A new bold conjecture about a way in which any prime can be written

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Abstract. In this paper I make a conjecture which states that any prime greater than or equal to 53 can be written at least in one way as a sum of three odd primes, not necessarily distinct, of the same form from the following four ones: 10k + 1, 10k + 3, 10k + 7 or 10k + 9.

Conjecture:

Any prime greater than or equal to 53 can be written at least in one way as a sum of three odd primes, not necessarily distinct, of the same form from the following four ones: 10k + 1, 10k + 3, 10k + 7 or 10k + 9.

Verifying the conjecture:
(For the first few primes greater than or equal to 53)

(Note that we will not show all ways in which a prime can be written in the way mentioned but only one way, enough to confirm the conjecture)

: 53 = 11 + 11 + 31;
: 59 = 13 + 23 + 23;
: 61 = 7 + 17 + 37;
: 67 = 19 + 19 + 29;
: 71 = 17 + 17 + 37;
: 73 = 11 + 31 + 31;
: 79 = 13 + 23 + 43;
: 83 = 11 + 31 + 41;
: 89 = 23 + 23 + 23;
: 97 = 19 + 19 + 59;
: 101 = 17 + 17 + 67;
: 103 = 11 + 31 + 61;
: 107 = 19 + 29 + 59;
: 109 = 13 + 13 + 83;
: 113 = 11 + 31 + 71;
: 127 = 19 + 29 + 79;
: 131 = 7 + 17 + 107;
: 137 = 19 + 29 + 89;
: 139 = 13 + 13 + 113;
: 149 = 13 + 23 + 113;
: 151 = 7 + 7 + 137.

Conjecture:

There exist an infinity of primes p that can be written as p = 2*m + n, where m and n are distinct primes of the form 10k + 1.

Conjecture:

There exist an infinity of primes p that can be written as p = 2*m + n, where m and n are distinct primes of the form 10k + 3.

Conjecture:

There exist an infinity of primes p that can be written as p = 2*m + n, where m and n are distinct primes of the form 10k + 7.

Conjecture:

There exist an infinity of primes p that can be written as p = 2*m + n, where m and n are distinct primes of the form 10k + 9.