

**DEAR Dr Maths,  
looking at the list of numbers  
can you see a pattern?**

**David, via e-mail**

During Newcastle Science Festival this week I gave a talk about some of the people who have uncovered mathematical discoveries over the last 2,000 years.

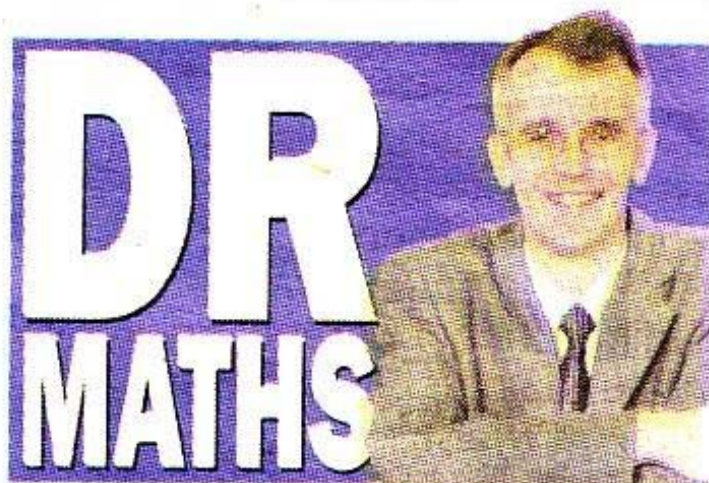
Some mathematicians spend their time looking for patterns and then generalising these to understand how this can help us in the future. For example, the weather forecast is generated every day using a computer program which has been written, and is continually refined, by mathematicians.

Being able to predict the weather correctly is important and can save lives if you are able to foretell when the next storm is likely to hit. The world of business relies on making predictions about future trends in sales, and many different types of mathematical models are used to do this.

There is an interesting book called *The (Mis) Behaviour of the Markets, A Fractal View of Risk, Ruin and Reward* by Benoit Mandelbrot. It shows how by looking at previous business data you can predict the future, sometimes!

The hidden secret in the pattern offered by David is an interesting one. I thought it would be a good challenge to leave it unsolved and ask for readers to write and explain the hidden sequence.

The first correct answer will win a



1.0

1.3

2.13

3.213

5.0213

11.33213

15.220213

25.0303213

41.34350213

102.235433213

133.3553520213

222.25525003213

333.425113050213

copy of the book *More Mathematical Curiosities*.

■ **Do you have a maths question or problem? Write to Dr Maths, Evening Chronicle, Groat Market, Newcastle, NE1 1ED or e-mail**

**DRMaths@hotmail.co.uk**