't smell very nice.
2. This means that 5/5/2025 might actually be the squarest day in the history of the universe!
3. Not everybody. Just some people.

More News + a puzzle

On 31st March, the comedian Ronnie Corbett died, and the UK Maths Trust tweeted a maths question they had used on one of their maths challenges in 2010, based on the very famous *Four Candles* sketch from their TV show *The Two Ronnies*.⁴



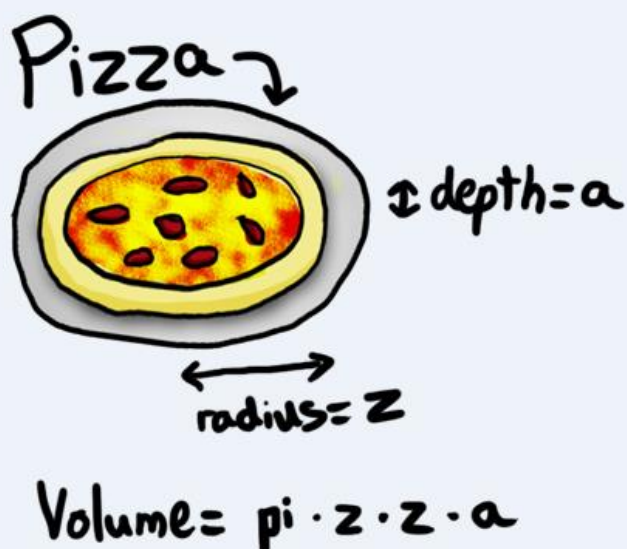
At Corbett's Ironmongery a fork handle and a candle cost a total of £6.10. The fork handle costs £4.60 more than the candle. What is the cost of two fork handles and four candles?

- A) £14.45 B) £13.70 C) £12.95
D) £12.20 E) £8.35

Did you know?

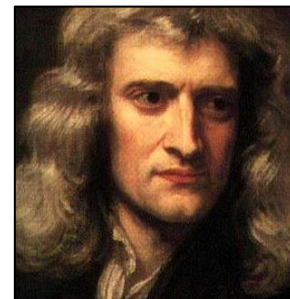
The Easter holiday was just over a fortnight long. Did you know that two weeks is called a 'fortnight' because it's fourteen nights?

Joke



The Philosopher's Stone

Long before Harry Potter had his first adventure, Isaac Newton had a go at creating the famous philosopher's stone. If you're a regular reader of the maths newsletter, you're probably building up a picture of what Isaac Newton was like and it probably comes



as no surprise to you that he would try to do something like this. Recently, a manuscript has been discovered, describing what he did. As you probably remember from the Harry Potter book, the philosopher's stone was a mythical substance that alchemists believed had magical properties and could even help humans achieve immortality. Before we knew much about chemistry, alchemists believed that metals could be broken down into their constituent parts and be transmuted into other, more expensive metals, like gold. They developed extensive symbolism and wrote numerous manuscripts in secret codes so that only people who were on their intellectual level would be able to understand them. I'm sure you'll agree that this sounds like just the sort of thing that Newton would be involved with.

If you want to read a bit more about this, the full article can be found outside the maths office, in the place where we put all the interesting mathematical articles. We hope you enjoy reading them.⁵ Anyway, I can't sit around here all day... Lessons to teach and all that...



4. If you've not seen this, you probably should. Just go onto YouTube and type "Two Ronnies Four Candles"
5. Or just read them, even if you don't particularly enjoy them. It will do you good.