



Will you still need me, will you still read me, when I'm 64?

### News

Welcome to the 64<sup>th</sup> maths newsletter! The number 64 was popularised in the 1960s by The Beatles, in their song *When I'm Sixty-Four*, written by Paul McCartney. They actually had a lot of songs with numbers in their lyrics, such as *Eight Days a Week*. Clearly though, they didn't become the most successful band ever in the history of popular music just by not knowing how many days there are in a week. They had some really great songs too. So here's a puzzle for you based on Beatles lyrics. Send me the correct answer for two house points.<sup>1</sup>



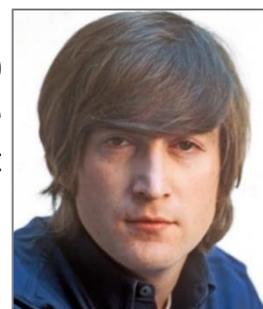
What do you get if you divide the number of suns that call John Lennon on and on across the universe by the number of pages that are (roughly) in the paperback writer's book – then divide that by the number of holes in Blackburn, Lancashire, multiply that by the number of carats in the golden ring Desmond bought Molly – add to that how old she was when she was standing there, subtract the number of somersets Mr H will demonstrate, add to that what 'one and one and one' is, subtract how many of us were riding nowhere, then add how many the taxman gets. Finally divide this by the fraction of the man I used to be that I'm suddenly not to get the final answer.

What number do you get?

1. Which means you have to tell me what house you are in when you send me your solution!  
You keep forgetting to do that. Send your solutions to [m.taylor@kechg.org.uk](mailto:m.taylor@kechg.org.uk)
2. It's not really a song – more a collection of noises.

### Number Nine

John Lennon apparently had a bit of thing about the number 9. He wrote songs called *Revolution 9*<sup>2</sup>, *One After 909* and *#9 Dream*. He was born on 9<sup>th</sup> October 1940 and lived at 9 Newcastle Road. The Beatles got together in 1960 and broke up 9 years later. They first played in Liverpool on 9/2/61, were discovered by their manager on 9/11/61, signed their contract with EMI on 9/5/62 and performed on the Ed Sullivan Show on 9/2/64. John's son Sean was born on 9/10/75. He was shot and killed on 8<sup>th</sup> December 1980 in New York, but back in the UK it was already the 9<sup>th</sup>.



### Joke

A chicken pie in Jamaica costs £2.00  
 A chicken pie in Trinidad costs £2.40  
 A chicken pie in St Kitts costs £2.15

**These are the pie rates of the Caribbean**



## Hardy and Ramanujan

Hardy and Ramanujan were walking through the streets of Cambridge when they found £60 lying on the pavement.

Hardy said, "If I keep the money, I will have the same amount as you have, so I think we should do that."

Ramanujan said, "But if I keep the money, then the product of the two amounts we would then have would be 1729, which is a very interesting number!"

How much money did they each have?<sup>3</sup>



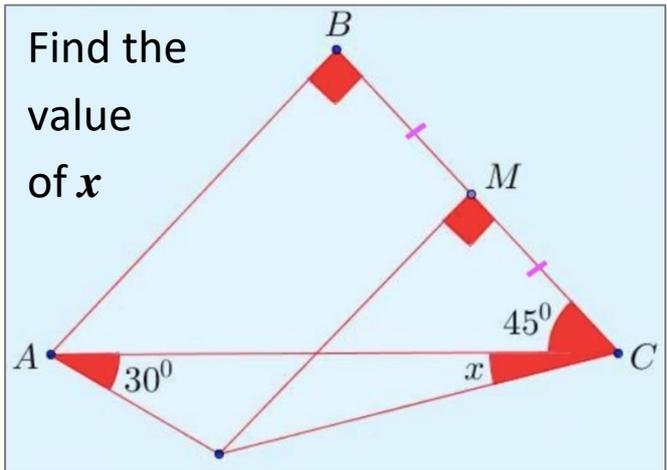
G. H. Hardy



Srinivasa Ramanujan

## Geometry Puzzle

Find the value of  $x$



## Number Pattern

Here's an interesting<sup>4</sup> number pattern. Can you find any other things like this?

$$1548^2 - 234^2 = 2341548$$

## Mathematical Movie Quiz

Here's a quiz for you to have a go at.<sup>5</sup> Each one of these is a film. Can you work out what they are? They're not films *about* maths – they're just regular films. The first person to guess each one can get two house points, so let me know what house you are in when you send me your answers! Some of the films are a little bit old, but most of them are very well-known. As usual, send your answers to [m.taylor@kechg.org.uk](mailto:m.taylor@kechg.org.uk).

$\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$			$\frac{1}{n} \sum_{i=1}^n$
1609.344 METRES	$a+bi$	$F = \{x : x \text{ is a fear}\}$ $\sum_{x \in F} x$	[13]
$x \vee \{\text{cist}\}$			$(2i + 1, 2j + 1)$
$e^{i\pi} + 1 = 0$ and 666	$\frac{\partial u}{\partial t} - \alpha \nabla^2 u = 0$	$\left  \frac{ds}{dt} \right $	2.7182818284590452...

3. This is not a true story. I made it up.

4. If, admittedly, probably completely useless – but it's not about usefulness. Usefulness is overrated.

5. This quiz was credited to Padmanabhan Seshaiyer of George Mason University.