

**Primes obtained deconcatenating with a group of k
digits of 0 the fibonorial numbers then adding or
subtracting 1**

Abstract. In this paper I state the following two conjectures: (I) For any k positive integer there exist a sequence having an infinity of prime terms obtained deconcatenating to the right with a group with k digits of 0 the fibonorial numbers and adding 1 to the resulted number; (II) for any k non-null positive integer there exist a sequence having an infinity of prime terms obtained deconcatenating to the right with a group with k digits of 0 the fibonorial numbers and subtracting 1 from the resulted number. It is known that fibonorial numbers are defined as the products of nonzero Fibonacci numbers.

The sequence of fibonorial numbers (A003266 in OEIS):

: 1, 1, 2, 6, 30, 240, 3120, 65520, 2227680,
122522400, 10904493600, 1570247078400,
365867569267200, 137932073613734400,
84138564904377984000, 83044763560621070208000,
132622487406311849122176000,
342696507457909818131702784000 (...)

Conjecture I:

For any k positive integer there exist a sequence having an infinity of prime terms p obtained deconcatenating to the right with a group with k digits of 0 the fibonorial numbers and adding 1 to the resulted number.

The sequence of primes p for k = 0:

: 2, 3, 7, 31, 241, 3121, 65521, 137932073613734399
(...)

The sequence of primes p for k = 1:

: 313, 6553,
1879127177606120717127879344567470740879360001 (...)

The sequence of primes p for k = 2:

: 841385649043779841 (...)

The sequence of primes p for k = 3:

: 1879127177606120717127879344567470740879361 (...)

Conjecture II:

For any k positive integer there exist a sequence having an infinity of prime terms p obtained deconcatenating to the right with a group with k digits of 0 the fibonorial numbers and subtracting 1 from the resulted number.

The sequence of primes p for $k = 0$:

: 5, 29, 239, 3119, 65519, 84138564904377983999 (...)

The sequence of primes p for $k = 1$:

: 2, 23, 311, 6551, 13793207361373439 (...)

The sequence of primes p for $k = 2$:

: 1225223, 3658675692671 (...)

The sequence of primes p for $k = 3$:

: 53850147528658601390733638377270009021379819519(...)