

## **Primes obtained deconcatenating with 1 or with 01 the Poulet numbers of the form $30k+1$ or $300k+1$**

**Abstract.** In this paper I state the following three conjectures: (I) There exist an infinity of primes q obtained deconcatenating to the right with 1 the Poulet numbers of the form  $30^*k + 1$  then subtracting 1 (example: from  $P = 997465414921$  is obtained  $q = 99746541491$ ); (II) There exist an infinity of primes q obtained deconcatenating to the right with 1 the Poulet numbers of the form  $30^*k + 1$  then adding 1 (example: from  $P = 996881835961$  is obtained  $q = 99688183597$ ); (III) There exist an infinity of primes q obtained deconcatenating to the right with 01 the Poulet numbers of the form  $300^*k + 1$  then subtracting 1 (example: from  $P = 999666754801$  is obtained  $q = 9996667547$ ).

### **Conjecture 1:**

There exist an infinity of primes q obtained deconcatenating to the right with 1 the Poulet numbers of the form  $30^*k + 1$  then subtracting 1 (example: from  $P = 997465414921$  is obtained  $q = 99746541491$ ).

#### **The sequence of primes q:**

: 269, 281, 467, 659 (....) 99768766931, 99787971653,  
99797119967, 99801898811, 99852315947, 99930863801,  
99985731071, 99746541491 (...),  
obtained from  $P = 2701, 2821, 4681, 6601$  (...)  
997687669321, 997879716541, 997971199681,  
998018988121, 998523159481, 999308638021,  
999857310721, 997465414921 (...)

### **Conjecture 2:**

There exist an infinity of primes q obtained deconcatenating to the right with 1 the Poulet numbers of the form  $30^*k + 1$  then adding 1 (example: from  $P = 996881835961$  is obtained  $q = 99688183597$ ).

#### **The sequence of primes q:**

: 271, 283, 547, 671 (...) 99754190929, 99804924937,  
99895342933, 99940765783, 99986301829,  
99703138417, 99702731311, 99688183597 (...),  
obtained from  $P = 2701, 2821, 5461, 6601$  (...)  
997541909281, 998049249361, 998953429321,  
999407657821, 999863018281, 997031384161,  
997027313101, 996881835961 (...)

**Conjecture 3:**

There exist an infinity of primes q obtained deconcatenating to the right with 01 the Poulet numbers of the form  $300^k + 1$  then subtracting 1 (example: from P = 999666754801 is obtained q = 9996667547).

**The sequence of primes q:**

: 2039 (...), 9968306903, 9978038783, 9979667011,  
9988536011, 9996667547 (...),  
obtained from P = 204001 (...), 996830690401,  
997803878401, 997966701201, 998853601201,  
999666754801 (...)