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Proposed Structure of Prime Numbers

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Opinion

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INTRODUCTION

Ulam's Spiral demonstrates an order to prime numbers which is visual. It shows prime numbers organizing in diagonals. The diagonals appear if you begin the spiral with '1' or with any other number. This characteristic implies that prime numbers can be visualized; that there is an order which is easily recognizable when prime numbers are plotted relative to one another, as in the case of Ulam's Spiral. In Ulam's Spiral there is a partial order: while it does show a clear order exists, there is still much randomness. My idea claims to have discovered the precise context and rules which describe prime number distribution, and it does so by describing prime numbers visually/spatially.

When organized in the simple and justified way I describe, there is consistency and order which far exceeds the probability of randomness. Namely, there is a convergence at the origin line of two separate number series, and an infinitely repeating loop behavior. These behaviours emerge despite the fact that I have only plotted to '433'.

The rules for plotting: '1'-'23' are singularly unique; I describe them in the link below. For the remainder of all other definable whole numbers, the following rules apply [1].

- 'space' is represented by composites; twin primes and isolated primes occupy 'space' (they share coordinates with composites).
- If a twin prime appears, reverse distribution of composites in the 'x-dimension' and advance 1 unit in the 'y'.
- If an isolated prime appears, advance 1 unit in the 'y' but retain the x direction.
- Beginning with '23' create identical but opposite sides of the form in regards to the 'x'-dimension; what happens on one side is copied exactly on the other in terms of 'y'-space distribution, and also in terms of 'x'-space distribution except in the 'x'-dimension the direction is reversed.
- If two twin primes appear in the numbers series without a composite separating them, insert one side of a repeat of the structure beginning with '23' (see 191,193;197,199 in 'bottom'). Its 'x' direction is determined by the preceding twin prime [2].

In the proceeding links the reader can view the illustration - which I refer to as a "Prime Form" - created by hand on graph paper to '433'.

Qualitative significance is demonstrated in 'bottom' where the "Prime Form" repeats itself and will continue to do so infinitely. It is also demonstrated in 'bottom' where two separate number series converge at the origin line.

I propose this as a new way of studying the distribution of prime numbers. Indeed, it appears we can now observe the prime numbers as they are, and not in another.

REFERENCES

1. Sheppard R (2015) An Aspect of My Prime Number Theory Simplified. Loser's Honesty.
2. Sheppard R (2015) R. Sheppard Prime Form Theory; Novel Prime Number Interpretation Method. Loser's Honesty.