Three cubic polynomials that generate sequences of Poulet numbers

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Abstract. In this paper I present three cubic polynomials that generate (probably infinite) sequences of Poulet numbers.

I.

Poulet numbers of the form 240*n^3 – 2708*n^2 + 10172*n - 12719:

: 340561, 2299081, 4335241, 8041345, 32085041, 153927961, 321524281 (...)

These numbers were obtained for the following values of n:

: 15, 25, 30, 36, 55, 90, 114 (...)

Conjecture:

There are infinite many Poulet numbers of the form 240*n^3 – 2708*n^2 + 10172*n - 12719 (see A182132 posted by me on OEIS for a subsequence of the sequence from above, i.e. Carmichael numbers of the form (30*n – 7)*(90*n – 23)*(300*n – 79).

II.

Poulet numbers of the form 80*n^3 + 788*n^2 + 2584*n + 2821:

: 2821, 63973, 285541, 488881, 7428421(...)

These numbers were obtained for the following values of n:

: 0, 6, 12, 15, 42 (...)

Conjecture:

There are infinite many Poulet numbers of the form 80*n^3 + 788*n^2 + 2584*n + 2821 (see A182085 posted by me on OEIS for a subsequence of the sequence from above, i.e. Carmichael numbers of the form (30*n + 7)*(60*n + 13)*(150*n + 31).

III.

Poulet numbers of the form 120*n^3 - 3148*n^2 + 27522*n - 80189:

: 29341, 1152271, 11875821, 16158331, 34901461 (...)

These numbers were obtained for the following values of n:

: 15, 30, 55, 60, 75 (...)

Conjecture:

There are infinite many Poulet numbers of the form 120*n^3 - 3148*n^2 + 27522*n - 80189 (see A182133 posted by me on OEIS for a subsequence of the sequence from above, i.e. Carmichael numbers of the form (30*n - 17)*(90*n - 53)*(150*n - 89).