

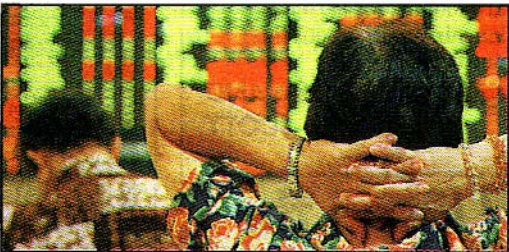
DEAR Dr Maths

I FIND it hard to convince my son that maths is worth studying beyond school. He enjoys using his computer and wants to do something in IT. Are there any other maths and computing jobs?

Jean,
Newcastle

There are lots of maths jobs that are interesting and pay well in areas such as finance, business and engineering. All these jobs require their staff to be numerate and quite often skilful at predicting the future using graphs and algebra.

Good mathematicians can command very high salaries if they can show skills in these areas.



CAREER: Monitoring the stock market is a job for people that are good at maths

The Institute of Mathematics and its Applications has helped to create this excellent website showing the great variety of careers available in maths www.mathscareers.org.uk

Computing is closely linked to maths and even from your home you can be a world famous mathematician, with a little bit of luck.

There is a \$100,000 prize being offered by the Electronic Frontier Foundation in California, USA, to find a prime number with 10 million digits.

A prime number is a number that cannot be divided exactly by any number other than itself and one. The first nine are 2,3,5,7,11,13,17,19 and 23.

Predicting large primes is very difficult, as there seems to be no pattern to numbers like this.

Here are a few strange prime numbers 13331, 15551, 16661 and 3444443. Even this last example is only seven digits long.

Since no method has been found to link one prime to the next one in the sequence, you may think your chance of claiming the prize is lost!

Worry not. There is a piece of software you can download from the Internet on to your home computer and when your computer is not doing anything this software hunts for primes.

This software and more information on primes can be found at www.mersenne.org/prime.htm

Finding larger prime numbers will hopefully give us a greater understanding of how these special numbers fit into our counting system.

Yet this is only one side of this project, as when credit card details are passed over the Internet, prime numbers are used to encode and secure these transactions.

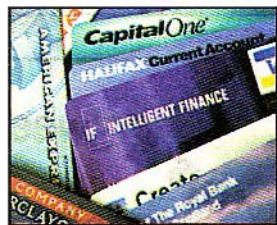
Therefore the more we learn about prime numbers will enable us to have greater confidence in the security of the Internet.

Here is a puzzle for you to try:

There is only one prime number between 90 and 100, what is it? The first correct entry drawn will win Your Numbers Up!, a fast-paced number game for 2-6 players.

Well done to Bob Maxwell, from Gateshead, who correctly worked out the only possible three dart finish between 164 and 170 is 167. Treble 20, treble 19 and bull.

Do you have a maths question or problem? Write to Dr Maths, Evening Chronicle, Groat Market, Newcastle, NE1 1ED or email: DRMaths@hotmail.co.uk



PRIME ROLE: A pile of credit cards