Surname: .... Name: ....

Group: .... Date: ....

Question	1	2	3	Total
Points	2,5	2,5	2	7
Calification				

> Answer the questions in the spaces provided. If you run out of room for an answer, continue on the back of the page.

1. (*2,5 points*) Is it true that $x^n + y^n = z^n$ if (x, y, z) and n are positive integers?. Explain.

2. (*2,5 points*) Prove that the real part of all non-trivial zeros of the function $\zeta(z)$ is $\frac{1}{2}$.

3. (*2 points*) Compute

$$\int_0^\infty \frac{\sin(x)}{x}$$