Affirmative resolve of Legendre's conjecture if Riemann Hypothesis is true.

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March 17, 2018

Abstract

Near m, the destance of primes is lower order than $\log m$. This is the key to solve the Legendre's conjecture.

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Theorem 1.1. *Legendre's conjecture*
There is at least 1 prime n^2 *and* $(n+1)^2$

Definition 1.1.

$$Li(x) := \int_2^\infty \frac{1}{\log x} dx$$

Theorem 1.2. *The prime number less than* m *is*

$$\pi(m) = Li(m) + O(\sqrt{m}\log m)$$

We think constant K,for enough large m,"destance of primes"$<< K\sqrt{m}\log m$.K is not depend on m.Remark K is taken less than 1. So, Legendre's conjecture is true for m.