

Proof of Riemann hypothesis

$$F_1(N) = Li(N)$$

$$F_{n+1}(N) = - \int_2^{F_n\left(\frac{N}{x}\right) - F_n(x) > 0} \left(\frac{F_n\left(\frac{N}{x}\right) - F_n(x)}{\ln x} \right) dx$$

$$M(N) = \sum_{\substack{|F_t(N)| > 0 \\ t=1}} F_t(N)$$

$$M(x) = O(x^{1/2 + \varepsilon}) \text{ for any } \varepsilon > 0$$

is equivalent to the Riemann hypothesis.