

The Goldbach conjecture holds for 60

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1 Abstract

A long standing conjecture by Goldbach states that every even integer greater than two can be written as a sum of two prime numbers. In this paper, we present the proof that the conjecture is true for 60.

2 The proof

The proof is based on the beautiful theorem by A. Grothendieck [1]:

Theorem 2.1 (Grothendieck). *57 is a prime number.*

We apply this to prove the main result:

Theorem 2.2. *The Goldbach conjecture is true for 60.*

Proof. We know from school that 3 is a prime number. By theorem 2.1, so is 57. Therefore, we have the decomposition $60 = 3 + 57$. This proves the claim. \square

3 References

[1] Schizo ramblings in some conference or something