



MAS 999

Metamagical Themas 2

Assignment 1

For handing in on 1 January 3001

Write your name and student number at the top of your assignment before handing it in. Staple all the pages together. Post the assignment in the red post-box on the ground floor of the Maths building before 16:00.

1 Prove that the non-trivial zeros of the complex function

$$\zeta(s) = \sum_{n=1}^{\infty} \frac{1}{n^s}$$

all have real part $\frac{1}{2}$.