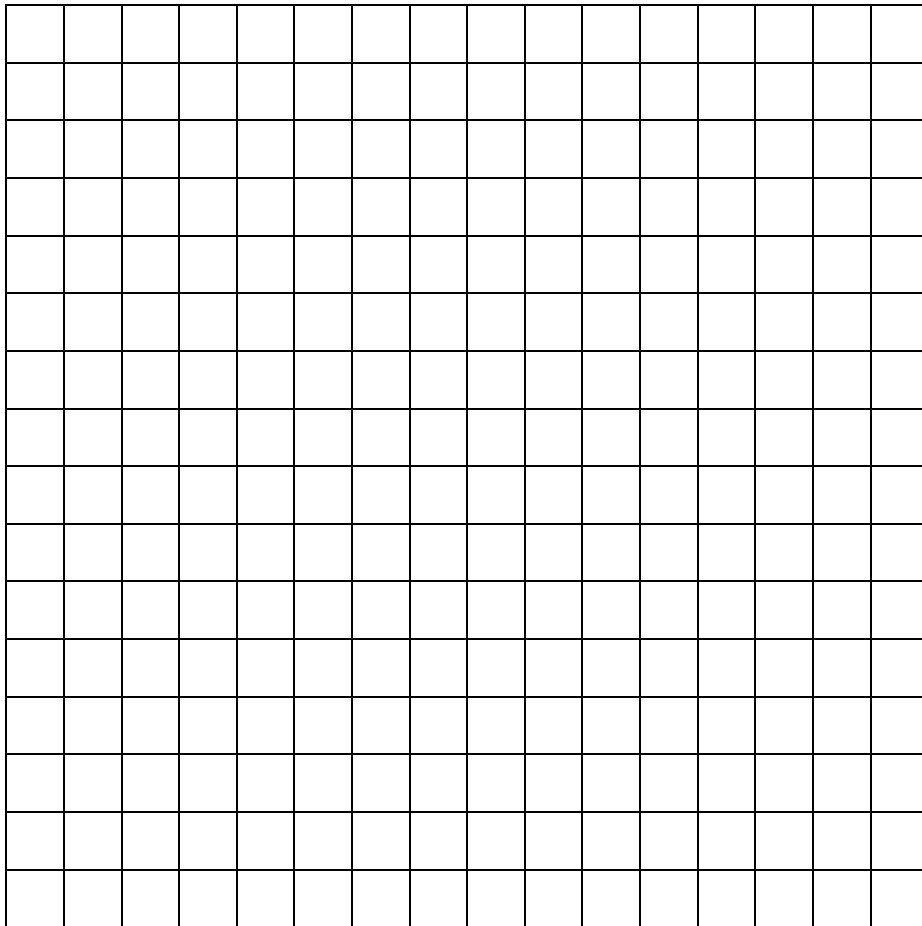




THIRDS

$$\frac{1}{4} + \frac{1}{16} + \frac{1}{64} + \dots = \frac{1}{3}$$

- a) Write down the fraction that comes after $\frac{1}{64}$ in the infinite sum above:
- b) Colour in $\frac{1}{4}$ of the grid below.
- c) By colouring in other areas of the grid convince yourself that the sum above is true.



- d) Use a calculator or a spreadsheet to calculate the digits of $\frac{1}{3}$, by adding as many terms of the sum as you can.