Top Class

Evening Chronicle
Thursday
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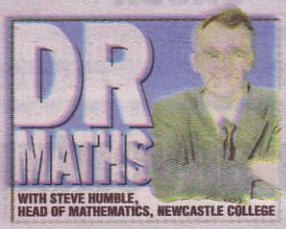
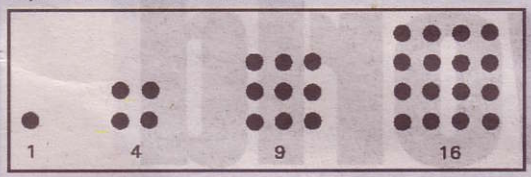
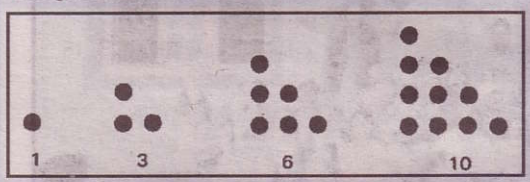
DEAR Dr Maths,
My 15-year-old son does not see the point of studying maths GCSE. I have tried to tell him that it will be useful, but he doesn't listen to his Mum. Can you help?



THERE is mathematical geometry all around us, but sometimes we look and do not see.
Over the next few weeks I am going to looking closer at the way mathematical geometry is involved in our everyday lives.
Patterns in shapes such as triangular and square numbers affect the architectural landscape of the world we live in. They influence the shape and form of many everyday objects and items, such as buildings, cars, mobile phones and fashion design.
Square numbers look like this:



The pattern goes 1x1=1, 2x2=4, meaning in general that a square number is side x side.
Triangular numbers look like this:



The pattern for these is: 1x2÷2=1, 2x3÷2=3, 3x4÷2=6
Patterns such as these show us links between numbers and geometry. From these basic constructions more complex patterns can be formed such as the pattern for creating stars. What do you think the geometry of star numbers would look like?

Above is a mathematical picture of part of a well-known building in Newcastle. Write in or e-mail me with the name of this building and the name of the maths shape you can see.The first correct answer will win a copy of the book Visual Magic by John Murray.
Take a look around you this week and see if you can see any maths geometry. Send in your pictures which say maths to you.
■ Do you have a maths question? Write to Dr Maths, Evening Chronicle, Groat Market, Newcastle upon Tyne NE1 1ED or e-mail steve.humble@ncl-coll.ac.uk