

# The distribution of primes

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## Abstract

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

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## 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.** Given a prime number  $p$  and the function  $\tau$ . Then:

1.  $2 \in \mathbf{Z}^+$ .
2.  $4 \nmid p$ .
3.  $p^0 = 1$ .
4.  $(-1)^{\tau(p)} = 1$ .

## References

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