



**MANNINGHAM**  
UNIVERSITY OF THE THIRD AGE

## U3AM at Home

### **Exponential Growth**

Now that tutors have been invited to submit articles to U3A, it seems the perfect moment to remind everyone of the following simple example of exponential growth.

First of all, picture a square board, 8 x 8, divided into 64 small squares – in other words, a chess board. Now picture yourself placing 1 grain of wheat on the first square, 2 grains on the second square, 4 on the third square, 8 on the fourth square, 16 on the fifth square and so on. ‘So on’ of course means doubling as you go. You may find it hard to believe but by the time you have placed your grains on thirty-three squares you will have used more grains than there are currently people in the world.

This of course is the reason for our present enforced isolation. If each infected person is capable of infecting just two others each day, then it wouldn’t take too many large gatherings over a fairly short period to infect us all.

As tutors have also been invited to suggest exercises, I hope some of you may enjoy calculating exactly how many grains of wheat you would need in order to place them as instructed on the first thirty-three squares.

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