

- Consider the sequence of pairs of twin primes known as [Oeis A077800](#)

{3, 5, 5, 7, 11, 13, 17, 19, 29, 31, 41, 43, 59, 61, 71, 73, 101, 103, 107, 109, 137, 139, 149, 151, 179, 181, 191, 193, 197, 199, 227, 229, 239, 241, 269, 271, 281, 283, 311, 313, 347, 349, 419, 421, 431, 433, 461, 463, 521, 523, 569, 571, 599, 601, 617, 619}

we plan to build a sieve to find all pairs of existing twin primes,

- for this purpose we can use the series [Oeis A014574](#) (Average of twin prime)

{4, 6, 12, 18, 30, 42, 60, 72, 102, 108, 138, 150, 180, 192, 198, 228, 240, 270, 282, 312, 348, 420, 432, 462, 522, 570, 600, 618, 642, 660, 810, 822, 828, 858, 882, 1020, 1032, 1050, 1062, 1092, 1152, 1230, 1278, 1290, 1302, 1320, 1428, 1452, 1482, 1488, 1608}

- each element of [Oeis A014574](#) can be obtained from the series ([Oeis A047229](#) without 0,2,3) $a(n) = (1/4) * (6^n + (-i)^{(n+1)} + i^{(n+1)} + 12)$ where $i = \sqrt{-1}$.

{4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 26, 27, 28, 30, 32, 33, 34, 36, 38, 39, 40, 42, 44, 45, 46, 48, 50, 51, 52, 54, 56, 57, 58, 60, 62, 63, 64, 66, 68, 69, 70, 72, 74, 75, 76, 78, 80, 81, 82, 84...}

- [\(Oeis A047229](#) without 0,2,3) can be subdivided into 3 sub-sequences,

{4,6,8,9,10,12,14,15,16,18,20,21,22,24,26,27,28,30,32,33,34,36,38,39,40,42,44,45,46,48,50,51,52,54,56,57,58,60,62,63,64,66,68,69,70,72,74,75,76,78,80,81,82...}

- leaving momentarily the sub-sequence of the odd numbers, let's focus on [Oeis A047229](#) without 0,2,3) and [Oeis A014574](#) as they contain all the par values

[OeisA167692](#)

{8,10,14,16,20,22,24,26,28,32,34,36,38,40,44,46,48,50,52,54,56,58,62,64,66,68,70,74,76,78,80,82,84,86,88,90,92,94,96,98,100,104,106,110,112,114,116,118,120,122,124,126,128,130,132,134,136,140,142,144,146,148,152,154,156,158,160,162,164,166,168,170,172,174,176,178,182,184,186,188,190,194,196,200,202,204,206,208,210,212,214,216,218,220,222,224,226,230,232,234,236,238,242,244,246,248,250,252,254,256,258,260,262,264,266,268,272,274,276,278,280,284,286,288,290,292,294,296,298,300,302,304,306,308,310,314,316,318,320,322,324,326,328,330,332,334,336,338,340,342,344,346,350,352,354,356,358,360,362,364,366,368,370,372,374,376,378,380,382,384,386,388,390,392,394,396,398,400,402,404,406,408,410,412,414,416,418,422,424,426,428,430,434,436,438,440,442,444,446,448,450,452,454,456,458,460,464,466,468,470,472,474,476,478,480,482,484,486,488,490,492,494,496,498,500,502,504,506,508,510,512,514,516,518,520,524,526,528,530,532,534,536,538,540,542,544,546,548,550,552,554,556,558,560,562,564,566,568,572,574,576,578,580,582,584,586,588,590,592,594,596,598,602,604,606,608,610,612,614,616,620,622,624,626,628,630,632,634,636,638,640,644,646,648,650,652,654,656,658,662,664,666,668,670,672,674,676,678,680,682,684,686,688,690,692,694,696,698,700,702,704,706,708,710,712,714,716,718,720,722,724,726,728,730,732,734,736,738,740,742,744,746,748,750,752,754,756,758,760,762,764,766,768,770,772,774,776,778,780,782,784,786,788,790,792,794,796,798,800,802,804,806,808,812,814,816,818,820,824,826,830,832,834,836,838,840,842,844,846,848,850,852,854,856,860,862,864,866,868,870,872,874,876,878,880,884,886,888,890,892,894,896,898,900,902,904,906,908,910,912,914,916,918,920,922,924,926,928,930,932,934,936,938,940,942,944,946,948,950,952,954,956,958,960,962,964,966,968,970,972,974,976,978,980,982,984,986,988,990,992,994,996,998,1000...}

- about [Oeis A167692](#) we ask the question: there is a logical scheme that allows you to find all of them
- elements in order to exclude them from the remaining equal terms of [Oeis A047229](#) without 0,2,3) and highlight the elements of [Oeis A014574](#)?

To answer the question, proceed with adding 1 to each term of **Oeis A167692**:

Oeis A167692 (n+1)

{9,11,15,17,21,23,25,27,29,33,35,37,39,41,45,47,49,51,53,55,57,59,63,65,67,69,71,75,77,79,81,83,85,87,89,91,93,95,97,99,101,105,107,111,113,115,117,119,121,123,125,127,129,131,133,135,137,141,143,145,147,149,153,155,157,159,161,163,165,167,169,171,173,175,177,179,183,185,187,189,191,195,197,201,203,205,207,209,211,213,215,217,219,221,223,225,227,231,233,235,237,239,243,245,247,249,251,253,255,257,259,261,263,265,267,269,273,275,277,279,281,285,287,289,291,293,295,297,299,301,303,305,307,309,311,315,317,319,321,323,325,327,329,331,333,335,337,339,341,343,345,347,351,353,355,357,359,361,363,365,367,369,371,373,375,377,379,381,383,385,387,389,391,393,395,397,399,401,403,405,407,409,411,413,415,417,419,423,425,427,429,431,435,437,439,441,443,445,447,449,451,453,455,457,459,461,465,467,469,471,473,475,477,479,481,483,485,487,489,491,493,495,497,499,501,503,505,507,509,511,513,515,517,519,521,525,527,529,531,533,535,537,539,541,543,545,547,549,551,553,555,557,559,561,563,565,567,569,573,575,577,579,581,583,585,587,589,591,593,595,597,599,603,605,607,609,611,614,615,617,621,623,625,627,629,631,633,635,637,639,641,645,647,649,651,653,655,657,659,663,665,667,669,671,673,675,677,679,681,683,685,687,689,691,693,695,697,699,701,703,705,707,709,711,713,715,717,719,721,723,725,727,729,731,733,735,737,739,741,743,745,747,749,751,753,755,757,759,761,763,765,767,769,771,773,775,777,779,781,783,785,787,789,791,793,795,797,799,801,803,805,807,809,813,815,817,819,821,825,827,831,833,835,837,839,841,843,845,847,849,851,853,855,857,861,863,865,867,869,871,873,875,877,879,881,885,887,889,891,893,895,897,899,901,903,905,907,909,911,913,915,917,919,921,923,925,927,929,931,933,935,937,939,941,943,945,947,949,951,953,955,957,959,961,963,965,967,969,971,973,975,977,979,981,983,985,987,989,991,993,995,997,999,1001...}

analyzing the sequence **Oeis A167692 (n+1)** it is possible to find 5 sub-sequences that allow to calculate all the elements. They are:

"Aaaaaaa" (#temporary name)

{9, 21, 27, 33, 39, 45, 51, 57, 63, 69, 75, 81, 87, 93, 99, 105, 111, 117, 123, 129, 135, 141, 147, 153, 159, 165, 171, 177, 183, 189, 195, 201, 207, 213, 219, 225, 231, 237, 243, 249, 255, 261, 267, 273, 279, 285, 291, 297, 303, 309, 315, 321, 327, 333, 339, 345, 351, 357, 363, 369, 375, 381, 387, 393, 399, 405, 411, 417, 423, 429, 435, 441, 447, 453, 459, 465, 471, 477, 483, 489, 495, 501, 507, 513, 519, 525, 531, 537, 543, 549, 555, 561, 567, 573, 579, 585, 591, 597, 603, 609, 615, 621, 627, 633, 639, 645, 651, 657, 663, 669, 675, 681, 687, 693, 699, 705, 711, 717, 723, 729, 735, 741, 747, 753, 759, 765, 771, 777, 783, 789, 795, 801, 807, 813, 819, 825, 831, 837, 843, 849, 855, 861, 867, 873, 879, 885, 891, 897, 903, 909, 915, 921...}

"Abbbbbb" (#temporary name)

{15, 25, 35, 55, 65, 85, 95, 115, 125, 145, 155, 175, 185, 205, 215, 235, 245, 265, 275, 295, 305, 325, 335, 355, 365, 385, 395, 415, 425, 445, 455, 475, 485, 505, 515, 535, 545, 565, 575, 595, 605, 625, 635, 655, 665, 685, 695, 715, 725, 745, 755, 775, 785, 805, 815, 835, 845, 865, 875, 895, 905, 925, 935, 955, 965, 985, 995, 1015, 1025, 1045, 1055, 1075...}

"Acccccc" (#temporary name)

{49, 77, 91, 119, 133, 161, 175, 203, 217, 245, 259, 287, 301, 329, 343, 371, 385, 413, 427, 455, 469, 497, 511, 539, 553, 581, 595, 623, 637, 665, 679, 707, 721, 749, 763, 791, 805, 833, 847, 875, 889, 917, 931, 959, 973, 1001, 1015, 1043, 1057, 1085, 1099, 1127, 1141, 1169, 1183, 1211, 1225, 1253, 1267, 1295, 1309, 1337, 1351, 1379, 1393, 1421, 1435, 1463, 1477, 1505, 1519, 1547, 1561, 1589, 1603, 1631, 1645, 1673, 1687, 1715, 1729, 1757, 1771, 1799, 1813, 1841, 1855, 1883, 1897, 1925, 1939, 1967, 1981, 2009, 2023, 2051, 2065, 2093, 2107, 2135, 2149, 2177, 2191, 2219, 2233, 2261, 2275, 2303, 2317, 2345, 2359, 2387, 2401, 2429, 2443, 2471, 2485, 2513...}

Oeis A038511

{121, 143, 169, 187, 209, 221, 247, 253, 289, 299, 319, 323, 341, 361, 377, 391, 403, 407, 437, 451, 473, 481, 493, 517, 527, 529, 533, 551, 559, 583, 589, 611, 629, 649, 667, 671, 689, 697, 703, 713, 731, 737, 767, 779, 781, 793, 799, 803, 817, 841, 851, 869, 871, 893, 899, 901, 913, 923, 943, 949, 961, 979, 989, 1003...}

(Oeis A025584 without 2,3)

{11, 17, 23, 29, 37, 41, 47, 53, 59, 67, 71, 79, 83, 89, 97, 101, 107, 113, 127, 131, 137, 149, 157, 163, 167, 173, 179, 191, 197, 211, 223, 227, 233, 239, 251, 257, 263, 269, 277, 281, 293, 307, 311, 317, 331, 337, 347, 353, 359, 367, 373, 379, 383, 389, 397, 401...}

Below are the elements of the 5 sequences according to the internal arrangement a Oeis A167692 (n+1)

{9,11,15,17,21,23,25,27,29,33,35,37,39,41,45,47,49,51,53,55,57,59,63,65,67,69,71,75,77,79,81,83,85,87,89,91,93,95,97,99,101,105,107,111,113,115,117,119,121,123,125,127,129,131,133,135,137,141,143,145,147,149,153,155,157,159,161,163,165,167,169,171,173,175,177,179,183,185,187,189,191,195,197,201,203,205,207,209,211,213,215,217,219,221,223,225,227,231,233,235,237,239,243,245,247,249,251,253,255,257,259,261,263,265,267,269,273,275,277,279,281,285,287,289,291,293,295,297,299,301,303,305,307,309,311,315,317,319,321,323,325,327,329,331,333,335,337,339,341,343,345,347,351,353,355,357,359,361,363,365,367,369,371,373,375,377,379,381,383,385,387,389,391,393,395,397,399,401,403,405,407,409,411,413,415,417,419,423,425,427,429,431,435,437,439,441,443,445,447,449,451,453,455,457,459,461,465,467,469,471,473,475,477,479,481,483,485,487,489,491,493,495,497,499,501,503,505,507,509,511,513,515,517,519,521,525,527,529,531,533,535,537,539,541,543,545,547,549,551,553,555,557,559,561,563,565,567,569,573,575,577,579,581,583,585,587,589,591,593,595,597,599,603,605,607,609,611,614,615,617,621,623,625,627,629,631,633,635,637,639,641,645,647,649,651,653,655,657,659,663,665,667,669,671,673,675,677,679,681,683,685,687,689,691,693,695,697,699,701,703,705,707,709,711,713,715,717,719,721,723,725,727,729,731,733,735,737,739,741,743,745,747,749,751,753,755,757,759,761,763,765,767,769,771,773,775,777,779,781,783,785,787,789,791,793,795,797,799,801,803,805,807,809,813,815,817,819,821,825,827,831,833,835,837,839,841,843,845,847,849,851,853,855,857,861,863,865,867,869,871,873,875,877,879,881,885,887,889,891,893,895,897,899,901,903,905,907,909,911,913,915,917,919,921,923,925,927,929,931,933,935,937,939,941,943,945,947,949,951,953,955,957,959,961,963,965,967,969,971,973,975,977,979,981,983,985,987,989,991,993,995,997,999,1001...}

In reference to the sequences Aaaaaaa, Abbbbbb Acccccc OeisA038511 that make up Oeis A167692 (n+1) the known formulas are::

Aaaaaaa $G_n(a_n)(z) = -3(2z^2 - z - 3)/(z - 1)^2$ (formula generated with wolframalpha.com)

Abbbbbb $G_n(a_n)(z) = (5(2z^3 - z^2 + 2z + 3))/((z - 1)^2(z + 1))$ (ormula generated with wolframalpha.com)

Acccccc $G_n(a_n)(z) = -(7(5z^2 - 4z - 7))/((z - 1)^2(z + 1))$ (ormula generated with wolframalpha.com)

OeisA038511 The sequence can be obtained by multiplying each term of A008364, except {1}, by itself and by all subsequent terms. Rewrite the terms in ascending order (For the formulas of A008364 see <https://oeis.org/A008364>)

About (OeisA025584 without 2,3) at the moment there is not a known formula but it is possible to build an effective sieve so as to find all the elements that compose it.

----- CRIVELLO FOR THE CONSTRUCTION OF (Oeis A025584 without 2,3) -----

First we generate the following sequence “Adddddd” $G_n(a_n)(z) = (-7z^2 + 4z + 9)/((z - 1)^2(z + 1))$ (formula generataed with wolframalpha.com)

Adddddd

9, 13, 15, 19, 21, 25, 27, 31, 33, 37, 39, 43, 45, 49, 51, 55, 57, 61, 63, 67, 69, 73, 75, 79, 81, 85, 87, 91, 93, 97, 99, 103, 105, 109, 111, 115, 117, 121, 123, 127, 129, 133, 135, 139, 141, 145, 147, 151, 153, 157, 159, 163, 165, 169, 171, 175, 177, 181, 183, 187, 189, 193, 195, 199, 201, 205, 207, 211, 213, 217, 219, 223, 225, 229, 231, 235, 237, 241, 243, 247, 249, 253, 255, 259, 261, 265, 267, 271, 273, 277, 279, 283, 285, 289, 291, 295, 297, 301, 303, 307, 309, 313, 315, 319, 321, 325, 327, 331, 333, 337, 339, 343, 345, 349, 351, 355, 357, 361, 363, 367, 369, 373, 375, 379, 381, 385, 387, 391, 393, 397, 399, 403, 405, 409, 411, 415, 417, 421, 423, 427, 429, 433, 435, 439, 441, 445, 447, 451, 453, 457, 459, 463, 465, 469, 471, 475, 477, 481, 483, 487, 489, 493, 495, 499, 501, 505, 507, 511, 513, 517, 519, 523, 525, 529, 531, 535, 537, 541, 543, 547, 549, 553, 555, 559, 561, 565, 567, 571, 573, 577, 579, 583, 585, 589, 591, 595, 597, 601, 603, 607, 609, 613, 615, 619, 621, 625, 627, 631, 633, 637, 639, 643, 645, 649, 651, 655, 657, 661, 663, 667, 669, 673, 675, 679, 681, 685, 687, 691, 693, 697, 699, 703, 705, 709, 711, 715, 717, 721, 723, 727, 729, 733, 735, 739, 741, 745, 747, 751, 753, 757, 759, 763, 765, 769, 771, 775, 777, 781, 783, 787, 789, 793, 795, 799, 801, 805, 807, 811, 813, 817, 819, 823, 825, 829, 831, 835, 837, 841, 843, 847, 849, 853, 855, 859, 861, 865, 867, 871, 873, 877, 879, 883, 885, 889, 891, 895, 897, 901, 903, 907, 909, 913, 915, 919, 921, 925, 927, 931, 933, 937, 939, 943, 945, 949, 951, 955, 957, 961, 963, 967, 969, 973, 975, 979, 981, 985, 987, 991, 993, 997, 999, 1003

The **Adddd** sequence is quite interesting because if we add the sequence values to **Oeis A092256 (Non primes of the form 6k+5)** we would get all the values that are not listed in (**OeisA025584** without 2,3). At present it is still a rough sequence as it contains different values, not all, of (**OeisA025584** without 2,3).

However, we continue the reasoning by retrieving the values of (**OeisA025584** without 2,3) present in the **Adddd** series. Therefore consider the sequence again **Oeis A092256 (Non primes of the form 6k+5)** and add 2 to each term:

OeisA092256 n+2
 {37,67,79,97,121,127,145,157,163,187,203,211,217,223,247,277,289,301,307,325,331,337,343,367,373,379,397,409,415,427,439,457,475,487,499,517,529,535,541,547,553,577,583,607,613,625,631,637,667,673, 691,697,709, 715, 727, 733, 739, 751, 757, 769, 781, 787, 793, 805, 817, 835, 847, 853, 871, 877, 895, 901, 907, 919, 925, 937, 961, 967, 991, 997, 1003...}

The terms of **OeisA092256 n+2** are elements that belong to (**OeisA025584** without 2,3) to the exclusion of the elements in common with **Abbbbbb Acccccc Oeis A038511**

OeisA092256 n+2
 {37,67,79,97,121,127,145,157,163,187,203,211,217,223,247,277,289,301,307,325,331,337,343,367,373,379,397,409,415,427,439,457,475,487,499,517,529,535,541,547,553,577,583,607,613,625,631,637,667,673, 691,697,709, 715, 727, 733, 739, 751, 757, 769, 781, 787, 793, 805, 817, 835, 847, 853, 871, 877, 895, 901,907, 919, 925, 937, 961, 967, 991, 997, 1003...}

The terms {121,145,187,203,217,247,289,301,325,343,415,427,475,517,529,535,553,583,625,637,667,697,715,781,793,805,817,835,847,871,895,901,925,961,1003...} belong respectively to:

Acccccc { 203, 217, 301, 343, 427, 553, 637...}
Abbbbbb { 145,325,415, 475,535,625, 715, 805, 835, 895,925...}
OeisA038511 {121, 187, 247, 289, 517, 529, 583, 667,697, 781, 793, 817, 847, 871, 901, 961, 100...}

OeisA092256 n+2
 {37,67,79,97,121,127,145,157,163,187,203,211,217,223,247,277,289,301,307,325,331,337,343,367,373,379,397,409,415,427,439,457,475,487,499,517,529,535,541,547,553,577,583,607,613,625,631,637,667,673, 691,697,709, 715, 727, 733, 739, 751, 757, 769, 781, 787, 793,805,817,835,847, 853, 871, 877, 895,901,907, 919, 925, 937, 961,967, 991, 997, 1003}

extrapolating from **OeisA092256 n+2** all the elements not in common with **Abbbbbb Acccccc Oeis A038511** we can then build the following sequence **Affffff (A121764?)**:

Affffff (A121764?)
 {37,67,79,97,127,157,163,211,223,277,307,331,337,367,373,379,397,409,439,457,487,499,541,547,577,607,613,631,673, 691,709, 727, 733, 739, 751, 757, 769, 787, 853, 877, 907, 919, 937,967, 991, 997...}

In [A121764?](#), as you can see, there are certainly elements belonging to ([OeisA025584](#) without 2,3) but not all yet. To find the additional missing values of ([OeisA025584](#) without 2,3) remove those known in [A121764?](#) from the **Adddddd** series

Adddddd $G_n(a_n)(z) = (-7z^2 + 4z + 9)/((z - 1)^2(z + 1))$

9, 13, 15, 19, 21, 25, 27, 31, 33, **37**, 39, 43, 45, 49, 51, 55, 57, 61, 63, **67**, 69, 73, 75, **79**, 81, 85, 87, 91, 93, **97**, 99, 103, 105, 109, 111, 115, 117, 121, 123, **127**, 129, 133, 135, 139, 141, 145, 147, 151, 153, **157**, 159, **163**, 165, 169, 171, 175, 177, 181, 183, 187, 189, 193, 195, 199, 201, 205, 207, **211**, 213, 217, 219, **223**, 225, 229, 231, 235, 237, 241, 243, 247, 249, 253, 255, 259, 261, 265, 267, 271, 273, **277**, 279, 283, 285, 289, 291, 295, 297, 301, 303, **307**, 309, 313, 315, 319, 321, 325, 327, **331**, 333, **337**, 339, 343, 345, 349, 351, 355, 357, 361, 363, **367**, 369, **373**, 375, **379**, 381, 385, 387, 391, 393, **397**, 399, 403, 405, **409**, 411, 415, 417, 421, 423, 427, 429, 433, 435, **439**, 441, 445, 447, 451, 453, **457**, 459, 463, 465, 469, 471, 475, 477, 481, 483, **487**, 489, 493, 495, **499**, 501, 505, 507, 511, 513, 517, 519, 523, 525, 529, 531, 535, 537, **541**, 543, **547**, 549, 553, 555, 559, 561, 565, 567, 571, 573, **577**, 579, 583, 585, 589, 591, 595, 597, 601, 603, **607**, 609, **613**, 615, 619, 621, 625, 627, **631**, 633, 637, 639, 643, 645, 649, 651, 655, 657, 661, 663, 667, 669, **673**, 675, 679, 681, 685, 687, **691**, 693, 697, 699, 703, 705, **709**, 711, 715, 717, 721, 723, **727**, 729, **733**, 735, **739**, 741, 745, 747, **751**, 753, **757**, 759, 763, 765, **769**, 771, 775, 777, 781, 783, **787**, 789, 793, 795, 799, 801, 805, 807, 811, 813, 817, 819, 823, 825, 829, 831, 835, 837, 841, 843, 847, 849, **853**, 855, 859, 861, 865, 867, 871, 873, **877**, 879, 883, 885, 889, 891, 895, 897, 901, 903, **907**, 909, 913, 915, **919**, 921, 925, 927, 931, 933, **937**, 939, 943, 945, 949, 951, 955, 957, 961, 963, **967**, 969, 973, 975, 979, 981, 985, 987, **991**, 993, **997**, 999, 1003

- The additional sequence that comes out, the **Agggggg** has no value in common with ([OeisA025584](#) without 2,3)

Agggggg

9, 13, 15, 19, 21, 25, 27, 31, 33, 39, 43, 45, 49, 51, 55, 57, 61, 63, 69, 73, 75, 81, 85, 87, 91, 93, 99, 103, 105, 109, 111, 115, 117, 121, 123, 129, 133, 135, 139, 141, 145, 147, 151, 153, 159, 165, 169, 171, 175, 177, 181, 183, 187, 189, 193, 195, 199, 201, 205, 207, 213, 217, 219, 225, 229, 231, 235, 237, 241, 243, 247, 249, 253, 255, 259, 261, 265, 267, 271, 273, 279, 283, 285, 289, 291, 295, 297, 301, 303, 309, 313, 315, 319, 321, 325, 327, 333, 339, 343, 345, 349, 351, 355, 357, 361, 363, 369, 375, 381, 385, 387, 391, 393, 399, 403, 405, 411, 415, 417, 421, 423, 427, 429, 433, 435, 441, 445, 447, 451, 453, 459, 463, 465, 469, 471, 475, 477, 481, 483, 489, 493, 495, 501, 505, 507, 511, 513, 517, 519, 523, 525, 529, 531, 535, 537, 543, 549, 553, 555, 559, 561, 565, 567, 571, 573, 579, 583, 585, 589, 591, 595, 597, 601, 603, 609, 615, 619, 621, 625, 627, 633, 637, 639, 643, 645, 649, 651, 655, 657, 661, 663, 667, 669, 675, 679, 681, 685, 687, 693, 697, 699, 703, 705, 711, 715, 717, 721, 723, 729, 735, 741, 745, 747, 753, 759, 763, 765, 771, 775, 777, 781, 783, 789, 793, 795, 799, 801, 805, 807, 811, 813, 817, 819, 823, 825, 829, 831, 835, 837, 841, 843, 847, 849, 855, 859, 861, 865, 867, 871, 873, 879, 883, 885, 889, 891, 895, 897, 901, 903, 909, 913, 915, 921, 925, 927, 931, 933, 939, 943, 945, 949, 951, 955, 957, 961, 963, 969, 973, 975, 979, 981, 985, 987, 993, 999, 1003

- At this point to get all the values of exclusive belonging to ([OeisA025584](#) without 2,3) just build the sequence of odd numbers from 9 onwards and remove from it the common values in **Agggggg** and those in [Oeis A092256 \(Non primes of the form 6k+5\)](#)

OeisA092256 (Non primes of the form 6k+5)

{35,65,77,95,119,125,143,155,161,185,203, 209, 215, 221, 245, 275, 287, 299, 305, 323, 329, 335, 341, 365, 371, 377, 395, 407, 413, 425, 437, 455, 473, 485, 497, 515, 527, 533,539,545,551,575,581,605,611,623,629,635,665,671,689,695,707,713,725,731,737,749,755,767,779,785,791,803,815,833,845,851,869,875,893,899,905,917,923,935,959,965, 989,995,1001...}

- This is the arrangement of the sequences **Aggggggg** ed **Oeis A092256 (Non primes of the form 6k+5)** within the sequence of the odd numbers (from 9 onwards):

9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 101 103 105 107 109 111
 113 115 117 119 121 123 125 127 129 131 133 135 137 139 141 143 145 147 149 151 153 155 157 159 161 163 165 167 169 171 173 175 177 179 181 183 185 187 189 191 193 195 197 199
 201 203 205 207 209 211 213 215 217 219 221 223 225 227 229 231 233 235 237 239 241 243 245 247 249 251 253 255 257 259 261 263 265 267 269 271 273 275 277 279 281 283 285
 287 289 291 293 295 297 299 301 303 305 307 309 311 313 315 317 319 321 323 325 327 329 331 333 335 337 339 341 343 345 347 349 351 353 355 357 359 361 363 365 367 369
 371 373 375 377 379 381 383 385 387 389 391 393 395 397 399 401 403 405 407 409 411 413 415 417 419 421 423 425 427 429 431 433 435 437 439 441 443 445 447 449 451 453
 455 457 459 461 463 465 467 469 471 473 475 477 479 481 483 485 487 489 491 493 495 497 499 501 503 505 507 509 511 513 515 517 519 521 523 525 527 529 531 533 535 537 539
 541 543 545 547 549 551 553 555 557 559 561 563 565 567 569 571 573 575 577 579 581 583 585 587 589 591 593 595 597 599 601 603 605 607 609 611 613 615 617 619 621 623 625
 627 629 631 633 635 637 639 641 643 645 647 649 651 653 655 657 659 661 663 665 667 669 671 673 675 677 679 681 683 685 687 689 691 693 695 697 699 701 703 705 707 709
 711 713 715 717 719 721 723 725 727 729 731 733 735 737 739 741 743 745 747 749 751 753 755 757 759 761 763 765 767 769 771 773 775 777 779 781 783 785 787 789 791 793
 795 797 799 801 803 805 807 809 811 813 815 817 819 821 823 825 827 829 831 833 835 837 839 841 843 845 847 849 851 853 855 857 859 861 863 865 867 869 871 873 875 877
 879 881 883 885 887 889 891 893 895 897 899 901 903 905 907 909 911 913 915 917 919 921 923 925 927 929 931 933 935 937 939 941 943 945 947 949 951 953 955 957 959 961
 963 965 967 969 971 973 975 977 979 981 983 985 987 989 991 993 995 997 999 1001 1003

- As you can see, the terms excluded are precisely those corresponding to (**Oeis A025584** without 2,3) or:

{11,17,23,29,37,41,47,53,59,67,71,79,83,89,97,101,107,113,127,131,137,149,157,163,167,173,179,191,197,211,223,227,233,239,251,257,263,269,277,281,293,307,311,317,331,
 337,347,353,359,367,373,379,383,389,397,401,409,419,431,439,443,449,457,461,467,479,487,491,499,503,509,521,541,547,557,563,569,577,587,593,599,607,613,617,631,641,6
 47,653,659,673,677,683,691,701,709,719,727,733,739,743,751,757,761,769,773,787,797,809,821,827,839,853,857,863,877,881,887,907,911,919...}

----- END OF CRIVELLO FOR THE CONSTRUCTION OF (**Oeis A025584** without 2,3) -----

- Now that we can calculate exactly (**Oeis A025584** without 2,3) we can generate all the values for **Oeis A167692(n+1)**, through the formula:

$$\text{Oeis A167692}(n+1) = \text{Aaaaaaa U Abbbbbb U Acccccc U Oeis A038511 U (Oeis A025584 without 2,3)}$$

- Established the terms of (**Oeis A167692**), we can find all the even elements of **Oeis A014574** in **Oeis A047229** without 0,2,3

Oeis A047229 without 0,2,3
 {4,6,8,9,10,12,14,15,16,18,20,21,22,24,26,27,28, 30, 32, 33,34,36,38, 39,40,42,44, 45,46,48,50, 51,52,54,56,57,58,60,62,63,64,66,68,69,70,72,74,75,76,78...}

{4, 6, 12, 18, 30, 42, 60, 72, 102, 108, 138, 150, 180, 192, 198, 228, 240, 270, 282, 312, 348, 420, 432, 462, 522, 570, 600, 618, 642, 660, 810, 822, 828, 858, 882, 1020, 1032, 1050,
 1062, 1092, 1152, 1230, 1278, 1290, 1302, 1320, 1428, 1452, 1482, 1488, 1608...}

and therefore calculate **Oeis A077800**

{3, 5, 5, 7, 11, 13, 17, 19, 29, 31, 41, 43, 59, 61, 71, 73, 101, 103, 107, 109, 137, 139, 149, 151, 179, 181, 191, 193, 197, 199, 227, 229, 239, 241, 269, 271, 281, 283, 311, 313, 347,
 349, 419, 421, 431, 433, 461, 463, 521, 523, 569, 571, 599, 601, 617, 619...}

In conclusion.....

The sequence of the odd numbers in (Oeis A047229 senza 0,2,3) is 9, 15, 21, 27, 33, 39, 45, 51, 57, 63, 69, 75, 81, 87, 93, 99, 105, 111, 117, 123, 129, $a_n = 3(2n + 1)$

the answer to the question of the questions: Are there endless pairs of twin primes?

All sequences on employed for which there is a formula are endless.

Also the sequence Oeis A092256 (Non primes of the form $6k+5$), used for the construction of the sieve useful for the calculation of (OeisA025584 without 2,3), is infinite!

An easy demonstration among the many?

Oeis A092256 corresponds to

$a(n) = 6 * A059324 + 5$ (Numbers n such that $6n + 5$ is composite <https://oeis.org/A059324>)

An infinitely infinite subsequence of A059324 can be constructed with all multiples of 5

$$a_n = 5n$$

THE ANSWER WITHOUT THE SHADE OF DOUBT IS YES !!

Pietro Maiorana Montes, written 18/02/2019 (Sicilia)