Any square of a prime larger than 11 can be written as 60n^2+90n+p where p prime or power of prime

Abstract. In this paper I make the following conjecture: Any square of a prime larger than 11 can be written as 60*n^2 + 90*n + p, where p prime or power of prime and n positive integer.

Conjecture:

Any square of a prime larger than 11 can be written as 60*n^2 + 90*n + p, where p prime or power of prime and n positive integer.

Verifying the conjecture:
(for the first fifteen primes larger than 11)

: 13^2 = 169 = 60*1^2 + 90*1 + 19;
: 17^2 = 289 = 60*1^2 + 90*1 + 139;
: 19^2 = 361 = 60*1^2 + 90*1 + 211;
: 23^2 = 529 = 60*1^2 + 90*1 + 379 = 60*2^2 + 90*2 + 109;
: 29^2 = 841 = 60*1^2 + 90*1 + 691 = 60*2^2 + 90*2 + 421 = 60*3^2 + 90*3 + 31;
: 31^2 = 961 = 60*1^2 + 90*1 + 811 = 60*2^2 + 90*2 + 541 = 60*3^2 + 90*3 + 151;
: 37^2 = 1369 = 60*4^2 + 90*4 + 7^2;
: 41^2 = 1681 = 60*1^2 + 90*1 + 1531 = 60*4^2 + 90*4 + 19^2;
: 43^2 = 961 = 60*1^2 + 90*1 + 1699 = 60*2^2 + 90*2 + 1429 = 60*3^2 + 90*3 + 1039 = 60*4^2 + 90*4 + 23^2;
: 47^2 = 2209 = 60*2^2 + 90*2 + 1789 = 60*3^2 + 90*3 + 1399;
: 53^2 = 2809 = 60*1^2 + 90*1 + 2659 = 60*2^2 + 90*2 + 2389 = 60*3^2 + 90*3 + 1999 = 60*4^2 + 90*4 + 1489 = 60*5^2 + 90*5 + 859 = 60*6^2 + 90*6 + 109;
: 59^2 = 3481 = 60*1^2 + 90*1 + 3331 = 60*2^2 + 90*2 + 3061 = 60*3^2 + 90*3 + 2671 = 60*4^2 + 90*4 + 2161 = 60*5^2 + 90*5 + 1531;
: 61^2 = 3721 = 60*1^2 + 90*1 + 3571 = 60*2^2 + 90*2 + 3301 = 60*4^2 + 90*4 + 7^4 = 60*6^2 + 90*6 + 1021 = 60*7^2 + 90*7 + 151;
: 67^2 = 4489 = 60*1^2 + 90*1 + 4339 = 60*4^2 + 90*4 + 3169 = 60*5^2 + 90*5 + 2539 = 60*6^2 + 90*6 + 1789 + 60*7^2 + 90*7 + 919;
: 71^2 = 5041 = 60*2^2 + 90*2 + 4621 = 60*3^2 + 90*3 + 4231 = 60*4^2 + 90*4 + 61^2 = 60*6^2 + 90*6 + 2341 + 60*7^2 + 90*7 + 1471.