A proof of Twin Prime Conjecture by 30 intervals etc.

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Abstract

If (p,p+2) are twin primes, (p+30, p+2+30) or (p+60, p+2+60) or (p+90, p+2+90) or (p+120, p+2+120) or (p+150, p+2+150)) or (p+180, p+2+180) or (p+210, p+2+210) or (p+240, p+2+240)....... is to be a twin primes.

There are three type of twin primes, last numbers are (1, 3)..(7, 9)..(9, 1).

They are lined up at intervals such as 30 or 60 or 90 or 120 or 150 or 180 or 210 or 240 or 270 or 300 etc. That is, it is a multiple of 30.

Repeat this.

And the knowledge about prime numbers is also taken into account.
That is, Twin Primes exist forever.

key words
Twin Primes Conjecture, 30 intervals, forever

Introduction

First of all, the first twin prime number (5, 7) is omitted.

Twin Primes are (6n-1, 6n+1).

If you n=2, (11, 13).
If you n=3, (17, 19).
If you n=5, (29, 31).

Discussion

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There are three type of twin primes, last numbers are (1, 3) .. (7, 9)..(9, 1).
They are lined up at intervals such as 30 or 60 or 90 or 120 or 150 or 180 or 210 or 240 or 270 or 300 or 330 or 360 or 390 or 420 or 450 or 480 or 510 or 540 or 570 or 600 or 630 etc.
That is, it is a multiple of 30.

If (p,p+2) are twin primes, (p+30, p+2+30) or (p+60, p+2+60) or (p+90, p+2+90) or (p+120, p+2+120) or (p+150, p+2+150) or (p+180, p+2+180) or (p+210, p+2+210) or (p+240, p+2+240). . . . . . . is to be a twin prime.

Example,
(1031, 1033)...30...(1061, 1063)...30...(1091, 1093)...210...(1301, 1303)...150...(1451, 1453)...30...(1481, 1483)...390...(1871, 1873)...60...(1931, 1933)...150...(2081, 2083)...30...(2111, 2113)...30...(2141, 2143)...240...(2381, 2383)...210...(2591, 2593)...120...(2711, 2713)...90...(2801, 2803)...450...(3251, 3253)...120...(3371, 3373)...90...(3461, 3463)...120...(3581, 3583)...240...(3821, 3823)...

(1277, 1279)...150...(1427, 1429)...60...(1487, 1489)...120...(1607, 1609)...60...(1667, 1669)...30...(1697,1699)...90...(1787, 1789)...90...(1877, 1879)...150...(2027, 2029)...60...(2087, 2089)...150...(2237, 2239)...30...(2267, 2269)...390...(2657, 2659)...30...(2687, 2689)...480...(3167, 3169)...90...(3257, 3259)...210...(3467, 3469)...60...(3527, 3529)...30...(3557, 3559)...210...(3767, 3769)...

(1019, 1021)...30...(1049, 1051)...180...(1229, 1231)...90...(1319, 1321)...300...(1619, 1621)...330...(1949, 1951)...180...(2129, 2131)...180...(2309, 2311)...30...(2339, 2341)...210...(2549, 2551)...180...(2729, 2731)...60...(2789, 2791)...210...(2999, 3001)...120...(3119, 3121)...180...(3299, 3301)...60...(3359, 3361)...30...(3389, 3391)...150...(3539, 3541)...

The twin primes is a combination of (6n -1)(6n+1), (30m-1)(30m+1), (30m+11)(30m+13) and (30m+17)(30m+19).

If n=2 and m=0, (6n-1)=11 and (6n+1)=13, (30m+11)=11 and (30m+13)=13.

If n=3 and m=0, (6n-1)=17 and (6n+1)=19, (30m+17)=17 and (30m+19)=19.

If n=5 and m=1, (6n-1)=29 and (6n+1)=31, (30m-1)=29 and (30m+1)=31.

If n=7 and m=1, (6n-1)=41 and (6n+1)=43, (30m+11)=41 and (30m+13)=43.

If n=12 and m=2, (6n-1)=71 and (6n+1)=73, (30m+11)=71 and (30m+13)=73.

If n=17 and m=3, (6n-1)=101 and (6n+1)=103, (30m+11)=101 and (30m+13)=103.

If n=18 and m=3, (6n-1)=107 and (6n+1)=109, (30m+17)=107 and (30m+19)=109.

If n=23 and m=4, (6n-1)=137 and (6n+1)=139, (30m+17)=137 and (30m+19)=139.

If n=25 and m=5, (6n-1)=149 and (6n+1)=151, (30m-1)=149 and (30m+1)=151.

If n=30 and m=6, (6n-1)=179 and (6n+1)=181, (30m-1)=179 and (30m+1)=181.

If n=32 and m=6, (6n-1)=191 and (6n+1)=193, (30m+11)=191 and (30m+13)=193.

If n=33 and m=6, (6n-1)=197 and (6n+1)=199, (30m+17)=197 and (30m+19)=199.

If n=33 and m=7, (6n-1)=227 and (6n+1)=229, (30m+17)=227 and (30m+19)=229.

If n=35 and m=8, (6n-1)=239 and (6n+1)=241, (30m-1)=239 and (30m+1)=241.

If n=45 and m=9, (6n-1)=269 and (6n+1)=271, (30m-1)=269 and (30m+1)=271.

If n=47 and m=9, (6n-1)=281 and (6n+1)=283, (30m-1)=281 and (30m+1)=283.

If n=52 and m=10, (6n-1)=311 and (6n+1)=313, (30m+11)=311 and (30m+13)=313.

If n=58 and m=11, (6n-1)=347 and (6n+1)=349, (30m+17)=347 and (30m+19)=349.

Repeat this.

Even if you add up to (p+360, p+2+360) and there are no twin primes, if you add 30 more and more, you will have twins.

And, as can be seen from the equation below, even if the number becomes large, the degree of production of primes only decreases little by little.

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

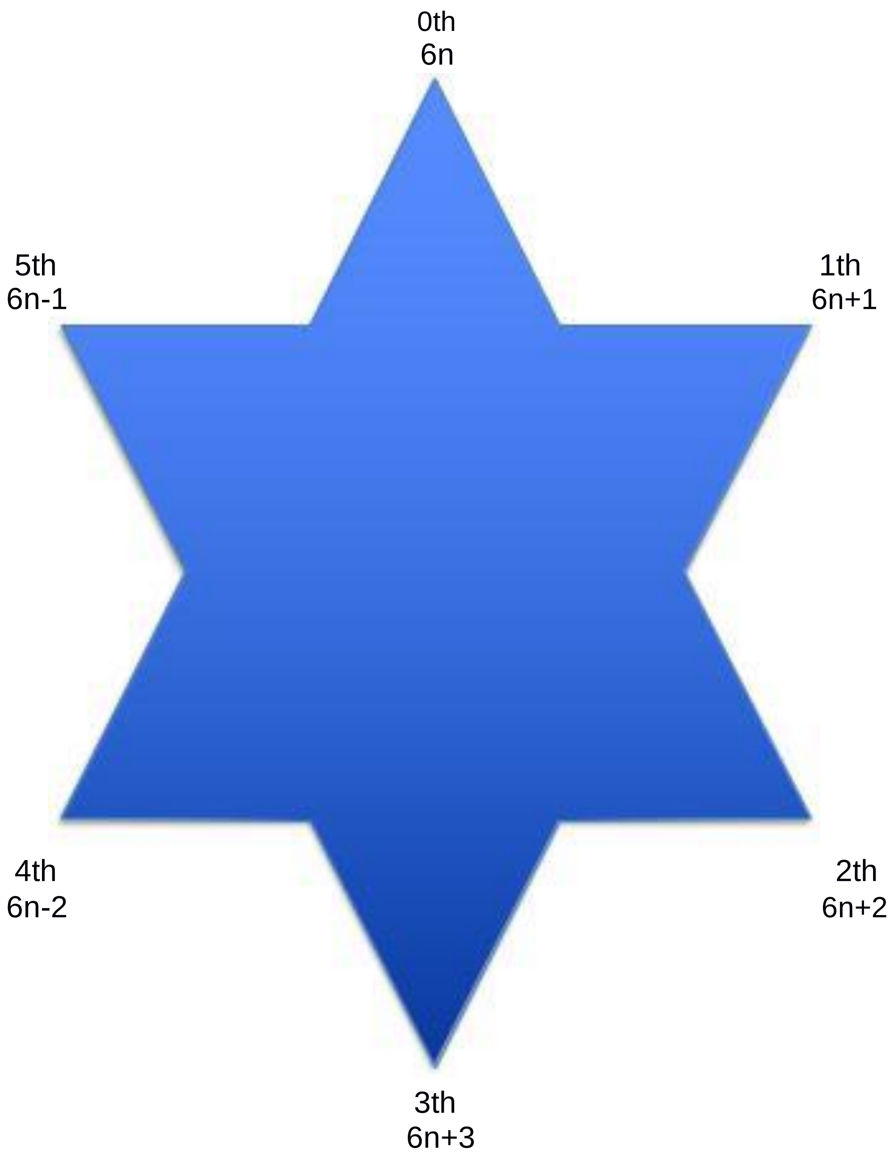
And,

$$\liminf_{n\to\infty} \frac{p_{n+1} - p_n}{\log p_n} = 0. \tag{2}$$

And,
Twin Primes are slightly lower than 4/3 times the square of the probability of primes is the probability of Twin Primes.

That is
$[Probability\ of\ the\ Existence\ of\ primes]^2 \times 4/3=$
(Probability of the Existence of Twin Primes)

Proof complete.


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

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