Two conjectures on the quintets of numbers (p, p+10, p+30, p+40, p+60)

Abstract. In this paper I make the following two conjectures: (I) there exist an infinity of quintets of primes (p, p + 10, p + 30, p + 40, p + 60), where p is a prime of the form 6*k + 1; (II) there exist an infinity of primes of the form p\\(p + 10)\\(p + 30)\\(p + 40)\\(p + 60), where p is a number of the form 6*k + 1. I used the operator “\\” with the meaning “concatenated to”.

Conjecture 1 :

There exist an infinity of quintets of primes (p, p + 10, p + 30, p + 40, p + 60), where p is a prime of the form 6*k + 1.

The sequence of quintets of primes
(p, p + 10, p + 30, p + 40, p + 60):

: (7, 17, 37, 47, 67);
: (13, 23, 43, 53, 73);
: (43, 53, 73, 83, 103);
: (97, 107, 127, 137, 157);
: (379, 389, 409, 419, 439);
: (547, 557, 577, 587, 607);
(...)

Note that among the numbers obtained this way there exist quintets formed by four primes and a square of prime or quintets formed by four primes and a semiprime.

Conjecture 2 :

There exist an infinity of primes of the form p\\(p + 10)\\(p + 30)\\(p + 40)\\(p + 60), where p is a number of the form 6*k + 1. I used the operator “\\” with the meaning “concatenated to”.

The sequence of primes
p\\(p + 10)\\(p + 30)\\(p + 40)\\(p + 60):

: 717374767, 1929495979, 3747677797, 133143163173193, 139149169179199, 151161181191211, 241251271281301, 253263283293313, 271281301311331, 277287307317337, 343353373383403, 391401421431451, 427437457467487, 463473493503523, 487497517527547, 553563583593613
(...)

Note that many of the numbers obtained this way are semiprimes.