The distribution of primes

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Abstract

In this paper, we find the axiomatic pattern of prime numbers.

1 Introduction and results

In 1859, Riemann [Rie59] computed the distribution of primes. Our motivation is to axiomatize the structure of primes. We have the following postulate.

Postulate 1. Let p be a prime number. Then:

1. $2 \in \mathbf{Z}^{+}$.

2. $4 \nmid p$.

3. $p^{0} = 1$.

4. $(-1)^{p} = \mp 1$.

References

[Rie59] B. Riemann. Ueber die Anzahl der Primzahlen unter einer gegebenen Grösse. *Monatsber. Akad. Berlin*, pages 671–680, 1859.