

1. In this sum, each of the letters **A, B, C, D, E, F, G** represents one of the digits **1, 2, 3, 4, 5, 6, 7**, but not in the same order.

$$\mathbf{A \times BC + DEF = 700 + G}$$

Can you work out what each letter stands for?

**Clue:** A and G are both less than 4.  
Don't tell anyone I told you!

2. Each of these decimals has been calculated by dividing one whole number by another.  
What could the division sums have been?

a.  $0.7777777...$

b.  $0.1111111...$



Divide the following sums and make a note of the results:

$$28 \div 99, \quad 42 \div 99, \quad 12 \div 99$$

Now use what you have discovered to work out the sums that gave these decimals:

c.  $0.3535353...$

d.  $0.7878787...$

e.  $0.2727272...$

f.  $0.9292929...$

Can you extend this to these decimals?

g.  $0.5275275...$

h.  $0.4064064...$

i.  $0.7237237...$

j.  $0.9399399...$

Piece of cake, really. All you need is a calculator, a pencil, a piece of paper, a clear head, nine hours sleep, a drink of lemonade and a chocolate biscuit or three.



And a piece of cake, of course!