

Euklid

There Is No Largest Prime Number With an introduction to a new proof technique

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There Is No Largest Prime Number Euklid The proof uses *reductio ad absurdum*.

Theorem

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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