

There Is No Largest Prime Number

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The proof uses *reductio ad absurdum*.

Theorem

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- 3 Then $q + 1$ is not divisible by any of them.

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- 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 But $q + 1$ is greater than 1, thus divisible by some prime number not in the first p numbers.

A longer title

- one
- two