



ZETA FUNCTION

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Abstract

In this article, the Riemann Hypothesis is proved using real analysis techniques. The strategy used in the proof consists of evaluating the simultaneous cancellation of the real part of the zeta function at points s and $1 - s$. Using real analysis and an integral representation of the zeta function it is possible to demonstrate that this only occurs if $\text{Re}(s) = 1/2$.

Keywords and phrases: critical line, Zeta function, non-trivial zeros, Xi Riemann-function.

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