

There is no largest prime number

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Outline

- 1 Proof
 - Method

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The proof uses *reductio ad absurdum*.

There is no largest prime number.

Proof.

- ① Suppose p were the largest prime number.
- ② Let q be the product of the first p numbers.
- ③ Then $q + 1$ is not divisible by any of them.
- ④ Thus $q + 1$ is also prime and greater than p .



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