Pure Gold: Exploring the Goldbach Conjecture

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Abstract

For centuries, the Goldbach Conjecture has astonished mathematicians around the world. The conjecture, formulated by Christian Goldbach, states that every even integer greater than 4 is the sum of two odd, prime numbers. Although many of the best and brightest mathematicians have tried to prove this conjecture, none have been able to succeed in doing so. In this paper, I will attempt to prove the conjecture using the method of contradiction. In addition, I attempt to search for patterns that emerge from an arrangement of prime numbers. Lastly, I explain the challenges that come with proving this as well as provide recommendations for people who wish to do further research.