Primes obtained concatenating with 1 to the left the terms of three back concatenated "powers of 3" sequences

Abstract. In this paper I state the following conjecture three conjectures: (I) there exist an infinity of primes p obtained concatenating to the left with 1 the terms of *back concatenated "powers of 3" sequence* (defined as the sequence obtained through the concatenation of powers of 3, in reverse order); such prime is, for example, 1243812793; (II) there exist an infinity of primes p obtained concatenating to the left with 1 the terms of *back concatenated "odd powers of 3" sequence* (defined as the sequence obtained through the concatenation of odd powers of 3, in reverse order); such prime is, for example, 1243273; (III) there exist an infinity of primes p obtained concatenating to the left with 1 the terms of *back concatenated "even powers of 3" sequence* (defined as the sequence obtained through the concatenation of even powers of 3, in reverse order); such prime is, for example, 147829695314415904965617298819.

Conjecture 1:

There exist an infinity of primes p obtained concatenating to the left with 1 the terms of *back concatenated "powers of 3" sequence* (defined as the sequence obtained through the concatenation of powers of 3, in reverse order); such prime is, for example, 1243812793.

The back concatenated "powers of 3" sequence:

: 3, 93, 2793, 812793, 243812793, 729243812793, 2187729243812793, 65612187729243812793 (...) and

The sequence of primes p:

: 13, 193, 1812793, 1243812793 (...)

Conjecture 2:

There exist an infinity of primes p obtained concatenating to the left with 1 the terms of *back concatenated "odd powers of 3" sequence* (defined as the sequence obtained through the concatenation of odd powers of 3, in reverse order); such prime is, for example, 1243273.

The back concatenated "odd powers of 3" sequence:

:   3,   273,   243273,   2187243273,   218724327319683,
17714721872437319683,   1594323177147218724327319683
(...) and

The sequence of primes p:

:   13, 1243273, 12187243273 (...)

Conjecture 3:

There exist an infinity of primes p obtained
concatenating to the left with 1 the terms of *back
concatenated "even powers of 3" sequence* (defined as the
sequence obtained through the concatenation of even
powers of 3, in reverse order); such prime is, for
example, 147829695314415904965617298919.

The back concatenated "even powers of 3" sequence:

:   9,   819,   729819,   6561729819,   6561729819,
590496561729819,   531441590496561729819,
4782969531441590496561729819 (...) and

The sequence of primes p:

:   19,   14782969531441590496561729819 (...)