# A proof of Twin Prime Conjecture by Clement's theorem 

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#### Abstract

I proved the Twin Prime Conjecture by using Clement's theorem. I was able to transform below. ( n is positive integer) $4 \times(6 n-2)!+6 n+3 \equiv 0 \quad(\bmod \quad(6 n-1)(6 n+1))$.


Even if the number(n) reaches the limit, use $\mathrm{n}=\mathrm{x}+1, \mathrm{n}=\mathrm{x}+2 \ldots \mathrm{n}=\mathrm{x}+18$ from $\mathrm{n}=\mathrm{x}$.
By $\mathrm{n}=\mathrm{x}+18$, new twin prime numbers are found.
In this way, even larger twin primes are born.
Repeat this.
That is, Twin Primes exist forever.

## key words

Twin Primes Conjecture, Clement's theorem, forever

## Introduction

There are no primes that are not ( $6 \mathrm{n}-1$ )type or $(6 n+1)$ type, except 2 and 3 .

## Discussion

Transformed the expression of Clement's theorem below. (n is positive integer)
$4 \times(6 n-2)!+6 n+3 \equiv 0 \quad(\bmod (6 n-1)(6 n+1))$.
Even if the number(n) reaches the limit, use $\mathrm{n}=\mathrm{x}+1, \mathrm{n}=\mathrm{x}+2 \ldots \mathrm{n}=\mathrm{x}+18$ from $\mathrm{n}=\mathrm{x}$.
By $\mathrm{n}=\mathrm{x}+18$, new twin prime numbers are found.

[^0]In this way, even larger twin primes are born.

Repeat this.
That is, Twin Primes exist forever.
Twin Primes exist forever. Proof complete.


## References

[1] John Derbyshire.: Prime Obsession: Bernhard Riemann and The Greatest Unsolved Problem in Mathematics, Joseph Henry Press, 2003
[2] Marcus du Sautoy.: The Music of The Primes, Zahar Press, 2007
[3] https://mathmatik.jp/wp-content/uploads/2017/04/Clement.pdf


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