Twin Prime Conjecture

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Abstract

I proved the Twin Prime Conjecture.

All Twin Primes are executed in hexadecimal notation. It does not change in a huge number (forever huge number).

In the hexagon, prime numbers are generated only at [6n -1] [6n+1]. (n is a positive integer)

The probability that a twin prime will occur is 6/5 times the square of the probability that a prime will occur. If the number is very large, the probability of generating a prime number is low, but since the prime number exists forever, the probability of generating a twin prime number is very low, but a twin prime number is produced.

That is, twin primes exist forever.

key words

Hexagonal circulation, Twin Prime, 6/5 times the square of the probability

Introduction

In this paper, it is written in advance that 2 and 3 are omitted from prime numbers.

The prime number is represented as (6n -1) or (6n+1). And, n is positive integer.

All Twin Primes are combination of [6n -1] and [6n+1].
That is, all Twin Primes are a combination of 5th angle and 1th angle.

(n is positive integer)

1th angle is [6n+1].
5th angle is [6n -1].

(6n -2), (6n), (6n+2) in are even numbers.
(6n -1), (6n+1), (6n+3) are odd numbers.

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Prime numbers are (6n -1) or (6n+1). Except 2 and 3. (n is positive integer).
The following is a prime number.
There are no prime numbers that are not (6n -1) or (6n+1).
5 ——— 6n -1 (Twin prime)
7 ——— 6n+1
11 ——— 6n -1 (Twin prime)
13 ——— 6n+1
17 ——— 6n -1 (Twin prime)
19 ——— 6n+1
23 ——— 6n -1
29 ——— 6n -1 (Twin prime)
31 ——— 6n+1
37 ——— 6n+1
41 ——— 6n -1 (Twin prime)
43 ——— 6n+1
....
....

There are 166 prime numbers from 5 to 1000. Probability is $\frac{166}{996}$.
In this, there are 34 twin prime numbers. Probability is $\frac{34}{996}$=0.034136546...
and $[\frac{166}{996}]^2 \times \frac{6}{5} = 0.0333333...$

As a result of adding 1000 in this way. There are 3536 prime numbers from 5 to 33000.
Probability is $\frac{3536}{32996}$.
In this, there are 455 twin prime numbers. Probability is $\frac{455}{32996}$ =0.01378955...
and $[\frac{3536}{32996}]^2 \times \frac{6}{5} = 0.013781078...$

There are 3536+1137=4673 prime numbers from 5 to 45000.
Probability is $\frac{4673}{44996}$.
In this, there are 455+127=582 twin prime numbers. Probability is $\frac{582}{44996}$ =0.012934483...
and $[\frac{4673}{44996}]^2 \times \frac{6}{5}$=0.01294276...

It seems that there are several miscount. I would like to request a close examination at a research institution such as a university.

$\frac{6}{5}$ is necessary as a correction value. This is because if one of the hexagons is identified as a prime number, the probability that the remaining corner is a prime number increases by 6/5 times the simple square.

To put it simply, one of the 6 corners that should be true is occupied, and 5 are left. Therefore, the probability increases to 6/5.

The infinite number of twin primes can be said to be based on the known concept that the generation probability of a prime number is low when the number is large, but it always occurs[3].

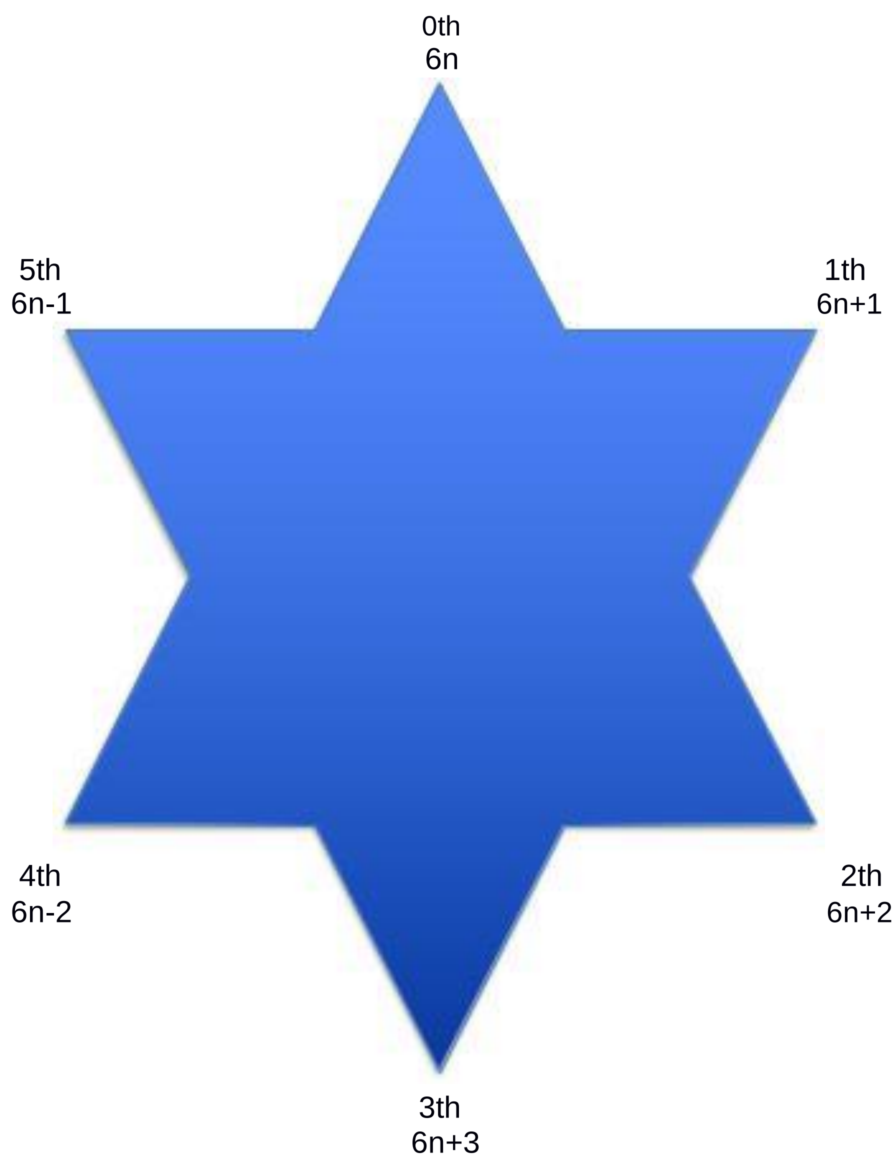
The probability of occurrence of twin prime numbers is very low when the number is large, but it always occurs as long as the prime number is generated.

That is, as long as prime numbers are generated, twin prime numbers are generated.

There are 2453 prime numbers from 45001 to 72000.
In this, there are 257 twin prime numbers.
There are 4673+2426=7126 prime numbers from 5 to 72000.
In this, there are 582+257=839 twin prime numbers. Probability is $\frac{839}{71996}$=0.011653425...
and $[\frac{7126}{71996}]^2 \times \frac{6}{5} = 0.011755907...$

There are 2470 prime numbers from 72001 to 100000.
In this, there are 267 twin prime numbers.
There are 7120+2470=9590 prime numbers from 5 to 100000.
In this, there are 839+267=1106 twin prime numbers. Probability is $\frac{1106}{99996} = 0.011060442...$
and $[\frac{9590}{99996}]^2 \times \frac{6}{5} = 0.0110370549...$

Calculation depends on WolframAlpha.


0th
6n
5th
6n-1
1th
6n+1
4th
6n-2
2th
6n+2
3th
6n+3

Discussion

First, say 6n -1 = 6n+5

$(6n-1) \times 5$ =6(5n -1)+1= 1th-angle.
$(6n+1) \times 5$ =6(5n)+5= 5th-angle.
and
$(6n-1) \times 7$ =6(7n -2)+5= 5th-angle.
$(6n+1) \times 7$ =6(7n+1)+1= 1th-angle.
and
$(6n-1) \times 11$ =6(11n -2)+1= 1th-angle.
$(6n+1) \times 11$ =6(11n+1)+5= 5th-angle.
and
$(6n-1) \times 13$ =6(13n -3)+5= 5th-angle.
$(6n+1) \times 13$ =6(13n+2)+1= 1th-angle.
and
$(6n-1) \times 17$ =6(17n -3)+1= 1th-angle.
$(6n+1) \times 17$ =6(17n+2)+1= 5th-angle.
and
$(6n-1) \times 19$ =6(19n -4)+5= 5th-angle.
$(6n+1) \times 19$ =6(19n+3)+1= 1th-angle.
and
$(6n-1) \times (6n-1)$ = 6($6n^2$ -2n)+1= 1th-angle.
$(6n-1) \times (6n+1)$ = 6($6n^2$ -1)+5= 5th-angle.
and
$(6n+1) \times (6n-1)$ = 6($6n^2$ -1)+5= 5th-angle.
$(6n+1) \times (6n+1)$ = 6($6n^2$+2n)+1= 1th-angle.

In this way, prime multiples of 5 or 7 or more of prime numbers fill 1th angle, 5th angle, and the location of prime numbers becomes narrower.

However, every time the hexagon is rotated once, the number of locations where the prime number exists increases by two.

But, the number of prime numbers increases as the number increases, the narrowing of the gorge is severe with large numbers.
The narrowing becomes very strong as the number grows.

The probability that (6n -1)(6n+1) combinations exist is 6/5 times the square of the probability of obtaining one prime number by rotating the hexagon once.

The probability that (6n -1)(6n+1) combinations exist becomes very low when the number is huge.
It probability is very close to 0, but greater than 0.

The narrowing of the generation of prime numbers cannot fill all the locations of prime numbers, that is, (6n -1)(6n+1).

Because prime numbers exist forever.

The twin prime number is the same number of prime numbers (6n -1)(6n+1).
It is 6/5 times the square of the probability that a prime number will occur.

The probability that a twin prime will occur is less likely to occur because it is 6/5 times the square of the probability that a prime will occur in a huge number, where the probability that a prime will occur is low from the equation (1).
while a prime number is generated, it can be generated.

$$\pi(x) \sim \frac{x}{\log x} \quad (x \to \infty) \tag{1}$$

That is, twin primes exist forever.

Proof end.

References

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Postscript

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