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Understanding uncertainty: What was the probability of Obama winning?
This may seem like an odd question after all, heâ€™s won but it opens up some deep philosophical issues surrounding probability. **David Spiegelhalter** investigates how probability can be defined.

Chaos, chance and money
With the credit crunch dominating the news, columnists have been wailing about "chaos in the markets", and "turbulent" share prices. But what does move the markets? Are they deterministic, or a result of chance? **Colva Roney−Dougal** explores the maths, from chaos to group theory.

A disappearing number
Mathematics takes to the stage with *A disappearing number*, a work by Complicite, inspired by the mathematical collaboration of Hardy and Ramanujan. **Rachel Thomas** went to see the play, and explains some of the maths. You can also read her interview with Victoria Gould about how the show was created.

A risky business: how to price derivatives

In the light of recent events, it may appear that attempting to model the behaviour of financial markets is an impossible task. However, there are mathematical models of financial processes that, when applied correctly, have proved remarkably effective. **Angus Brown** looks at one of these, a simple model for option pricing, and explains how it takes us on the road to the famous Black−Scholes equation of financial mathematics, which won its discoverers the 1997 Nobel Prize in Economics.

Constructive mathematics

If you like mathematics because things are either true or false, then you'll be worried to hear that in some quarters this basic concept is hotly disputed. In this article **Phil Wilson** looks at *constructivist mathematics*, which holds that some things are neither true, nor false, nor anything in between.

Unreasonable effectiveness

When it comes to describing natural phenomena, mathematics is amazingly even unreasonably effective. In this article **Mario Livio** looks at an example of strings and knots, taking us from the mysteries of physical matter to the most esoteric outpost of pure mathematics, and back again.

From restaurants to climate change

We live in a world full of information and it's a statistician's job to make sense of it. In this article **Dianne Cook** explores ways of analysing data and shows how they can be applied to anything from investigating diners' tipping behaviour to understanding climate change and genetics.

Career interview: Actor and mathematician

Victoria Gould has always known she would be an actor, and went straight from studying arts at school to running her own theatre company. But she eventually had to come clean about her guilty secret − she loves maths − and has since managed to combine a career as a research mathematician and teacher with a successful acting career on television and in theatre. She tells Plus why she needs to use both sides of her brain.

The *Plus* sports page: The curse of the duck

The recent news of the great Indian batsman Sachin Tendulkar surpassing West Indian Brian Lara's record number of test runs has given maths−loving cricket geeks another opportunity to pull out their calculators and Excel spreadsheets. **Marc West** is openly one of these nuts and did just that.

Browse all articles from the *Plus* sports page.

Teacher package: Prime numbers

So basic, yet so tricky: prime numbers are the atoms among natural numbers and lie at the centre of some of the most difficult open problems in maths. This package brings together all material we have on primes, from prime number algorithms to new discoveries. And you will find out what all that's got to do with David Beckham.

Plus is part of the family of activities in the Millennium Mathematics Project, which also includes the NRICH and MOTIVATE sites.