Fibonacci Type Series Using Prime Sequence

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Abstract

In this research investigation, the author proposes Fibonacci Type Series Using Prime Sequence.

Theory

Fibonacci Series

The Fibonacci Series is generated as follows:
$F_0 = 0$ and $F_1 = 1$
Then, $F_n = F_{n-1} + F_{n-2}$

Prime Sequence

Prime Sequence is the sequence of integers that have no factors other than themselves and 1. That is, 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31,…..

Fibonacci Type Series Using Prime Sequence

Type a:

The Fibonacci Series is generated as follows:
$F_0 = 0$ and $F_1 = 2$
Then, $F_n = P_{n-1} + P_{n-2}$ where $P_1 = 2$ and P_k denotes the kth Prime with 2 as the First Prime.

Type b:

The Fibonacci Series is generated as follows:
$F_0 = 0$ and $F_1 = 1$
Then, $F_n = P_{n-1} + P_{n-2}$ where $P_1 = 2$ and P_k denotes the kth Prime with 1 as the First Prime.

References

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