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January 1998

Regulars

Letters



What did the Romans know?

Did the Romans understand the concept of "zero" and did they have a Roman numeral for zero? Did the Romans understand the concept of fractions and how did they represent them?

J. Reynolds

According to "Mathematics for the million" by Lancelot Hogben (Allen & Unwin Ltd, London, 1953) the Roman numeral system was a simple representation of the state of an abacus. Each column had its own letter (I, V, X etc...) and the number of times the symbol was written indicated the number of beads present (with the added complication that IV was used instead of IIII, IX instead of VIIII etc..). The absence of a bead was not recorded by the Romans so, as such, they had no concept of zero.

The Romans did not use fractions either, instead they would invent smaller units to overcome inaccuracies in a measurement. Abstract fractions as we know them were invented by Hindu mathematicians whose work dates from around 500AD.

More on Goldbach

We are two students who are working on the Goldbach conjecture for a seminar. We'd like to plot the 'function' : $n \mapsto$ number of pairs and therefore we'd like to know the algorithm you use in order to find the pairs.

Stefan and Dennis

The PASS Maths Goldbach calculator uses the 'Sieve of Eratosthenes' to calculate all the prime numbers up to 'n'. It then simply steps through all the possible pairs recording a Goldbach pair each time both numbers are in the prime list.

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I had to do a report on Goldbach and you really helped except you didn't have a ternary Goldbach conjecture calculator (for odd numbers). Can you add one?

We hope to have this available with our May Issue, No 5.

PASS Maths CD-ROM

My head of department gave me a copy of your CD-Rom PASS Maths to look at and I am very impressed by it.

I was interested and impressed by your web site which I accessed through the CD that was sent to me at my school.

How to contact us: [Any comments?](#)



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