

Golbach's Conjecture Proof

I created an algorithm that guarantees the validity of Goldbach's Conjecture (Gatton-Robey, E., 2018).

The algorithm eliminates all even integers that are not the sum of an even integer when the number 3 is added to one other prime number.

The visual pattern that emerges from the algorithm maps all prime numbers. This pattern is also applied to individual consecutive primes to eliminate all even numbers that are not the sum of each prime number plus one other prime number.

By layering the pattern to account for all possible "sums of two prime numbers" combinations, it can either be said that "all evens will be eliminated" or "no evens will be eliminated". What this means is that what happens to one even integer is universal.

Proof: When applied to the number 3, the algorithm eliminates the number 12 but not the number 14. The same pattern, when applied to the number 5, eliminates the number 14 but not the number 12. When combining the results, either 12 and 14 are both eliminated or 12 and 14 are both removed from the set of eliminated numbers. Eliminating even numbers implies they are not a sum of two primes. Since 12 and 14 are both sums of two primes, this contradicts the idea that all evens are eliminated. Therefore, all even integers are systematically removed from the set of "eliminated evens", and all even integers are a sum of primes.

Reference

Gatton-Robey, Elizabeth. (2018). *Prime Number Prediction Formula*. Retrieved from:
[Vixra.org/abs/1803.0493](https://vixra.org/abs/1803.0493)