Seven sequences of odd abundant numbers of the form 2*k*P-(30+290*n)*k-315 where P Poulet number

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Abstract. In this paper I present seven sequences of numbers of the form 2*k*P – (30 + 290*n)*k – 315, where P is Poulet number and n and k naturals; I conjecture that two of them have all the terms odd abundant numbers (corresponding to [P, n] = [645, 0] and [1105, 1]) and the other five (corresponding to [P, n] = [11305, 4], [16705, 13], [11305, 25], [10585, 28] and [16705, 34]) have an infinity of terms odd abundant numbers.

Seven sequences of numbers of the form 2*k*P – (30 + 290*n)*k – 315

(where P is Poulet number and n and k naturals**)**

Conjectures: the Sequences 1-2 have all the terms odd abundant numbers; the Sequences 3-7 have an infinity of terms odd abundant numbers.

Sequence 1: 2*k*645 – 30*k - 315

The first 10 terms: 945, 2205, 3465, 4725, 5985, 7245, 8505, 9765, 11025, 12285 (all ten are odd abundant numbers)

Sequence 2: 2*k*1105 – 320*k - 315

The first 10 terms: 1575, 3465, 5355, 7245, 9135, 11025, 12915, 14805, 16695, 18585 (all ten are odd abundant numbers)

Sequence 3: 2*k*11305 – 1190*k - 315

The first 10 terms: 21105, 42525, 63945, 85365, 106785, 128205, 149625, 171045, 192465, 213885 (all beside 85365 are odd abundant numbers)

Sequence 4: 2*k*16705 – 3800*k - 315

The first 10 terms: 29295, 58905, 88515, 118125, 147735, 177345, 206955, 236565, 266175, 295785 (seven of them are odd abundant numbers)

Sequence 5: 2*k*11305 – 7280*k - 315

The first 10 terms: 15015, 30345, 45675, 61005, 76335, 91665, 106995, 122325, 137655, 152985 (four of them are odd abundant numbers)

Sequence 6: 2*k*10585 – 8150*k - 315

The first 10 terms: 12705, 25725, 38745, 51765, 64785, 77805, 90825, 103845, 116865, 129885 (six of them are odd abundant numbers)

Sequence 7: 2*k*16705 – 9890*k - 315

The first 10 terms: 23205, 46725, 70245, 93765, 117285, 140805, 164325, 187845, 211365, 234885 (three of them are odd abundant numbers)