Formula for generating c-primes and m-primes based on squares of primes

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Abstract. In this paper I present a formula, based on squares of primes, which seems to generate a large amount of c-primes and m-primes (I defined the notions of c-primes and m-primes in my previous paper "Conjecture that states that any Carmichael number is a cm-composite").

Observation:

The formula m = (5*n + 1)*p^2 – 5*n, where p is prime, p ≥ 7, and n positive integer, seems to generate often c-primes and m-primes.

Examples:

: For n = 1 we have the formula m = 6*p^2 - 5 and the following values for m for the first twelve such primes:
  : for p = 7, m = 289 = 17^2, so m is c-prime (square of prime); also 17 + 17 – 1 = 33 = 3*11 and 3 + 11 – 1 = 13, prime, so m is m-prime too;
  : for p = 11, m = 721 = 7*103 and 103 – 7 + 1 = 97, prime, so m is c-prime; also 103 + 7 – 1 = 109, prime, so m is m-prime too;
  : for p = 13, m = 1009, prime, so m is implicitly c-prime and m-prime;
  : for p = 17, m = 1729, which is not semiprime so it can't be c-prime or m-prime (but it is, as I conjectured in the paper mentioned in Abstract, as a Carmichael number, cm-composite – notion defined in the same paper);
  : for p = 19, m = 2161, prime, so m is implicitly c-prime and m-prime;
  : for p = 23, m = 3169, prime, so m is implicitly c-prime and m-prime;
  : for p = 29, m = 5041 = 71^2, so m is c-prime (square of prime); also 71 + 71 – 1 = 141 = 3*47 and 3 + 47 – 1 = 49 = 7*7 and 7 + 7 – 1 = 13, prime, so m is m-prime too;
  : for p = 31, m = 5761 = 7*823 and 823 – 7 + 1 = 817 = 19*43 and 43 - 19 + 1 = 25 = 5^2, square of prime, so m is c-prime; also 823 + 7 – 1 = 829, prime, so m is m-prime too;

: for p = 37, m = 8209, prime, so m is implicitly c-prime and m-prime;
: for p = 41, m = 10081 = 17*593 and 593 - 17 + 1 = 577, prime, so m is c-prime;
: for p = 43, m = 11089 = 13*853 and 853 - 13 + 1 = 841 = 29^2, so m is c-prime; also 853 + 13 - 1 = 865 = 5*173 and 5 + 173 - 1 = 177 = 3*59 and 3 + 59 - 1 = 61, prime, so m is m-prime too;
: for p = 47, m = 13249, prime, so m is implicitly c-prime and m-prime.

: For n = 2 we have the formula m = 11*p^2 - 10 and the following values for m for the first twelve such primes:
: for p = 7, m = 529 = 23^2, so m is c-prime (square of prime);
: for p = 11, m = 1321 = 7*103 and 103 - 7 + 1 = 97, prime, so m is c-prime; also 103 + 7 - 1 = 109, prime, so m is m-prime too;
: for p = 13, m = 1849 = 43^2, so m is c-prime (square of prime); also 43 + 43 - 1 = 85 = 5*17 and 5 + 17 - 1 = 21 = 3*7 and 3 + 7 - 1 = 9 = 3*3 and 3 + 3 - 1 = 5, prime, so m is also m-prime;
: for p = 17, m = 3169, prime, so m is implicitly c-prime and m-prime;
: for p = 19, m = 3961 = 17*233 and 233 - 17 + 1 = 217 = 7*31 and 31 - 7 + 1 = 25 = 5^2, square of prime, so m is c-prime; also 233 + 17 - 1 = 249 = 3*83 and 3 + 83 - 1 = 85, so m is m-prime too (see above);
: for p = 23, m = 5809 = 37*157 and 157 - 37 + 1 = 121 = 11^2, square of prime, so m is c-prime; also 157 + 37 - 1 = 193, prime, so m is m-prime too;
: for p = 29, m = 9241, prime, so m is implicitly c-prime and m-prime;
: for p = 31, m = 10561 = 59*179 and 179 - 59 + 1 = 121 = 11^2, square of prime, so m is c-prime;
: for p = 37, m = 15049 = 101*149 and 149 - 101 + 1 = 49 = 7^2, square of prime, so m is c-prime; also 149 + 101 - 1 = 249 = 3*83 and 3 + 83 - 2 = 85 so m is m-prime too (see above);
: for p = 41, m = 18481, prime, so m is implicitly c-prime and m-prime;
: for p = 43, m = 20329 = 29*701 and 701 - 29 + 1 = 673, prime, so m is c-prime;
: for p = 47, m = 24289 = 101*227 and 227 - 101 + 1 = 127, prime, so m is c-prime; also 101 + 227 - 1 = 327 = 3*109 and 3 + 109 - 1 = 111 = 3*37 and 3 + 37 - 1 = 39 = 3*13 and 3 + 13 - 1 = 15 = 3*5 and 3 + 5 - 1 = 7, prime, so m is m-prime too.