Research Paper

Proof of Goldbach Conjecture

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ABSTRACT
Goldbach conjecture states that every positive even integer can be expressed as the sum of two prime numbers. Basic concepts of number theory are used to prove this conjecture.
***KEYWORDS:** prime, odd, even*

Proof
Let x and y be two non-prime odd numbers and z be any even number.
Now,
every odd number can be expressed as the sum of two even numbers,
Therefore,
x+y=z
Let k be the common factor of x and y.
k is odd _(since x and y are odd)
Therefore,
k(x'+y')=z
=> x'+ y'= m _(since k is a factor of z)
m is even _(since even÷odd=even)
Now x' and y' are prime numbers and m is even.
Hence, every even number can be expressed as the sum of two prime numbers.
Reference
Wikipedia