

THE ON-LINE ENCYCLOPEDIA OF INTEGER SEQUENCES®

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<https://oeis.org/history?seq=A281929&start=50>

 [Hints](#)

(Greetings from [The On-Line Encyclopedia of Integer Sequences!](#))

Revision History for [A281929](#)

(Underlined text is an addition; strikethrough text is a ~~deletion~~.)

[newer changes](#) | Showing entries 51-59

[A281929](#) Numbers k such that $(19 \cdot 10^k + 119)/3$ is prime. [[A281929](#) is now occupied with another sequence that was approved in the meantime by OEIS] (history; edit; published version)

#9 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 14:57:57 EST 2017

STATUS editing
proposed

#8 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 14:55:38 EST 2017

COMMENTS 332564251542?...3403061765126??...25641765126161352166
??...251542????...?????...

STATUS proposed
editing

#7 by [Michel Marcus](#) at Thu Feb 02 14:36:28 EST 2017

STATUS editing
proposed

Discussion

Thu Feb 02 14:45 **Andrei-Lucian Dragoi**: 3 3 2564 251542 ? ? ... 3 40306 1765126 ? ? ? ... 2564 1765126 161352166 0 ? ? ... 251542 ? ? ? ? ?

14:48 **Andrei-Lucian Dragoi**: LINE-1: 3 3 2564 251542 ? ... LINE-2: 3 40306 1765126 ? ? ? ... LINE-3: 2564 1765126 161352166 ? ? ? ... LINE-4: 251542 ? ? ? ? ? ... LINE-4: ...

14:49 **Andrei-Lucian Dragoi**: It is sad that this Discussion editor doesn't support multiple lines in a comment (as if it cannot support the new paragraph character), so that I cannot express/exemplify a 2D matrix here.

#6 by [Michel Marcus](#) at Thu Feb 02 14:32:34 EST 2017

NAME The finite values of the function $f(a,b)$ associated with the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) on super-primes (i -primeths \rightarrow).

EXAMPL E $f(0,0)=3$, $f(1,0)=f(0,1)=3$, $f(2,0)=2564$, $f(1,1)=40$ ~~30640306~~,
 $f(3,0)=f(0,3)=251542$ ~~251542251542~~, $f(2,1)=f(1,2)=1$ ~~765~~ 1261765126,
 $f(2,2)=161 ~~352~~ 166161352166.$

CROSSRE FS Cf. [A000040](#), [A006450](#), [A038580](#), [A049090](#), [A049203](#), [A049202](#), [A057849](#), [A057850](#), [A057851](#),
[A057847](#), [A058332](#), [A093047](#).

KEYWORD D ~~nonn,hard,look,more,nice,uned,unkn,changed~~
~~nonn,more~~

EXTENSIONS I have added the newly computed value $f(3,0)=f(0,3)=251\ 542$ in the string and in the VBGC formulation variants. I have mentioned that the two *i*-primeths (a_Px, b_Py) (that can form any $2m$, with $m > f(a,b)$) are distinct to each other.

STATUS proposed
editing

Discussion

Thu Feb 02 14:33 **Michel Marcus**: Added periods, reduced keywords list.

14:34 **Michel Marcus**: The example section is not really what is expected here, but still it seems to show that your data is an array. Is that so ? If yes, please go to <https://oeis.org/eishelp2.html#NA> to see how sequence should be entered

14:36 **Michel Marcus**: For the links please see <https://oeis.org/eishelp2.html#RH>

14:40 **Andrei-Lucian Dragoi**: Yes, the data is organized in a 2D matrix (2D array with a potentially infinite number of lines and columns)

#5 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 14:19:40 EST 2017

STATUS editing
proposed

#4 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 14:19:14 EST 2017

DATA 3, 3, 2564, 40306, 251542, 1765126, 161352166

COMMENTS The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, there will always exist a single finite positive value for the function $f(a,b)=f(b,a) \geq 3$ so that any even positive integer $2m > 2f(a,b)$ can be written as the sum of at least one pair of distinct i-primeths (a_Px, b_Py), with ~~the~~ positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with $f(0,0)=3$. VBGC(1,0) is associated with $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40$ ~~306~~. VBGC(3,0) is associated with $f(3,0)=f(0,3)=251\ 542$. VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$. VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, any even positive integer $2m > 2 \cdot \{2^{[(a+1) \cdot (b+2) \cdot (a+b+1)]}\}$ can be written as the sum of at least one pair of distinct i-primeths (a_Px, b_Py), with the positive integer indexes $x > 0$ and $y > 0$."

FORMULA The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, there will always exist a single finite positive value for the function $f(a,b)=f(b,a) \geq 3$ so that any even positive integer $2m > 2f(a,b)$ can be written as the sum of at least one pair of distinct i-primeths (a_Px, b_Py), with the positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with $f(0,0)=3$. VBGC(1,0) is associated with $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40$ ~~306~~. VBGC(3,0) is associated with $f(3,0)=f(0,3)=251\ 542$.

VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$.

VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, any even positive integer $2m > 2 * \{2^{[(a+1)*(b+2)*(a+b+1)]}\}$ can be written as the sum of at least one pair of distinct i-primeths (a_{Px}, b_{Py}), with the positive integer indexes $x > 0$ and $y > 0$."

EXAMPLE $f(0,0)=3, f(1,0)=f(0,1)=3, f(2,0)=2564, f(1,1)=40$
 $306, f(3,0)=f(0,3)=251\ 542, f(2,1)=f(1,2)=1\ 765\ 126,$
 $f(2,2)=161\ 352\ 166$

EXTENSIONS I have added the newly computed value $f(3,0)=f(0,3)=251\ 542$ in the string and in the VBGC formulation variants. I have mentioned that the two i-primeths (a_{Px}, b_{Py}) (that can form any $2m$, with $m > f(a,b)$) are distinct to each other.

STATUS proposed
 editing

#3 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 07:40:55 EST 2017

STATUS editing
 proposed

Discussion

Thu Feb 02 07:59 **Andrei-Lucian Dragoi**: I am opened to any suggestion as part of any review.

#2 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 07:37:31 EST 2017

NAME allocated for Andrei-Lucian Dragoi

The finite values of the function $f(a,b)$ associated with the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) on super-primes (i-primeths)

DATA 3, 3, 2564, 40306, 1765126, 161352166

OFFSET 0,1

COMMENTS The Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) proposed by Andrei-Lucian Dragoi can be named a "meta-conjecture", as it states an infinite number of BGC-like conjectures (stronger than BGC) which are generically named VBGC(a,b), with VBGC(0,0) being equivalent to the non-trivial variant of BGC.

VBGC has an inductive variant and an analytical variant, which both apply to any super-prime family (of any iteration order i , generically named "i-primeths" by the author of VBGC).

$P(x)$ or P_x are both used as alternative notations for any x -th prime from the set of all (natural) primes indexed as: $P(1)=2, P(2)=3, P(3)=5, \dots, P(x), \dots$ (with positive integer index $x > 0$).

The i-primeth generic set noted as $i P$ (with positive integer $i \geq 0$ measuring the number of P-on-P iterations) can be defined (and noted) as such: $0 P_x = P(x)$ (zero iterations), $1 P_x = P[P(x)]$ (one iteration), $2 P_x = P[P(P(x))]$ (two iterations), ... $i P_x = P[P(P(\dots P(x)))]$ (i P-on-P iterations), ... All primes $i P_x$ with all indexes $x > 0$ and $i \geq 0$ form the generic subset $i P$. The set of all primes can be noted as $0 P$ and all generic sets $i P$ with $i > 0$ are subsets of $0 P$.

The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, there will always exist a single finite positive value for the function $f(a,b)=f(b,a) \geq 3$ so that any even positive integer $2m > 2f(a,b)$ can be written as the sum of at least one pair (a_{Px}, b_{Py}), with the positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with $f(0,0)=3$. VBGC(1,0) is associated with $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40\ 306$. VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$. VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, any even positive integer $2m > 2 * \{2^{[(a+1)*(b+2)*(a+b+1)]}\}$ can be written as the sum of at least one pair (a_{Px}, b_{Py}), with the positive integer indexes $x > 0$ and $y > 0$."

REFER Dragoi A.L. (January 2017). "The "Vertical" (generalization of) the Binary Goldbach's

ENCES conjecture (VBGC 1.2) as applied on "iterative" primes with (recursive) prime indexes (i-primeths)", DOI: 10.13140/RG.2.2.27963.62245; DOI: 10.13140/RG.2.2.14014.28484

LINKS

FORMULA The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, there will always exist a single finite positive value for the function $f(a,b)=f(b,a) \geq 3$ so that any even positive integer $2m > 2f(a,b)$ can be written as the sum of at least one pair $(a P_x, b P_y)$, with the positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with $f(0,0)=3$. VBGC(1,0) is associated with $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40\ 306$. VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$. VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, any even positive integer $2m > 2 \cdot \{2^{[(a+1) \cdot (b+2) \cdot (a+b+1)]}\}$ can be written as the sum of at least one pair $(a P_x, b P_y)$, with the positive integer indexes $x > 0$ and $y > 0$."

VBGC is a meta-conjecture that have been verified for the pairs $(a,b)=(0,0), (1,0), (2,0), (1,1), (2,1)$ and $(2,2)$ up to the limit $2m=10^{10}$

EXAMPL f(0,0)=3, f(1,0)=f(0,1)=3, f(2,0)=2564, f(1,1)=40 306, f(2,1)=f(1,2)=1 765 126, f(2,2)=161 352 166

CROSS A000040, A006450, A038580, A049090, A049203, A049202, A057849, A057850, A057851, A057847, A058332, A093047

KEYW allocated
ORD nonn,hard,look,more,nice,uned,unkn

AUTHOR Andrei-Lucian Dragoi, Feb 02 2017

STATUS approved
S editing

#1 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 07:37:31 EST 2017

NAME allocated for Andrei-Lucian Dragoi

KEYWORD allocated

STATUS approved

<https://oeis.org/history?seq=A281929&start=40>

Revision History for [A281929](#)

(Underlined text is an addition; strikethrough text is a ~~deletion~~.)

[newer changes](#) | Showing entries 41-50 | [older changes](#)

#19 by [Andrei-Lucian Dragoi](#) at Fri Feb 03 17:36:06 EST 2017

STATUS editing
proposed

Discussion

Fri Feb 03 17:38 **Andrei-Lucian Dragoi**: Erata: "Because this script didn't allow me to use either "?" or "x" for the unknown elements of this sequence, I have used "-1" so to suggest the incertitude of those terms (this is the only variant tolerated by that annoying script, that should be changed in my opinion). I have mentioned this notation in the title by the comment: "Important note: the (still) unknown values of the f(a,b) sequence were noted with "-1"." I have also replaced "?" with "-1" in the comments (and also added the important note in the comment section). I have deleted the keyword "nonn" (as it generated an error)."

Sat Feb 04 00:51 **Michel Marcus**: No, we don't do this. See for instance A272930, a(5) is not known, so the sequence data has only 4 terms, even if a(6), a(7), are known. Then those known terms are documented in comments

#18 by [Andrei-Lucian Dragoi](#) at Fri Feb 03 17:34:14 EST 2017

NAME The finite values of the function f(a,b) associated with the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) on super-primes (~~called~~primeths). The finite values of the function f(a,b) ~~organizes~~organize in a 2D matrix that can be represented using a triangular table read by antidiagonals, with entries in the order (a,b) = [(0,0)], [(0,1), (1,0)], [(0,2), (1,1), (2,0)], ~~The~~Important note: the (still) ~~unknown~~unknown values of the f(a,b) ~~sequence~~were noted with "~~0~~" "-1".

DATA 3, 3, 3, 2564, 40306, 2564, 251542, 1765126, 1765126, 251542,~~0,0,-1,-1~~, 161352166,~~0,0,-1,-1~~

COMMENTS Important note: the (still) unknown values of the f(a,b) sequence were noted with "-1".
Line-1: 3/3/2564/251542/~~??/.../-1/...~~
Line-2: 3/40306/1765126/~~??/??/.../-1/-1/...~~
Line-3: 2564/1765126/161352166/~~??/??/.../-1/-1/...~~
Line-4: 251542/~~??/??/??/.../-1/-1/-1/-1/...~~
Line-5:~~??/??/??/...: -1/-1/-1/-1/-1...~~
Line-5:~~??/?: -1/-1/161352166/~~??/??/-1/-1~~~~

KEYWORD non~~n~~sign,more,tabl,changed

STATUS proposed
editing

#17 by [Michel Marcus](#) at Fri Feb 03 13:40:13 EST 2017

STATUS editing
proposed

Discussion

Fri Feb 03 17:35 **Andrei-Lucian Dragoi**: I have used "0" because when using "?" for the unknown terms of this sequence, the script of the page generates an error of type: "The sequence data does not have the right format." (I've tried to compensate this by mentioning in the title that the unknown values are named with "0"). If I use the data suggested by you, I will lose the f(2,2) value of "161 352 166" which is an important term of the sequence (which took much time to compute): how can we find a solution for this problem (that the script doesn't tolerate the character "?", although it is clear there will always be some missing terms in this infinite (hard to compute) sequence)? Is "Stop" a keyword recognized and tolerated by the script? Because this script didn't allow me to use either "?" or "x" for the unknown elements of this sequence, I have left blanks between commas, so to suggest the incertitude of those terms (this is the only variant tolerated by that annoying script, that should be changed in my opinion). I have mentioned this notation in the title by the comment:

"Important note: the (still) unknown values of the $f(a,b)$ sequence were noted with "-1". I have also replaced "?" with "-1" in the comments (and also added the important note in the comment section). I have deleted the keyword "nonn" (as it generated an error).

#16 by [Michel Marcus](#) at Fri Feb 03 13:35:59 EST 2017

REFERENCES [A. L. Dragoi "The "Vertical" \(generalization of\) the Binary Goldbach's conjecture \(VBGC 1.2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i-primeths\)", DOI: 10.13140/RG.2.2.27963.62245 \(full article\); DOI: 10.13140/RG.2.2.14014.28484 \(conjecture only\) \(January 2017\).](#)

LINKS [A. L. Dragoi, The "Vertical" \(generalization of\) the Binary Goldbach's conjecture \(VBGC 1.2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i-primeths\) \(the conjecture only\) \(DOI: 10.13140/RG.2.2.14014.28484\)](http://dragoi.com/VBGC_latest_extract.pdf) (January 2017).
[A. L. Dragoi, The "Vertical" \(generalization of\) the Binary Goldbach's conjecture \(VBGC 1.2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i-primeths\) \(full article\) \(DOI: 10.13140/RG.2.2.27963.62245\)](http://dragoi.com/VBGC_latest_full.pdf) (January 2017).

EXTENSIONS I have kept only 2 web links/URLs in the Links section. I have added the keyword "tabl" in the keywords-list. I have re-edited the sequence of $f(a,b)$ values.

STATUS proposed
 editing

Discussion

Fri Feb 03 13:38 **Michel Marcus:** No need for extensions at this stage. Moved some info out of the title. Have removed the refs since they are in the links.

13:40 **Michel Marcus:** In the example you say that the 5th term of 1st line is ?, but in the data you say it is 0. If it is ?, you cannot say 0 in data, in that case data should be 3, 3, 3, 2564, 40306, 2564, 251542, 1765126, 1765126, 251542 stop

#15 by [Andrei-Lucian Dragoi](#) at Fri Feb 03 03:56:58 EST 2017

STATUS editing
 proposed

Discussion

Fri Feb 03 03:59 **Andrei-Lucian Dragoi:** I have kept only 2 web links/URLs in the Links section (and edited them as requested). I have added the keyword "tabl" in the keywords-list (as requested). I have ALSO re-edited the sequence of $f(a,b)$ values by organizing it as a triangular table read by each antidiagonal.

#14 by [Andrei-Lucian Dragoi](#) at Fri Feb 03 03:55:16 EST 2017

NAME The finite values of the function $f(a,b)$ associated with the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) on super-primes (i-primeths). The finite values of the function $f(a,b)$ organizes in a 2D matrix that can berepresented using a triangular table read by antidiagonals, with entries in the order $(a,b) = [(0,0)], [(0,1), (1,0)], [(0,2), (1,1), (2,0)], \dots$. The (still) unkown values of $f(a,b)$ were noted with "0".

DATA 3, 3, 3, 2564, 40306, 2564, 251542, 3, 40306, 1765126, 1765126, 251542, 25640, 17651260, 161352166, 0, 2515420

REFE A. L. Dragoi "The "Vertical" (generalization of) the Binary Goldbach's conjecture RENC (VBGC 1.2) as applied on "iterative" primes with (recursive) prime indexes (i-primeths)", DOI: 10.13140/RG.2.2.27963.62245, (full article); DOI: ES 10.13140/RG.2.2.14014.28484 (conjecture only) (January 2017).

LINKS [A. L. Dragoi, The "Vertical" \(generalization of\) the BinaryGoldbach's conjecture \(VBGC%201.2e-2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i-primeths\) \(the conjecture only\) \(DOI: 10.13140/RG.022.2017_extract_10pag_dragoi2.com14014.pdf">title</28484\)](http://dragoi.com/VBGC_latest_extract.pdf)
[A. L. Dragoi, The "Vertical" \(generalization of\) the BinaryGoldbach's conjecture \(VBGC 1.2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i-primeths\) \(fullarticle\) \(DOI: 10.13140/RG.022.2017_21pag_dragoi2.com27963.pdf"></62245\)](http://dragoi.com/VBGC1.2e-2VBGC_latest_full.pdf)
~~~~
 [~~~~](https://www.researchgate.net/publication/312653619_VBGC_12c_-_2022017_-_21_pages_The_Vertical_generalization_of_the_Binary_Goldbach%27s_Conjecture_VBGC_12_as_applied_on_iterative_primes_with_recursive_prime_indexes_i-primeths)

KEY
 WOR nonn,more,changed,tabl
 D

EXTE I have kept only 2 web links/URLs in the Links section. I have added the keyword
 NSIO "tabl" in the keywords-list. I have re-edited the sequence of f(a,b) values.
 NS

#13 by [Michel Marcus](#) at Fri Feb 03 01:05:56 EST 2017

REFERENCE ~~Dragoi-A-. L. (January 2017). ". Dragoi "The "Vertical" (generalization of) the~~
 S Binary Goldbach's conjecture (VBGC 1.2) as applied on "iterative" primes with
 (recursive) prime indexes (i-primeths)", DOI: 10.13140/RG.2.2.27963.62245; DOI:
 10.13140/RG.2.2.14014.28484 (January 2017).

LINKS ~~<A. L. Dragoi, ti~~
 tle

Discussion

Fri Feb 03 01:07 **Michel Marcus:** I began one link, please enter right title, and do the others in the same way

#12 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 15:50:25 EST 2017

COMME aThe Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) proposed byA
 NTS ndrei-Lucian Dragoi 2Dcan matrixbe withnamed a "meta-
 conjecture", as it statespotentiallyan infinite number of BGC-
 like conjectures (stronger than BGC) whichare generically named VBGC(a,b), with VB
 GC(0,0) being equivalent to the non-trivial linesvariant andof eolumns:BGC.

VBGC has an inductive variant and an analytical variant, which both apply to any
 super-prime family (of any iteration order i, generically named "i-primeths" by
 the author of VBGC).

P(x) or Px are both used as alternative notations for any x-th prime from the set of
 all (natural) primes indexed as: P(1)=2, P(2)=3, P(3)=5,..., P(x),... (with positive
 integer index x>0).

The i-primeth generic set noted as i P (with positive integer i>=0 measuring the
 number of P-on-P iterations) can be defined (and noted) as such: 0 Px=P(x) (zero
 iterations), 1 Px=P[P(x)] (one iteration), 2 Px=P[P(P(x))] (two iterations),...
 i Px=P[P(P(...P(x)))] (i P-on-P iterations),... All primes i Px with all indexes x>0
 and i>=0 form the generic subset i P. The set of all primes can be noted as 0 P
 and all generic sets i P with i>0 are subsets of 0 P.

The analytical variant of VBGC states that: "For any pair of finite P-on-P

iteration-orders $a \geq 0$ and $b \geq 0$, there will always exist a single finite positive value for the function $f(a,b)=f(b,a) \geq 3$ so that any even positive integer $2m > 2f(a,b)$ can be written as the sum of at least one pair of distinct i-primeths (a_{Px}, b_{Py}) , with positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with $f(0,0)=3$. VBGC(1,0) is associated with $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40\ 306$. VBGC(3,0) is associated with $f(3,0)=f(0,3)=251\ 542$. VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$. VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, any even positive integer $2m > 2 \cdot \{2^{[(a+1) \cdot (b+2) \cdot (a+b+1)]}\}$ can be written as the sum of at least one pair of distinct i-primeths (a_{Px}, b_{Py}) , with the positive integer indexes $x > 0$ and $y > 0$."

$f(a,b)$ generates a 2D matrix with a potentially infinite number of lines and columns:

...

?Line-infinite:

The 2D matrix generated by the $f(a,b)$ function can also be organized as a triangular array, such as:

Line-1: 3

Line-2: 3/3

Line-3: 2564/40306/2564

Line-4: 251542/1765126//1765126/251542

Line-5: ??/161352166/??

~~The Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) proposed by Andrei-Lucian Dragoi can be named a "meta-conjecture", as it states an infinite number of BGC like conjectures (stronger than BGC) which are generically named VBGC(a,b), with VBGC(0,0) being equivalent to the non trivial variant of BGC.~~

VBGC has an inductive variant and an analytical variant, which both apply to any super-prime family (of any iteration order i , generically named "i-primeths" by the author of VBGC).

$P(x)$ or P_x are both used as alternative notations for any x -th prime from the set of all (natural) primes indexed as: $P(1)=2$, $P(2)=3$, $P(3)=5, \dots$, $P(x), \dots$ (with positive integer index $x > 0$).

~~The i-primeth generic set noted as i_P (with positive integer $i \geq 0$ measuring the number of P on P iterations) can be defined (and noted) as such: $0_P_x = P(x)$ (zero iterations), $1_P_x = P[P(x)]$ (one iteration), $2_P_x = P[P(P(x))]$ (two iterations), ... $i_P_x = P[P(\dots P(x))]$ (i P on P iterations), ... All primes i_P_x with all indexes $x > 0$ and $i \geq 0$ form the generic subset i_P . The set of all primes can be noted as 0_P and all generic sets i_P with $i > 0$ are subsets of 0_P .~~

~~The analytical variant of VBGC states that: "For any pair of finite P on P iteration orders $a \geq 0$ and $b \geq 0$, there will always exist a single finite positive value for the function $f(a,b)=f(b,a) \geq 3$ so that any even positive integer $2m > 2f(a,b)$ can be written as the sum of at least one pair of distinct i primeths (a_{Px}, b_{Py}) , with positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non trivial form of BGC and is associated with $f(0,0)=3$. VBGC(1,0) is associated with $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40\ 306$. VBGC(3,0) is associated with $f(3,0)=f(0,3)=251\ 542$. VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$. VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."~~

~~The inductive variant of VBGC states that: "For any pair of finite P on P iteration-orders $a \geq 0$ and $b \geq 0$, any even positive integer $2m > 2 \cdot \{2^{[(a+1) \cdot (b+2) \cdot (a+b+1)]}\}$ can be written as the sum of at least one pair of distinct i-primeths (a_{Px}, b_{Py}) , with the positive integer indexes $x > 0$ and $y > 0$."~~

Discussion

Fri Feb 03 00:50 **Michel Marcus**: Matrix : so you need keyword tabl; please correct your links ; and when ready, click on "changes are ready"

#11 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 15:09:33 EST 2017

DATA	332345103254230167321076456701
	3, 3, 2564, 251542, 3, 40306, 1765126, 2564, 1765126,
	161352166, 251542

#10 by [Andrei-Lucian Dragoi](#) at Thu Feb 02 15:04:35 EST 2017

DATA 3, 3, 2564, 40306, 251542, 1765126, 161352166
 332345103254230167321076456701

COMMENTS 332564251542?...3403061765126??...25641765126161352166
 ??...251542????...?????...

a 2D matrix with a potentially infinite number of lines and columns:

Line-1: 3/3/2564/251542/?/...
 Line-2: 3/40306/1765126/?/?/...
 Line-3: 2564/1765126/161352166/?/?/...
 Line-4: 251542/?/?/?/?/...
 Line-5: ?/?/?/?/?/...
 ...
 ?Line-infinite:

STATUS proposed
 editing

Discussion

Thu Feb 02 15:07 **Michel Marcus**: see sequence A003987

15:08 **Michel Marcus**: please arrange your links author, title, journal, year

<https://oeis.org/history?seq=A281929&start=30>

Revision History for [A281929](#)

(Underlined text is an addition; strikethrough text is a ~~deletion~~.)

[newer changes](#) | Showing entries 31-40 | [older changes](#)

#29 by [Michel Marcus](#) at Sun Feb 05 01:15:33 EST 2017

STATUS editing
 proposed

Discussion

Sun Feb 05 03:35 **Michel Marcus**: I've been thinking about this, and I wonder if sequence is too ambitious.

03:38 **Michel Marcus**: A less ambitious sequence would be for instance, the even numbers that can be written as a sum of 2 terms of A006450 (prime-indexed primes), or the converse the even numbers that cannot ... same thing. This would take care of T(1,1). Do you see ?

04:11 **Michel Marcus**: I wrote a small script and for the moment I only find 2, 4, 12, 18, 24, 26, 30, 32, 54, 56, 60, 68, 106, 148, 156, 180, 204, 206, 504, 506, 508, 538, 854 that cannot be written as a sum of 2 PIP (A006450) ??

04:24 **Michel Marcus**: Ah found my mistake, there are more

04:32 **Michel Marcus**: Yes it begins 2, 4, 12, 18, 24, 26, 30, 32, 38, 40, 50, 54, 56, 60, 66, 68, 74, 80, 92, 96, ... and it "seems" that it ends 56216, 67316, 76736, 80612, Hence your 40306, right ?

04:42 **Andrei-Lucian Dragoi**: I don't understand why did you used "T(n,k)": what does T abbreviates? I ask that, because this is different from the notation f(a,b) used in my article and the reader may be confused to not find "T(n,k)" in my article too. I have introduced in the NAME section the formula "T(n, k) are the last exceptions..." to be more suggestive. The short name to find the terms of the sequence would be "VBGC" (which is a very specific abbreviation). Do you refer to a shorter text in NAME section? The algorithm was written in Visual C++ and was cited in my article (as a footnote with an URL: when decompressed, the pack has about 4GigaBytes). The method of finding each element of this sequence was explained in detail the addendum of the

article. The beauty of VBGC stands in its simplicity and "ambition". I don't think that VBGC is "too ambitious": however, any meta-conjecture that states an infinite of conjectures stronger than BGC is definitely more ambitious than BGC (and that is normal for a meta-conjecture, BUT this won't interdict any author to formulate such a meta-conjecture)! To prove that VBGC is "too ambitious", one must find at least one exception (which wouldn't rule out all VBGC (a,b), but just one sub-conjecture of VBGC(a,b) of it). VBGC(1,1) states that all even numbers greater than $f(1,1)=3$ can be written as the sum of at least one pair of distinct super-primes (1-primeths) a_{Px} and b_{Py} : this is an elegant formulation (to just mention $f(1,1)$ as the cut-off between the even numbers that cannot and the one that can be written as such a sum) that makes useless the listing of all the even positive integers that cannot be written as such a sum. The novelty for the literature is the verification of all the tested VBGC(a,b) conjectures up to $2m=10^{10}$ and also the terms $f(2,1)$, $f(2,2)$ and $f(3,0)$. The term is under-computing. You are wrong about your sequence given as an example: $f(1,1)=40306$ was already tested in the literature by at least two teams (we and the authors mentioned in the articles) and 40306 (not 854) is the last exception that cannot be written as the sum of two distinct 1-primeths (an that would be an huge string to be cited, and that makes worth sequencing just the last exceptions for any [a,b] pair!). I think you haven't used in your script the additional condition that a_{Px} should be distinct from b_{Py} (as $p+p=2p$ is a trivial condition for BGC: see the non-trivial BGC in my article)

- 04:44 **Andrei-Lucian Dragoi**: Erata: "VBGC(1,1) states that all even numbers greater than $f(1,1)=40306$ can be written as the sum of at least one pair of distinct super-primes (1-primeths) a_{Px} and b_{Py} "
- 04:45 **Andrei-Lucian Dragoi**: Erata: "The term $f(4,0)$ is under-computing"
- 04:47 **Andrei-Lucian Dragoi**: The inductive form of VBGC is also ambitious (but "not too ambitious"), as it alternatively states a general function with no mentioning of any $f(a,b)$ term, but a function which is useful in estimating the order of magnitude of the unknown elements of this VBGC sequence to be tested in the future.
- 04:48 **Andrei-Lucian Dragoi**: Erata: "VBGC(1,1) states that all even numbers greater than $f(1,1)=40306$ can be written as the sum of at least one pair of distinct super-primes (1-primeths) 1_{Px} and 1_{Py} "
- 04:51 **Andrei-Lucian Dragoi**: The inductive form of VBGC is another novelty for the literature that may help in significantly speed up the algorithms used in the present for the verification of ntBGC for very large numbers (higher than 10^{18}).

#28 by [Michel Marcus](#) at Sun Feb 05 01:10:37 EST 2017

EXAMPLE	<u>10</u> :	3	3	2564	251542	?
	<u>21</u> :	3	40306	1765126	?	
	<u>32</u> :	2564	1765126	161352166	?	
	<u>43</u> :	251542	?			
	<u>54</u> :	?				
	<u>10</u> :	3				
	<u>21</u> :	3	3			
	<u>32</u> :	2564	40306	2564		
	<u>43</u> :	251542	1765126	1765126	251542	
	<u>54</u> :	?	?	161352166	?	?

Discussion

- Sun Feb 05 01:12 **Michel Marcus**: Simplified example and definition. Cleared formula section : there was no formula, and text was already in comments.
- 01:14 **Michel Marcus**: Is there a way to find a short name that could be used to find the terms, for the moment we have to go to comments for this.
- 01:15 **Michel Marcus**: Do you have a program or an algorithm ? How did you find 2564 ?

#27 by [Michel Marcus](#) at Sun Feb 05 01:06:21 EST 2017

NAME ~~The finite values of the function $f(a,b)$ associated with the Vertical (generalization of) the Binary Goldbach~~

~~Conjecture (VBGC) on super-primes (called i-primeths).
The finite values of the function f(a,b) organize in a 2D
matrix that can be represented using a triangular table
read by antidiagonals, with entries in the order (a,b) =
[(0,0)], [(0,1), (1,0)], [(0,2), (1,1), (2,0)], ...~~

Array read by antidiagonals where T(n, k) are associated
with the Vertical (generalization of) the Binary Goldbach
Conjecture (VBGC) on super-primes (called i-primeths).

COMMENTS

The analytical variant of VBGC states that: "For any pair
of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, there
will always exist a single finite positive value for the
function $f(a,b)=f(b,a) \geq 3$ so that any even positive
integer $2m > 2f(a,b)$ can be written as the sum of at least
one pair of distinct i-primeths (a_{Px}, b_{Py}) , with
positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is
equivalent to the non-trivial form of BGC and is
associated with $f(0,0)=3$. VBGC(1,0) is associated with
 $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with
 $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40\ 306$.
VBGC(3,0) is associated with $f(3,0)=f(0,3)=251\ 542$.
VBGC(2,1) is associated with
 $f(2,1)=f(1,2)=1\ 765\ 126$. VBGC(2,2) is associated
with $f(2,2)=161\ 352\ 166$."

VBGC is a meta-conjecture that have been verified for the
pairs $(a,b)=(0,0), (1,0), (2,0), (3,0), (1,1), (2,1)$ and
 $(2,2)$ up to the limit $2m=10^{10}$.

FORMULA

~~The analytical variant of VBGC states that: "For any pair
of finite P-on-P iteration-orders $a \geq 0$ and $b \geq 0$, there
will always exist a single finite positive value for the
function $f(a,b)=f(b,a) \geq 3$ so that any even positive
integer $2m > 2f(a,b)$ can be written as the sum of at least
one pair of distinct i-primeths (a_{Px}, b_{Py}) , with the
positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is
equivalent to the non-trivial form of BGC and is
associated with $f(0,0)=3$. VBGC(1,0) is associated with
 $f(1,0)=f(0,1)=3$. VBGC(2,0) is associated with
 $f(2,0)=2564$. VBGC(1,1) is associated with $f(1,1)=40\ 306$.
VBGC(3,0) is associated with $f(3,0)=f(0,3)=251\ 542$.
VBGC(2,1) is associated with $f(2,1)=f(1,2)=1\ 765\ 126$.
VBGC(2,2) is associated with $f(2,2)=161\ 352\ 166$."~~

~~The inductive variant of VBGC states that: "For any pair of
finite P on P iteration orders $a \geq 0$ and $b \geq 0$, any even
positive integer $2m > 2 * [2^{(a+1)*(b+2)*(a+b+1)}]$ can be
written as the sum of at least one pair of distinct i-
primeths (a_{Px}, b_{Py}) , with the positive integer indexes
 $x > 0$ and $y > 0$."~~

VBGC is a meta-conjecture that have been verified for the
pairs $(a,b)=(0,0), (1,0), (2,0), (3,0), (1,1), (2,1)$ and
 $(2,2)$ up to the limit $2m=10^{10}$

EXAMPLE

$f(a,b)$ generates a 2D matrix with a potentially infinite
number of lines and columns:
Important note: the (still) unknown values of the $f(a,b)$
sequence were noted with "?".

As a square array:

```

Line-1:-:      3/      3/      2564/  251542/?/...  ?
Line-2:-:      3/      40306/  1765126/?/?/...  ?
Line-3:-:      2564/  1765126/  161352166/?/?/...  ?
Line-4: 251542/?/?/?/?/...  ?
Line-5:  ?/?/?/?/?/...
5:      ?
?Line-infinite:....
    
```

The 2D matrix generated by the $f(a,b)$ function can also be organized as a triangular array, such as:

As a triangular array:

```
Line-1+:-:      3
Line-2+:-:      3/      3
Line-3+:-: 2564/ 40306/ 2564
Line-4: 251542/ 1765126// 1765126/ 251542
Line-5: ??/161352166/??/?
5:      ?      ? 161352166      ?      ?
?Line-infinite:...
```

STATUS

proposed
editing

#26 by [Andrei-Lucian Dragoi](#) at Sat Feb 04 17:13:05 EST 2017

STATUS

editing
proposed

#25 by [Andrei-Lucian Dragoi](#) at Sat Feb 04 17:12:56 EST 2017

COMMENTS

$f(a,b)$ generates a 2D matrix with a potentially infinite number of lines and columns:

Important note: the (still) unknown values of the $f(a,b)$ sequence were noted with "?".

```
Line-1: 3/3/2564/251542/?/...
Line-2: 3/40306/1765126/?/?/...
Line-3: 2564/1765126/161352166/?/?/...
Line-4: 251542/?/?/?/?/...
Line-5: ?/?/?/?/?/...
```

...
?Line-infinite:....

The 2D matrix generated by the $f(a,b)$ function can also be organized as a triangular array, such as:

```
Line-1: 3
Line-2: 3/3
Line-3: 2564/40306/2564
Line-4: 251542/1765126//1765126/251542
Line-5: ??/161352166/??/?
```

...
?Line-infinite:...

EXAMPLE

$f(0,0)=3$, $f(1,0)=f(0,1)=3$, $f(2,0)=2564$, $f(1,1)=40306$,
 $f(3,0)=f(0,3)=251542$, $f(2,1)=f(1,2)=1765126$,
 $f(2,2)=161352166$.

$f(a,b)$ generates a 2D matrix with a potentially infinite number of lines and columns:

Important note: the (still) unknown values of the $f(a,b)$ sequence were noted with "?".

```
Line-1: 3/3/2564/251542/?/...
Line-2: 3/40306/1765126/?/?/...
Line-3: 2564/1765126/161352166/?/?/...
Line-4: 251542/?/?/?/?/...
Line-5: ?/?/?/?/?/...
```

...
?Line-infinite:....

The 2D matrix generated by the $f(a,b)$ function can also be organized as a triangular array, such as:

```
Line-1: 3
Line-2: 3/3
Line-3: 2564/40306/2564
Line-4: 251542/1765126//1765126/251542
Line-5: ??/161352166/??/?
```

...
?Line-infinite:...

$f(0,0)=3$ corresponds to VBGC(0,0) which is equivalent to

the non-trivial Binary Goldbach Conjecture which states that: "Every/any even integer $2m > (2 \cdot 3)$ [$m > f(0,0)$] can be always written as the sum of at least one pair of distinct odd primes P_x and P_y (which are equivalent to a $P_x=0$ P_x and b $P_y=0$ P_y , as $a=0$ and $b=0$ in this case)

STATUS proposed
editing

#24 by [Michel Marcus](#) at Sat Feb 04 08:45:50 EST 2017

STATUS editing
proposed

Discussion

Sat Feb 04 17:12 **Andrei-Lucian Dragoi**: I have moved the 2D matrix to the example section (as requested): I have also explained in that section why $f(0,0)=3$. The offset is 0, because a and b can take any natural values starting from 0 ($f[0,0]$ is the first), as standard primes are considered 0-primeths in VBGC (as they are produced by zero P-on-P iterations).

#23 by [Michel Marcus](#) at Sat Feb 04 08:37:16 EST 2017

KEYWORD ~~sign~~, ~~more~~, ~~nonn~~, tabl, more, changed
STATUS proposed
editing

Discussion

Sat Feb 04 08:40 **Michel Marcus**: ok thanks; policy is written somewhere in the Wiki, but could not find it today
08:44 **Michel Marcus**: Can you look after example section; it does not need to repeat data value; but you could move the 2 array representation there, and you could explain why $T(0, 0)$ is 3;
08:45 **Michel Marcus**: by the way, I think the offset is 1 ? and 1st term is $T(1,1)$??

#22 by [Andrei-Lucian Dragoi](#) at Sat Feb 04 07:59:59 EST 2017

STATUS editing
proposed

#21 by [Andrei-Lucian Dragoi](#) at Sat Feb 04 07:57:04 EST 2017

NAME The finite values of the function $f(a,b)$ associated with the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) on super-primes (called i-primeths). The finite values of the function $f(a,b)$ organize in a 2D matrix that can be represented using a triangular table read by antidiagonals, with entries in the order $(a,b) = [(0,0)], [(0,1), (1,0)], [(0,2), (1,1), (2,0)], \dots$
~~. Important note: the (still) unknown values of the $f(a,b)$ sequence were noted with "-1".], ...~~

DATA 3, 3, 3, 2564, 40306, 2564, 251542, 1765126, 1765126, 251542, ~~1, 1, 161352166, 1, -1~~

COMMENT S Important note: the (still) unknown values of the $f(a,b)$ sequence were noted with "-1". "?"
Line-1: ~~3/3/2564/251542/-1/.../?/...~~
Line-2: ~~3/40306/1765126/-1/-1/.../?/?/...~~
Line-3: ~~2564/1765126/161352166/-1/-1/.../?/?/...~~
Line-4: ~~251542/-1/-1/-1/-1/.../?/?/?/?/...~~
Line-5: ~~-1/-1/-1/-1/-1...~~
Line-5: ~~??/?/?/?/...~~
?Line-infinite+:....
Line-5: ~~-1/-1/161352166/-1/-1~~
Line-5: ~~??/?/161352166/?/?~~
?Line-infinite+:....

FORMULA VBGC is a meta-conjecture that have been verified for the pairs $(a,b) = (0,0), (1,0), (2,0), (3,0), (1,1), (2,1)$ and $(2,2)$ up to the limit $2m=10^10$

Discussion

Sat Feb 04 07:58 **Andrei-Lucian Dragoi**: Erata: " to find a specific sequence by entering a large number in the search box of OEIS [...] $f(a,b)=161\ 352\ 166$ is relatively large and also very specific for this $f(a,b)$

sequence "

#20 by [Michel Marcus](#) at Sat Feb 04 00:51:15 EST 2017STATUS proposed
 editing**Discussion**

Sat Feb 04 07:56 **Andrei-Lucian Dragoi**: After I have read A272930 I now understand your strict approach/policy: as long as I can mention $f(2,2)$ in comments it is relatively ok. However, it may have been useful to also allow mentioning other known terms (after the unknown ones) in the sequence data, as it may facilitate for an external user to find a specific sequence by entering a high number in the search box of OEIS. $f(a,b)=161\ 352\ 166$ is relatively high and also very specific for this $f(a,b)$ sequence and may have allowed a quick find of $f(a,b)$ sequence in your database. As I am also a programmer, I find this approach more useful in finding any sequence in OEIS database: maybe OEIS will also consider my view as a useful one in the future, and will also allow using the character "?" in the data sequence. (by modifying that script). I have done all the necessary modifications that you have requested.

<https://oeis.org/history?seq=A281929&start=20>

Revision History for [A281929](#)

(Underlined text is an addition; strikethrough text is a ~~deletion~~.)

[newer changes](#) | Showing entries 21-30 | [older changes](#)

#39 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 09:57:48 EST 2017STATUS editing
 proposed**Discussion**

Mo 10:1 **Andrei-Lucian Dragoi**: Of course, there is also a solution to publish all the sequences of all evens
n 0 smaller than each $T(n,k)$ as separate entries in OEIS, with separate sub-conjectures associated with each
Feb T(n,k): BUT this would be an inelegant redundant approach (very time consuming and very redundant). Is
06 this a solution for you? Mr. Michael Marcus suggested this (sub)conjecture-per-(sub)conjecture approach,
instead of one meta-sequence associated with the VBGC meta-conjecture.

10:1 **Andrei-Lucian Dragoi**: I have found this paragraph on OEIS: "Sequences that meet all our requirements
6 stand a much better chance of being approved quickly. That is, they are: interesting, mathematically well
defined, written in correct English, and conform to the OEIS formatting style"
(https://oeis.org/wiki/OEIS_FAQ#Q:_How_long_can_I_expect_to_wait_before_my_submission_is_accepted_or_rejected.3F). In my opinion, VBGC meets all these four criteria, as conjectures and meta-
conjectures are also mathematically well defined (as "well defined" doesn't necessarily mean "with formal
proof": as there are many sequences on OIES referring to Goldbach Conjecture which is a "well defined"
conjecture, even if it hasn't a formal proof yet)

11:1 **Andrei-Lucian Dragoi**: In conclusion, I didn't find any such an anti-conjecture policy on OIES. Maybe
6 one can send me a link with the specific paragraph referring to sequences with conjectural elements.

13:2 **Michel Marcus**: Putting aside the "conjecture issue", I agree with Joerg, this is why I wrote earlier; And
7 then in comments explain what is an $n_{(prime\ indexed\ prime)}$ with 0_{\prime} a prime, 1_{\prime} a prime indexed prime,
etc (to help readers understand the name); and remove the rather lengthy current comments (since you
gave a link to your pdfs).

13:3 **Michel Marcus:** In case this sequence is rejected because of the "conjecture issue", then you could try the
 3 "2, 4, 6, 20, 26, 32, 56, 80, 86, ..." and the "2, 4, 12, 18, 24, 26, 30, 32, 38, 40, .." sequences whose terms are not conjectural, only the fact that they are finite

14:1 **Andrei-Lucian Dragoi:** In my opinion, the concept of "i-primeth" (which is much shorter and suggestive
 8 than the long "prime-indexed prime" which I have also used, but in the definition of i-primeth) is much more concise and also easy to explain: I offered that explanation initially from the first paragraphs of the comments section. I thought it was naturally to first define the i-primeth concept (noted as i_P not as " i_a " which is unsuggestive for the function $\text{prime}[x]$) based on $P(x)$ function. In the second step (of the initial form), I have introduced VBGC in both its analytical and inductive form. The present definition in comments is somehow more difficult to digest, because it is more compressed (and very dense in new concepts): that is why I have proposed a more didactical form initially (because the clarity of the step-by-step method is preferable to the excessive "compression" strategy). I have removed a significant part from the comment section now: I have some concerns about clarity now. I was offered the chance to discuss the "conjecture issue" (which appears like a "sharp needle" or an "allergic agent" for OEIS reviewers) directly to Mr. Greathouse, who will probably have a final opinion on this "concern" (also denoted as "too ambitious"). I shall have to enter at least 5 different sequences of evens in OEIS to compensate: one sequence for each $f(1,1)$, $f(1,2)$, $f(2,2)$, $f(3,0)$, $f(4,0)$ (which is under-computing). In each of those sequence, I must redundantly copy-paste the definition of a prime-indexed prime (i-primeth), VBGC specific to that (a,b), etc. The horror comes when a reviewers doesn't like a specific formulation of one sequence entry: then I have to modify the redundant passages in all the 5 sequences drafts. Wouldn't it be more simple to eliminate such a huge redundancy? Given the long time I have consumed on this single draft, I am afraid that we shall consume more time than it takes me to write one more full article!

14:2 **Andrei-Lucian Dragoi:** The terms of those sequences of evens may not be conjectural, but the length of
 1 those sequences (as there is an non-0 inherent probability for finding additional islands of evens in each of those sequences) remain conjectural: furthermore, the entries of each data sequence become highly redundant in content.

14:2 **Andrei-Lucian Dragoi:** I just look at this single page draft of A281929: it has become so huge that it
 3 take a while to fully load. It's hard to even imagine the management of 5 different such pages opened simultaneously for editing, discussing, reviewing etc!

14:2 **Andrei-Lucian Dragoi:** It seems to me that this "needle" called "conjecture issue" has pushed us to reach
 8 a new length record for a draft in OEIS: 32 standard A4 pages in Word (I have tested the length of this webpage using Word) . This is almost double as the length of my full version article on VBGC!).

14:3 **Andrei-Lucian Dragoi:** In conclusion, it is clear that I cannot condense VBGC to one sentence assertion
 2 as BGC is: it is impossible! VBGC needs a very complex phrase (as Mr. Arndt requested a self-contained formulation of VBGC which is almost like a "salad" of 3 different relatively new concepts put together: i-PIPs, VBGC and $f(a,b)$ sequence)

Tue00:3 **Michel Marcus:** It is you who are filling this discussions with long texts. Not me nor Joerg.
 Feb0
 07

00:3 **Michel Marcus:** As for the other sequences , they could be rather short. For instance for $f(2,2)$ Name :
 8 even numbers that cannot be represented as a sum of distinct prime_indexed primes, Data : 3 lines.
 Comment: it is conjectured that $5128=2*2564$ is the last term see link. Link: your link . Program : pari scripts not exceeding 5 lines in all. . . . And that would be it.

04:2 **Andrei-Lucian Dragoi:** I have a tendency to write more as I have a reflex to give at least one or two
 1 arguments (which I consider strong) for each modification, suggestion, review. It is not in my nature to give "verdicts": I just make argued proposals (and these occupy more discussion lines obviously). However, from my experience, the reviewers generally have the reflex to give verdicts with minimal (and sometimes even questionable arguments): I have a large collection of such discussions with reviewers (and this discussion will also be integrated into that collection). However, I shall seriously take into account the suggestion that I may at least propose to entries for at least $f(2,1)$ and $f(2,2)$: I am still expecting the final decision from Mr. Greathouse.

#38 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 09:57:40 EST 2017

CO The Vertical (generalization of) the analytical Binary variant Goldbach of Conjecture (VBG
 MM C) proposed by states Andrei-Lucian that:
 EN "For Dragoi any pair of named finite a "meta P-on-
 TS conjecture", as it states iteration orders $n \geq 0$ infinite and number $k \geq 0$ of BGC prime-like indexed conjectures primes (PIPs) n PIP (stronger than or BGC n P) which and k PIP (k P), there will always exist a single finite positive value for the function $f(n, k) = f(k, n) \geq 3$ so that any even generically positive named integer $2m > 2f(n, k)$ can be written as the sum of at least one pair of distinct PIPs (n_{Px}, k_{Py}), with positive integer indexes $x > 0$, and $y > 0$ being $n_{Px} = P[P(P(\dots P(x)))]$ (the x -th n P defined by n equivalent P-on-P iterations) and $k_{Py} = P[P(P(\dots P(y)))]$ (the y -th k P defined by k equivalent P-on-P iterations)."

The Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) proposed by Andrei-Lucian and Dragoi inductive can variant be named a "meta-conjecture", as analytical variant, which states both an apply infinite number any of super-BGC-primelike family conjectures (of stronger any than iteration BGC) which order are i , generically named " i -primeths" by VBGC(n, k), with VBGC(0,0) being equivalent to the non-trivial author variant of BGC. $T(n, k)$ may be considered a meta-sequence containing conjectural VBGC-elements.

P(x) or VBGC P is area both meta-conjecture used that as have alternative been notations verified for the pairs $(n, k) = (0, 0), (1, 0), (2, 0), (3, 0), (1, 1), (2, 1)$ and $(2, 2)$ up to the any limit $2m = 10^{10}$. VBGC(0,0) is prime equivalent from to the non-trivial set form of BGC and is associated with all (natural $f(0, 0) = 3$. VBGC(1,0) primes is associated indexed with as: $Pf(1, 0) = f(0, 1) = 3$. VBGC(2, P, 0) is associated with $f(2, 0) = 2564$. VBGC(1,1) is associated with $f(1, 1) = 40\ 306$. VBGC(3,0) is associated with $f(3, P, 0) = f(0, 3) = 5, \dots, P251542$. VBGC(\ast), \dots , $(2, 1)$ is associated with positive $f(2, 1) = f(1, 2) = 1765126$. VBGC(2,2) is integer associated index with $x > 0$. $f(2, 2) = 161352166$."

The generic i (prime indexed primes) set (shortly named i -primeth) noted as i -P (with positive integer $i \geq 0$ measuring the number of P-on-P iterations) can be defined (and noted) as such: $0_{Px} = P(x)$ (zero iterations), $1_{Px} = P[P(x)]$ (one iteration), $2_{Px} = P[P(P(x))]$ (two iterations), \dots , $n_{Px} = P[P(P(\dots P(x)))]$ (n P on P iterations), \dots , $k_{Px} = P[P(P(\dots P(x)))]$ (k P on P iterations), $i_{Px} = P[P(P(\dots P(x)))]$ (i P on P iterations), \dots . All primes i_{Px} with all indexes $x > 0$ and $i \geq 0$ form the generic subset i -P. The set of all primes can be noted as 0 -P and all generic sets i -P with $i > 0$ are subsets of 0 -P.

The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration orders $n \geq 0$ and $k \geq 0$, there will always exist a single finite positive value for the function $f(n, k) = f(k, n) \geq 3$ so that any even positive integer $2m > 2f(n, k)$ can be written as the sum of at least one pair of distinct i -primeths (n_{Px}, k_{Py}), with positive integer indexes $x > 0$ and $y > 0$. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with $f(0, 0) = 3$. VBGC(1,0) is associated with $f(1, 0) = f(0, 1) = 3$. VBGC(2,0) is associated with $f(2, 0) = 2564$. VBGC(1,1) is associated with $f(1, 1) = 40\ 306$. VBGC(3,0) is associated with $f(3, 0) = f(0, 3) = 251542$. VBGC(2,1) is associated with $f(2, 1) = f(1, 2) = 1765126$. VBGC(2,2) is associated with $f(2, 2) = 161352166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration orders $n \geq 0$ and $k \geq 0$, any even positive integer $2m > 2 \cdot \{2^{[(n+1) \cdot (k+2) \cdot (n+k+1)]}\}$ can be written as the sum of at least one pair of distinct i -primeths PIPs (n_{Px}, k_{Py}), with the positive integer indexes $x > 0$ and $y > 0$."

VBGC is a meta-conjecture that have been verified for the pairs $(n, k) = (0, 0), (1, 0), (2, 0), (3, 0), (1, 1), (2, 1)$ and $(2, 2)$ up to the limit $2m = 10^{10}$.

CR Cf. [A000040](#), [A006450](#), [A038580](#), [A049090](#), [A049203](#), [A049202](#), [A057849](#), [A057850](#), [A057851](#), [A057847](#), [A058332](#), [A093047](#), [A002372](#), [A002375](#)

ST proposed
 AT editing
 US

#37 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 03:42:53 EST 2017

STATUS editing
 proposed

Discussion

- Mon Feb 06 03:44 **Andrei-Lucian Dragoi**: I have done this last modification of the name that you have requested: "Array read by antidiagonals where $T(n,k)$ is half of the conjectured largest even integers that cannot be expressed as the sum of two distinct $n_{\text{(prime indexed prime)}}$ and an $k_{\text{(prime indexed prime)}}$ ". What does the abbreviation "tbc" (you have used) mean?
- 04:26 **Joerg Arndt**: This makes my head spin. Suggest to drop all jargon and give a clear and self-contained definition. If the terms are just conjectural then the sequence is not likely to be accepted for publication.
- 05:51 **Michel Marcus**: tbc meant to be continued
- 09:38 **Andrei-Lucian Dragoi**: The $T(n, k)$ (meta-)sequence associated with VBGC may be conjectural, but is more elegant than any other Goldbach-conjecture-related sequence on OEIS (like A002372, A002375) AMD also very hard (and unlikely!) to be disproved in the future (even up to the limit 10^{18} , which is the approximate limit to which VBGC was tested until present), as the comets of VBGC have an obvious particular pattern (similar to the classical BGC comet) and because VBGC is very useful in speeding up the algorithms of BGC verification on limits much larger than 10^{18} . In this way, VBGC may significantly help many teams of researchers on BGC in their computing algorithms: publishing VBGC on OIES will be helpful for these teams and other teams too. It is not correct that I haven't been informed about this anti-conjecture policy (BGC sequences are accepted on OEIS but the more general and elegant VBGC meta-sequence is not): the discussion on this entry was very time-consuming and mentioning this specific policy from the start would have spared a lot of our time. However, I am also aware that VBGC is part of a new species of conjectures called "meta-conjectures" and a new species of conjectural sequence called "meta-sequence": it is a reflex for the mainstream to oppose resistance to the publication of such new (radical?) concepts. Many businessmen have refused the inventor of the "copy machine": but the one who believed in that idea and produced it was the Xerox company, AND now xerox is a synonym for a copy-machine. I think that BGC will be soon replaced with the more general VBGC, which is much more seductive and useful!
- 09:42 **Andrei-Lucian Dragoi**: In conclusion, I shall try to continue the modifications requested by Mr. Joerg Arndt, starting with a more condensed, clear and self-contained definition.
- 09:45 **Andrei-Lucian Dragoi**: I have also added two additional sequences in the CROSSREF section: A002372, A002375.

#36 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 03:42:41 EST 2017

NA ~~Array read by antidiagonals where $T(n,k)$ contains theis halveshalf of the conjectured~~
 ME largest even integers that cannot be expressed as the sum of two distinct $n_{\text{(prime indexed prime)}}$ and an $k_{\text{(prime indexed prime)}}$ according to the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC). $T(n,k)$ is represented as a triangular table read by antidiagonals: $[T(0,0)]$, $[T(0,1), T(1,0)]$, $[T(0,2), T(1,1), T(2,0)]$.

STA proposed
 TUS editing

#35 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 03:37:33 EST 2017

STATUS editing
 proposed

Discussion

- Mon Feb 06 03:38 **Andrei-Lucian Dragoi**: I have also added the "distinct" term/attribute in the NAME section (which is very important for the non-triviality of VBGC)
- 03:39 **Michel Marcus**: The last part of name : "according to the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC). $T(n,k)$ is represented as a triangular table read by antidiagonals: $[T(0,0)]$, $[T(0,1), T(1,0)]$, $[T(0,2), T(1,1), T(2,0)]$." is not necessary ... tbc
- 03:40 **Michel Marcus**: Array read by antidiagonals where $T(n,k)$ is half of the conjectured largest even integers that cannot be expressed as the sum of two distinct $n_{\text{(prime indexed prime)}}$ and an $k_{\text{(prime indexed prime)}}$.

#34 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 03:37:23 EST 2017

NAME $T(n,k)$ contains the halves of the conjectured largest even integers that cannot be expressed as the sum of two ~~and~~ distinct n (prime indexed prime) and an k (prime indexed prime) according to the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC). $T(n,k)$ is represented as a triangular table read by antidiagonals: $[T(0,0)], [T(0,1), T(1,0)], [T(0,2), T(1,1), T(2,0)]$.

STATUS proposed
editing

#33 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 03:23:33 EST 2017

STATUS editing
proposed

#32 by [Andrei-Lucian Dragoi](#) at Mon Feb 06 03:23:22 EST 2017

NAME Array $T(n,k)$ contains the halves of the conjectured largest even integers that cannot be expressed as ~~read the by sum antidiagonals of where an~~ $T(n,k)$ (prime indexed prime) ~~are and the an last k (prime exceptions indexed generated prime)~~ according ~~by to~~ the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC). $T(n,k)$ ~~is~~ represented as a triangular table read ~~super primes (called by i-primeths)~~ antidiagonals: $[T(0,0)], [T(0,1), T(1,0)], [T(0,2), T(1,1), T(2,0)]$.

COMMENT The Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) proposed by Andrei-Lucian Dragoi can be named a "meta-conjecture", as it states an infinite number of BGC-like conjectures (stronger than BGC) which are generically named $VBGC(a_n, b_k)$, with $VBGC(0,0)$ being equivalent to the non-trivial variant of BGC. The generic ~~i-primeth~~ (prime generic indexed primes) set (shortly named i-primeth) noted as i_P (with positive integer $i \geq 0$ measuring the number of P-on-P iterations) can be defined (and noted) as such: $0_P x = P(x)$ (zero iterations), $1_P x = P[P(x)]$ (one iteration), $2_P x = P[P(P(x))]$ (two iterations), ..., $n_P x = P[P(P(...P(x)))]$ (n P-on-P iterations), ..., $k_P x = P[P(P(...P(x)))]$ (k P-on-P iterations), $i_P x = P[P(P(...P(x)))]$ (i P-on-P iterations), ... All primes $i_P x$ with all indexes $x > 0$ and $i \geq 0$ form the generic subset i_P . The set of all primes can be noted as 0_P and all generic sets i_P with $i > 0$ are subsets of 0_P .

The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a_n \geq 0$ and $b_k \geq 0$, there will always exist a single finite positive value for the function $f(a_n, b_k) = f(b_k, a_n) \geq 3$ so that any even positive integer $2m > 2f(a_n, b_k)$ can be written as the sum of at least one pair of distinct i-primeths ($a_n P_x, b_k P_y$), with positive integer indexes $x > 0$ and $y > 0$. $VBGC(0,0)$ is equivalent to the non-trivial form of BGC and is associated with $f(0,0) = 3$. $VBGC(1,0)$ is associated with $f(1,0) = f(0,1) = 3$. $VBGC(2,0)$ is associated with $f(2,0) = 2564$. $VBGC(1,1)$ is associated with $f(1,1) = 40\ 306$. $VBGC(3,0)$ is associated with $f(3,0) = f(0,3) = 251542$. $VBGC(2,1)$ is associated with $f(2,1) = f(1,2) = 1765126$. $VBGC(2,2)$ is associated with $f(2,2) = 161352166$."

The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration-orders $a_n \geq 0$ and $b_k \geq 0$, any even positive integer $2m > 2 \cdot \{2^{[(a_n+1) \cdot (b_k+2) \cdot (a_n+b_k+1)]}\}$ can be written as the sum of at least one pair of distinct i-primeths ($a_n P_x, b_k P_y$), with the positive integer indexes $x > 0$ and $y > 0$."

VBGC is a meta-conjecture that have been verified for the pairs $(a_n, b_k) = (0,0), (1,0), (2,0), (3,0), (1,1), (2,1)$ and $(2,2)$ up to the limit $2m = 10^{10}$.

EXAMPLE $f(0,0) = 3$ corresponds to $VBGC(0,0)$ which is equivalent to the non-trivial Binary Goldbach Conjecture which states that: "Every/any even integer $2m > (2 \cdot 3) [m > f(0,0)]$ can be always written as the sum of at least one pair of distinct odd primes P_x and P_y (which are equivalent to $a_n P_x = 0_P x$ and $b_k P_y = 0_P y$, as $a_n = 0$ and $b_k = 0$ in this case)

STATUS proposed
TUS editing

#31 by [Andrei-Lucian Dragoi](#) at Sun Feb 05 04:53:39 EST 2017

STATUS editing
proposed

Discussion

Sun Feb 05 04:57 **Andrei-Lucian Dragoi**: In my conclusion, the $f(a,b)$ sequence of VBGC is the maximum

condensation of a huge computing work (for me and my friend George Anescu, which has a PhD in mathematics), as it took many 2-3 days of our computers to verify these last exceptions (cut-offs) up to $2m=10^{10}$: in this huge rate of "compressing" stands the beauty and elegance of VBGC.

04:58 **Andrei-Lucian Dragoi**: Erata: "who has a PhD in mathematics"

04:59 **Andrei-Lucian Dragoi**: Erata: "as it took 2-3 days"

05:02 **Andrei-Lucian Dragoi**: Erata: "VBGC(1,1) states that all even numbers greater than $2*f(1,1)=2*40\ 306=80\ 612$ can be written as the sum of at least one pair of distinct super-primes (1-primeths) 1_{Px} and 1_{Py} "

05:04 **Andrei-Lucian Dragoi**: Yes, $f(1,1)=40306!$ I have seen your comment just now! Thank you for the patience to write that script and verify our result and the literature!

05:07 **Andrei-Lucian Dragoi**: I now have to leave from home. Have a nice day and thank you again for your detailed and patient review! I shall probably re-login in the evening to check your new comments.

05:49 **Michel Marcus**: $T(n, k)$ is the usual way to denote an entry in an array : look for sequences with keyword tabl

05:52 **Michel Marcus**: About $T(0, 2)$: I get these numbers 2, 4, 6, 20, 26, 32, 56, 80, 86, 116, 122, 152, 176, 214, 218, 248, 332, 382, 422, 446, 556, 586, 596, 620, 634, 904, 928, 1138, 1144, 1180, 1354, 1388, 1390, 1474, 1600, 1684, 3112, 3554, 5128 with $5128=2*2564$. But for me it is only conjectural,

05:53 **Michel Marcus**: What do other editors think ? Would it be a good idea to enter these 2 sequences mentioned in the above discussions ?

05:53 **Michel Marcus**: Or their complement ?

06:35 **Andrei-Lucian Dragoi**: I now understand that "T" comes from the "Table" format of some sequences. $T(0,2)$ is the last exception of the sub-conjecture VBGC(0,2) which is equivalent to VBGC(2,0), as $f(a, b)=f(b, a)$ (symmetry over a and b): in this view 2564 can be considered "conjectural". However, I have tested VBGC (2,0) and it verifies up to 10^{10} , which makes this huge gap between 2564 and 10^{10} probably much more than "conjectural".

06:37 **Andrei-Lucian Dragoi**: To which limit have you verified VBGC(2,0) and its associated $f(0,0)$? I suppose that you verified it up to some orders of dimensions less than 10^{10} .

07:03 **Andrei-Lucian Dragoi**: As VBGC is a meta- conjecture, $f(a, b)$ is in fact a meta- sequence that contains the cut-offs from which all the even sequences can be easily deducted: I don't think it is useful to occupy many redundant entries of OEIS with all these secondary sequences for each $f(a, b)$ value. I have published VBGC on ResearchGate only and I have no editor, as I want VBGC to be freely available for all researchers.

07:18 **Andrei-Lucian Dragoi**: I propose to mention this secondary sequences of evens in the comments section or in the formula section: it is the best solution in my opinion. What do you think?

07:20 **Andrei-Lucian Dragoi**: I have managed to enter this page from my phone and answer to you from travel. However, the "Add note to discussion" button disappears when writing more than 4 lines from in this text box!

14:40 **Michel Marcus**: No I didn't go this high

14:54 **Andrei-Lucian Dragoi**: The relatively large gaps between all $f(a, b)$ values computed until now and the limit tested of 10^{10} is strikingly similar to that of BGC comet: all the comets generated by VBGC(a, b) have this interesting behavior of having some critical values (last exceptions/cut-offs) above which all the evens can be written as the sum of i-primeths pairs aP_x and bP_y and the function that counts Goldbach pairs seems to not return to zero no more for none larger even than the cut-off (these last exceptions are points above some non-sufficiently large Goldbach partitions matrices)

Mon Feb 06 00:19 **Michel Marcus**: Suggestion for name: $T(n,k)$ is the conjectured larger integer that cannot be expressed as the sum of an $n_{(prime\ indexed\ prime)}$ and an $k_{(prime\ indexed\ prime)}$. And then in comments explain what is an $n_{(prime\ indexed\ prime)}$ with $0_{a\ prime}$, $1_{a\ prime\ indexed\ prime}$,

etc.

- 00:22 **Michel Marcus**: Also the comments should say about 10^{10} (like you did) and this should be enough and could replace the rather lengthy current comments (since you gave a link to your pdfs).
- 00:35 **Michel Marcus**: Small change $T(n,k)$ is half the conjectured larger even integer
- 00:46 **Michel Marcus**: By the way I am not sure why you have $T(0,0)=3$?
- 03:22 **Andrei-Lucian Dragoi**: In fact $T(n,k)$ is the conjectured largest (instead of "larger") integer that cannot be expressed as the sum of an n_* (prime indexed prime) and an k_* (prime indexed prime). I think this formulation variant for the name section is the most explicit and resumative of all (as it also contains the name of the meta-conjecture VBGC as an important keyword): " $T(n,k)$ contains the halves of the conjectured largest even integers that cannot be expressed as the sum of an n_* (prime indexed prime) and an k_* (prime indexed prime) according to the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC). $T(n,k)$ is represented as a triangular table read by antidiagonals: $[T(0,0)]$, $[T(0,1), T(1,0)]$, $[T(0,2), T(1,1), T(2,0)]$." As I used P_x and P_y in the formulation of VBGC. I have also mentioned the brief name i -primeth as a synonym for i_* (prime indexed prime), as it is easy to write it. I have changed a to n and b to k , so that (a,b) pairs become (n,k) pairs naming the orders of i -primeths (n -primeths and k -primeths), I have kept 0_P a prime, 1_P a prime indexed prime (instead of 0_a and 1_a) because I also use indexes x,y in the formulation of VBGC, and it looks more explicit to say 0_{P_x} instead of 0_{ax} , as capital "P" (not a , which is already used as index) is standardly used to denote primes. $T(0,0)$ corresponds to VBGC $(0,0)$ which is equivalent to the non-trivial variant of BGC (see the last paragraph of the 6th page and the first paragraph of the 7th page of my full article on BGC) where I explain the difference between the BGC referring also to $2p=p+p$ trivial evens (which starts from the last exception $4=2*2$) and the non-trivial BGC which starts from the last exception $6=2*3$ and refers only to non-trivial evens $2m=P_x+P_y$, with $x < y$ and $x,y > 1$.

#30 by [Andrei-Lucian Dragoi](#) at Sun Feb 05 04:53:32 EST 2017

NAME	Array read by antidiagonals where $T(n, k)$ are the last exceptions associated generated with by the Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) on super-primes (called i -primeths).
STATUS	proposed editing

<https://oeis.org/history?seq=A281929&start=10>

Revision History for [A281929](#)

(Underlined text is an addition; strikethrough text is a ~~deletion~~.)

[newer changes](#) | Showing entries 11-20 | [older changes](#)

[A281929](#)

#49 by [Andrei-Lucian Dragoi](#) at Thu Feb 09 12:37:57 EST 2017

STATUS	editing proposed
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Discussion

Thu Feb 09 14:01 **Michel Marcus**: Yes, I think you can submit a new sequence about $T(0, 2)$ giving those even n

that are not the sum of terms of A000040 and A038580.

#48 by [Andrei-Lucian Dragoi](#) at Thu Feb 09 12:37:47 EST 2017

DATA 3, 3, 3, 2564, 40306, 2564, 251542125771, 1765126, 1765126, 251542125771
 EXAMPL 0: 3 3 2564 251542125771 124083266204163 5210709582605354
 E
 79
 3: 251542125771 ?...
 4: 12408326 6204163 ?...
 5: 521070958 260535479 ?...
 3: 251542125771 1765126 1765126 251542125771
 4: 124083266204163 ? 161352166 ? ? ? 6204163
 5: 521070958260535479 ? ? ? ? 521070958260535479
 STATUS proposed
 editing

#47 by [Andrei-Lucian Dragoi](#) at Wed Feb 08 12:36:18 EST 2017

STATUS editing
 proposed

Discussion

Wed Feb 08 14:36 **Michel Marcus:** mulțumesc

14:58 **Andrei-Lucian Dragoi:** Cu plăcere, pentru răbdare!

16:33 **Andrei-Lucian Dragoi:** If "traduced" in simple sequences, VBGC meta-sequence can be translated in a simple data sequence for each sub-conjecture VBCG(a,b). Also, each VBGC(a,b) sub-conjecture can produce a data sequence containing the number of Goldbach partitions (associated with each VBGC[a,b]) which is in average a smaller number with the growing of a and b.

16:33 **Andrei-Lucian Dragoi:** These are the secondary VBGC(a,b) Goldbach comets!

Thu Feb 09 00:08 **Michel Marcus:** I suggest that you submit one sequence about T(0,2). Just this one for the moment, ok ?

02:10 **Andrei-Lucian Dragoi:** Do you want me to submit a different entry for T(2,0) besides this current one, in parallel with it? (as I haven't received a final decision yet from Mr. Greathouse on the VBGC meta-sequence that offers a synthetic view on all sub-conjectures and secondary sequences).

12:42 **Andrei-Lucian Dragoi:** I have corrected the terms: T(5,0)=521 070 958 to its half T(5,0)=260 535 479, T(4,0)=12 408 326 to its half T(4,0)=6 204 163 and T(3,0)=251 542 to its half T(3,0)=125 771 (as I have entered them as doubled by mistake) both in the Data section and the Comments section.

#46 by [Andrei-Lucian Dragoi](#) at Wed Feb 08 12:35:03 EST 2017

COMMENTS ~~The analytical variant of VBGC states that: "For any pair of finite P-on-P iteration orders $n \geq 0$ and $k \geq 0$ of prime indexed primes (PIPs) n_{PIP} (or n_P) and k_{PIP} (k_P), there will always exist a single finite positive value for the function $f(n,k) = f(k,n) \geq 3$ so that any even positive integer $2m > 2f(n,k)$ can be written as the sum of at least one pair of distinct PIPs (n_{Px}, k_{Py}) , with positive integer indexes $x > 0$ and $y > 0$. $n_{Px} = P[P(P(\dots P(x)))]$ (the x -th n_P defined by n_P on P iterations) and $k_{Py} = P[P(P(\dots P(y)))]$ (the y -th k_P defined by k_P on P iterations)."~~
~~These terms A haven't (prime-index been prime) (n PIP) is found noted as $n_{Px} = P[P(P(\dots P(x)))]$ (the x -th n_P defined by n_P on P iterations). The same for the y -th $k_{Py} = P[P(P(\dots P(y)))]$ (the largest y -th integers k_P while defined searching by up k to P -on- P 10^{10} iterations).~~
 For both the analytical and inductive variants of the meta-conjecture VBGC, see the links.
 VBGC(n,k) and all these T(n,k) terms have been tested/found as the largest last exception integers while searching up to 10^{10} .
 LINKS A. L. Dragoi, The

"Vertical" (generalization of) the Binary Goldbach's conjecture (VBGC 1.2) as applied on "iterative" primes with (recursive) prime indexes (i-primeths) (the conjecture only) (DOI: 10.13140/RG.2.2.14014.28484) (January 2017).

A. L. Dragoi, The "Vertical" (generalization of) the Binary Goldbach's conjecture (VBGC 1.2) as applied on "iterative" primes with (recursive) prime indexes (i-primeths) (full article) (DOI: 10.13140/RG.2.2.27963.62245) (January 2017).

FORMULA	$T(n, k) = \lfloor 2^{[(n+1) * (k+2) * (n+k+1)]} \rfloor$ (conjectured). See 2), for links. n=k=0; $T(n, k) < 2^{[(n+1) * (k+1) * (n+k+3) / a] - (2n)}$, for (n=k) AND n>0 $T(n, k) < 2^{[(n+1) * (k+1) * (n+k+2)] - (n+k-2)}$, for (n<>k) AND (n>0 OR k>0) (conjectured). See links.
EXAMPLE	0: 3 _____ 3 2564 251542 _____ ? 12408326 521070958 1: 3 _____ 40306 1765126 _____ ? ?... 2: 2564 _____ 1765126 161352166 _____ ? ?... 3: 251542 _____ ? ?... 4: _____ ? : 12408326 ?... 5: 521070958 ? 1: 3 _____ 3 2: 2564 _____ 40306 2564 3: 251542 _____ 1765126 1765126 251542 4: _____ ? ? : 12408326 ? 161352166 ? ? 5: 521070958 ? ? ? ? 521070958
STATUS	proposed editing

#45 by Michel Marcus at Wed Feb 08 01:32:59 EST 2017

STATUS editing
 proposed

Discussion

Wed Feb 08 01:36 **Michel Marcus:** Bur sorry no time now

12:20 **Andrei-Lucian Dragoi:** I have done all the "trimmings" (and the secondary needed reformulations) as requested. I have also added the newly computed terms T(4,0) and T(5,0). I have also corrected the updated function that limits superiorly T(n,k) in the formula section.

#44 by Michel Marcus at Wed Feb 08 01:30:40 EST 2017

COMMENTS These terms have been found as the largest integers while searching up to 10^10.

Discussion

Wed Feb 08 01:32 **Michel Marcus:** The 1st paragraph would still need some trimming; just explain what are n- (indexed primes) and refer to the links for the conjectures

#43 by Michel Marcus at Wed Feb 08 01:29:42 EST 2017

COMMENTS ~~The Vertical (generalization of) the Binary Goldbach Conjecture (VBGC) proposed by Andrei-Lucian Dragoi can be named a "meta conjecture", as it states an infinite number of BGC-like conjectures (stronger than BGC) which are generically named VBGC(n,k), with VBGC(0,0) being equivalent to the non-trivial variant of BGC. T(n,k) may be considered a meta-sequence containing conjectural elements.~~

~~VBGC is a meta conjecture that have been verified for the pairs (n,k)=(0,0), (1,0), (2,0), (3,0) (1,1), (2,1) and (2,2) up to the limit 2m=10^10. VBGC(0,0) is equivalent to the non-trivial form of BGC and is associated with f(0,0)=3. VBGC(1,0) is associated with f(1,0)=f(0,1)=3. VBGC(2,0) is associated with f(2,0)=2564. VBGC(1,1) is associated with f(1,1)=40 306. VBGC(3,0) is associated~~

~~with $f(3,0)=f(0,3)=251542$. VBGC(2,1) is associated with
 $f(2,1)=f(1,2)=1765126$. VBGC(2,2) is associated with
 $f(2,2)=161352166$.~~"

#42 by [Michel Marcus](#) at Wed Feb 08 01:27:20 EST 2017

COMMENTS ~~The inductive variant of VBGC states that: "For any pair of finite P-on-P iteration orders $n \geq 0$ and $k \geq 0$, any even positive integer $2m > 2 * (2^{[(n+1)*(k+2)*(n+k+1)])}$ can be written as the sum of at least one pair of distinct PIPs (n_{Px}, k_{Py}) , with the positive integer indexes $x > 0$ and $y > 0$."~~

FORMULA $T(n, k) = 2^{[(n+1)*(k+2)*(n+k+1)]}$ (conjectured). See links.

STATUS proposed
editing

#41 by [Michel Marcus](#) at Tue Feb 07 15:19:25 EST 2017

STATUS editing
proposed

#40 by [Michel Marcus](#) at Tue Feb 07 15:03:46 EST 2017

NAME Array read by antidiagonals where $T(n,k)$ is half of the conjectured largest even integers that cannot be expressed as the sum of two distinct $n_{(prime\ indexed\ prime)}$ and an $k_{(prime\ indexed\ prime)}$.

STATUS proposed
editing

Discussion

Tue Feb 07 15:10 **Michel Marcus:** For me the comment section is still too BIG. For the GBC VGBC and all that etc , conjectures, can't just refer to the links section. And just give the 10^{10} limit. And the conjectured formula for $T(n,k)$.

15:19 **Michel Marcus:** For instance I don't think these sentences like VBGC(2,0) is associated with $f(2,0)=2564$ bring much information.

<https://oeis.org/history?seq=A281929>

Revision History for [A281929](#)

(Underlined text is an addition; strikethrough text is a ~~deletion~~.)

Showing entries 1-10 | [older changes](#)

[A281929](#) Numbers k such that $(19*10^k + 119)/3$ is prime.
([history](#); [edit](#); [published version](#))

#59 by [Bruno Berselli](#) at Sat Feb 11 17:45:31 EST 2017

STATUS proposed
approved

#58 by [Robert Price](#) at Sat Feb 11 17:31:00 EST 2017

STATUS editing
proposed

#57 by [Robert Price](#) at Sat Feb 11 17:30:52 EST 2017

NAME ~~allocated~~Numbers k such ~~for~~that $(19*10^k + 119)/3$ ~~Robert is Price~~prime.

DATA 1, 2, 3, 8, 10, 12, 67, 188, 192, 228, 363, 372, 658, 1748, 1866, 2539, 7897, 10399, 10519, 12872, 14796, 16773, 24736, 30456, 46425, 57316, 65572, 75338

OFFSET 1,2

COMMENTS For $k > 1$, numbers such that the digit 6 followed by $k-2$ occurrences of the digit 3 followed by the digits 73 is prime (see Example section).
 $a(29) > 10^5$.

LINKS Makoto Kamada, [Factorization of near-repdigit-related numbers](http://stdkmd.com/nrr).
Makoto Kamada, [Search for 63w73](http://stdkmd.com/nrr/prime/primedifficulty.txt).

EXAMPLE 3 is in this sequence because $(19 \cdot 10^3 + 119)/3 = 6373$ is prime.
Initial terms and primes associated:
 $a(1) = 1, 103$;
 $a(2) = 2, 673$;
 $a(3) = 3, 6373$;
 $a(4) = 8, 633333373$;
 $a(5) = 10, 6333333373$; etc.

MATHEMATIC A Select[Range[0, 100000], PrimeQ[(19*10^# + 119)/3] &]

CROSSREFS Cf. [A056654](#), [A268448](#), [A269303](#), [A270339](#), [A270613](#), [A270831](#), [A270890](#), [A270929](#), [A271269](#).

KEYWORD allocated
nonn,more,hard

AUTHOR [Robert Price, Feb 11 2017](#)

STATUS approved
editing

#56 by [Robert Price](#) at Sat Feb 11 17:30:52 EST 2017

NAME allocated for Robert Price

KEYWORD recycled
allocated

#55 by [Charles R Greathouse IV](#) at Sat Feb 11 16:25:37 EST 2017

STATUS editing
approved

#54 by [Charles R Greathouse IV](#) at Sat Feb 11 16:25:27 EST 2017

NAME Array read by antidiagonals where $T(n,k)$ is half of the conjectured largest even integers that cannot be expressed as the sum of two distinct n -(prime-indexed-prime) and a k -(prime-indexed-prime).

DATA 3, 3, 3, 2564, 40306, 2564, 125771, 1765126, 1765126, 125771

OFFSET 0,1

COMMENTS A n -(prime-index-prime) (n -PIP) is noted as $n_P_x = P[P(P(\dots P(x)))]$ (the x -th n_P defined by n P -on- P iterations). The same for the y -th k -PIP $k_P_y = P[P(P(\dots P(y)))]$ (the y -th k_P defined by k P -on- P iterations).
VBGC is a meta-conjecture that has an analytical variant (aVBGC), an inductive variant (iVBGC) and also a secondary inductive variant VBGC (siVBGC[a,0]): see the links.
aVBGC, iVBGC and siVBGC[a,0] have been verified on the interval $[4, 10^{10}]$.

LINKS A. L. Dragoi, [The "Vertical" \(generalization of\) the Binary Goldbach's conjecture \(VBGC 1.2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i primeths\)](http://dragoi.com/VBGC_latest_extract.pdf) (the conjecture only) (DOI: 10.13140/RG.2.2.14014.28484) (2017).
A. L. Dragoi, [The "Vertical" \(generalization of\) the Binary Goldbach's conjecture \(VBGC 1.2\) as applied on "iterative" primes with \(recursive\) prime indexes \(i primeths\)](http://dragoi.com/VBGC_latest_full.pdf) (full article) (DOI: 10.13140/RG.2.2.27963.62245) (2017).

FORMULA $T(n, k) < 2^{[(n+1) \cdot (k+1) \cdot (n+k+2)]}$, for $n=k=0$;
 $T(n, k) < 2^{[(n+1) \cdot (k+1) \cdot (n+k+3)] - (2n)}$, for $(n=k)$ AND $n > 0$
 $T(n, k) < 2^{[(n+1) \cdot (k+1) \cdot (n+k+2)] - (n+k-2)}$, for $(n < k)$ AND $(n > 0$ OR $k > 0)$
 $T(n, 0) < e^{(4n)}$ for $n > 0$ (the siVBGC[a,0])
(conjectured). See links.

EXAMP As a square array:

```
LE  0:      3      3      2564  125771  6204163  260535479
    1:      3      40306  1765126  ?...
    2:  2564      1765126  161352166  ?...
    3: 125771          ?...
    4: 6204163          ?...
    5: 260535479       ?...
    ...
```

As a triangular array:

```
0:      3
1:      3      3
2:  2564      40306      2564
3: 125771      1765126      1765126  125771
4: 6204163          ?  161352166      ?      ?      6204163
5: 260535479       ?          ?      ?      ?      260535479
    ...
```

~~$f(0,0)=3$ corresponds to VBGC(0,0) which is equivalent to the non-trivial Binary Goldbach Conjecture which states that: "Every/any even integer $2m > (2*3)$ [$m > f(0,0)$] can be always written as the sum of at least one pair of distinct odd primes P_x and P_y (which are equivalent to $n_{P_x=0}$ P_x and $k_{P_y=0}$ P_y , as $n=0$ and $k=0$ in this case)~~

CROSS REFS Cf. A000040, A006450, A038580, A049090, A049203, A049202, A057849, A057850, A057851, A057847, A058332, A093047, A002372, A002375

KEYWORD nonn,tabl,more,changed
RD recycled

AUTHOR ~~7 Feb 02 2017~~

STATUS proposed
S editing

Discussion

Sat Feb 11 16:25 **Charles R Greathouse IV**: As Joerg said this isn't in, or near, publishable form. Perhaps the OEIS is not a good fit for what you're trying to do. I looked at your PDFs but I did not find them elucidating, possibly a deficiency on my part, but in any case not leaving me with any usable material to repair this sequence submission. Andrei-Lucian, good luck with your conjecture; I hope you will make progress with it and perhaps find a more appropriate forum for it.

#53 by [Andrei-Lucian Dragoi](#) at Fri Feb 10 04:21:46 EST 2017

STATUS editing
proposed

Discussion

Fri Feb 10 04:22 **Andrei-Lucian Dragoi**: I have simplified notation in the title section and the comments section: minor changes.

04:23 **Andrei-Lucian Dragoi**: I have just submitted T(2,0) as A282251.

Sat Feb 11 12:27 **Joerg Arndt**: IMO this one is beyond repair. I certainly cannot help here anymore in any way. The present state is not nearly good enough for publishing.

#52 by [Andrei-Lucian Dragoi](#) at Fri Feb 10 04:21:05 EST 2017

NAME Array read by antidiagonals where $T(n,k)$ is half of the conjectured largest even integers that cannot be expressed as the sum of two distinct ~~$n_{(prime-indexed-prime)}$~~ and ~~$k_{(prime-indexed-prime)}$~~ .

COMMENTS A ~~$n_{(prime-indexed-prime)}$~~ (n_{PIP}) is noted as $n_{P_x} = P[P(P(\dots P(x)))]$ (the x -th n_P defined by n P-on-P iterations). The same for the y -th k_{PIP} $k_{P_y} = P[P(P(\dots P(y)))]$ (the y -th k_P defined by k P-on-P iterations).

For ~~VBGC is a meta-~~ conjecture that both has the an analytical variant (aVBGC), an inductive variant (iVBGC) and inductive also variants a of secondary the inductive meta- ~~conjecture variant VBGC, (siVBGC[a,0]): see the links.~~

VBGC(n,k) and all these $T(n,k)$ terms have been tested/found as the largest last exception integers while searching up to 10^{10} .

aVBGC, iVBGC and siVBGC[a,0] have been verified on the interval $[4, 10^{10}]$.

FORMULA $T(n,0) < e^{(4n)}$ for $n > 0$ (the secondary VBGC) siVBGC[a,0]
 STATUS proposed
 S editing

#51 by [Andrei-Lucian Dragoi](#) at Thu Feb 09 14:20:01 EST 2017

STATUS editing
 proposed

Discussion

Thu Feb 09 14:21 **Andrei-Lucian Dragoi**: I have also added the secondary VBGC in the formula section:

$T(n,0) < e^{(4n)}$ for $n > 0$ (the secondary VBGC)

14:23 **Andrei-Lucian Dragoi**: I shall propose all the data sequences $T(2,0)$, $T(3,0)$, $T(4,0)$, $T(5,0)$... to OEIS. Is it ok?

14:39 **Michel Marcus**: For the moment, please just submit one sequence. When the format is approved, then you can submit the other ones that are similar using the same "format". Do you understand ?

14:41 **Michel Marcus**: The idea is that we will not have to repeat the same things in 4 or 5 sequences, also you will not receive 4 or 5 times the same messages; also only 1 sequence will spend some time in the drafts, an when the ormat is approved, then we can hope that the other sequences will pass quickly. Do you see ?

14:43 **Michel Marcus**: It is my point of view.

Fri Feb 10 03:29 **Andrei-Lucian Dragoi**: I agree with your point of you: thank you for your disponibility to be more precise and explicit. I shall now start a new data entry for $T(2,0)$

#50 by [Andrei-Lucian Dragoi](#) at Thu Feb 09 14:19:52 EST 2017

FORMULA $T(n,0) < e^{(4n)}$ for $n > 0$ (the secondary VBGC)
 STATUS proposed
 editing

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Last modified February 13 03:43 EST 2017. Contains 282025 sequences.

EMAIL HISTORY WITH OEIS EDITORS

On Monday, February 6, 2017 4:41 PM, "admin@oeis.org" <admin@oeis.org> wrote:

Dear Andrei-Lucian,

Welcome to the Online Encyclopaedia of Integer Sequences. If you wish to discuss any issues on the OEIS or need any help then please contact me.

You may find the following links useful:

https://oeis.org/wiki/OEIS_Help_Page

https://oeis.org/wiki/OEIS_FAQ

https://oeis.org/wiki/Trouble_registering_logging_in_changing_password

Best regards,

Chris Gribble

--

This e-mail was sent by Christopher Hunt Gribble to Andrei-Lucian Dragoi by the "E-mail user" function at OeisWiki.

From: Andrei L [<mailto:dr.dragoi@yahoo.com>]

Sent: Monday, February 6, 2017 15:26

To: Christopher Hunt Gribble

Subject: Re: OeisWiki e-mail

Dear Mr. Gribble,

Regarding my submission (<https://oeis.org/draft/A281929>), I have made some comments and proposed some arguments on my meta-sequence (defined by the meta-conjecture called VBGC). I think that my submission is discriminated for being a meta-conjecture (even if it is well defined mathematically) associated with a meta-sequence with conjectural elements.

Here is my dialog with Mr. Arndt who has suggested me that: "If the terms are just conjectural then the sequence is not likely to be accepted for publication." I didn't find any such a policy in the URLS you have sent me in this email.

Here is the entire dialog. What do you think? I have also modified the section as requested by Mr. Arndt

"4:26

Joerg Arndt: This makes my head spin. Suggest to drop all jargon and give a clear and self-contained definition. If the terms are just conjectural then the sequence is not likely to be accepted for publication.

[tbc meant to be continued] [an insertion from Mr. Michael Marcus that isn't relevant for this dialog]

09:38

Andrei-Lucian Dragoi: The $T(n, k)$ (meta-)sequence associated with VBGC may be conjectural, but is more elegant than any other Goldbach-conjecture-related sequence on OEIS (like A002372, A002375) AND also very hard (and unlikely!) to be disproved in the future (even up to the limit 10^{18} , which is the approximate limit to which VBGC was tested until present), as the comets of VBGC have an obvious particular pattern (similar to the classical BGC comet) and because VBGC is very useful in speeding up the algorithms of BGC verification on limits much larger than 10^{18} . In this way, VBGC may significantly help many teams of researchers on BGC in their computing algorithms: publishing VBGC on OIES will be helpful for these teams and other teams too. It is not correct that I haven't been informed about this anti-conjecture policy (BGC sequences are accepted on OEIS but the more general and elegant VBGC meta-sequence is not): the discussion on this entry was very time-consuming and mentioning this specific policy from the start would have spared a lot of our time.

However, I am also aware that VBGC is part of a new species of conjectures called "meta-conjectures" and a new species of conjectural sequence called "meta-sequence": it is a reflex for the mainstream to oppose resistance to the publication of such new (radical?) concepts. Many businessmen have refused the inventor of the "copy machine": but the one who believed in that idea and produced it was the Xerox company, AND now xerox is a synonym for a copy-machine. I think that BGC will be soon replaced with the more general VBGC, which is much more seductive and useful!

09:42

Andrei-Lucian Dragoi: In conclusion, I shall try to continue the modifications requested by Mr. Joerg Arndt, starting with a more condensed, clear and self-contained definition.

09:45

Andrei-Lucian Dragoi: I have also added two additional sequences in the CROSSREF section: A002372, A002375.

10:10

Andrei-Lucian Dragoi: Of course, there is also a solution to publish all the sequences of all evens smaller than each $T(n,k)$ as separate entries in OEIS, with separate sub-conjectures associated with each $T(n,k)$: BUT this would be an inelegant redundant approach (very time consuming and very redundant). Is this a solution for you? Mr. Michael Marcus suggested this (sub)conjecture-per-(sub)conjecture approach, instead of one meta-sequence associated with the VBGC meta-conjecture.

10:16

Andrei-Lucian Dragoi: I have found this paragraph on OEIS: "Sequences that meet all our requirements stand a much better chance of being approved quickly. That is, they are: interesting, mathematically well defined, written in correct English, and conform to the OEIS formatting style"

([https://oeis.org/wiki/OEIS_FAQ#Q: How long can I expect to wait before my submission is accepted or rejected.3E](https://oeis.org/wiki/OEIS_FAQ#Q:_How_long_can_I_expect_to_wait_before_my_submission_is_accepted_or_rejected.3E)). In my opinion, VBGC meets all these four criteria, as conjectures and meta-conjectures are also mathematically well defined (as "well defined" doesn't necessarily mean "with formal proof": as there are many sequences on OIES referring to Goldbach Conjecture which is a "well defined" conjecture, even if it hasn't a formal proof yet)"

Thank you for your patience and your mediation.
dr. Andrei Dragoi

=====

On Monday, February 6, 2017 7:07 PM, Chris <cgribble263@btinternet.com> wrote:

Dear Andrei,

Under the circumstances, I am sending your issue to Charles Greathouse, an editor-in-chief.

Best regards,
Chris

Andrei L <dr.dragoi@yahoo.com>

To
Chris
Feb 6 at 7:33 PM
Dear Mr. Gribble,

Thank you for your implication. I hope that Mr. Greathouse will be open to a direct (even minimal) dialog to me (using my email: dr.dragoi@yahoo.com), with specific arguments.

My best regards too,
Andrei

The final rejection-decision from Mr. Greathouse

Sat Feb 11 16:25 **Charles R Greathouse IV**: As Joerg said this isn't in, or near, publishable form. Perhaps the OEIS is not a good fit for what you're trying to do. I looked at your PDFs but I did not find them elucidating, possibly a deficiency on my part, but in any case not leaving me with any usable material to repair this sequence submission. Andrei-Lucian, good luck with your conjecture; I hope you will make progress with it and perhaps find a more appropriate forum for it.

Andrei L <dr.dragoi@yahoo.com>

To

Charles Greathouse

Feb 12 at 11:14 PM

Dear Mr. Greathouse,

I do not understand why you consider VBGC as "not appropriate for OEIS", after reading my articles: VBGC is a meta-conjecture (not a simple conjecture as the Binary Goldbach Conjecture[BGC] is). You have many data sequences related to BGC: VBGC simply states that there are an infinite number of BGC-like conjectures that apply on any type of n-prime index prime. I have many readers on ResearchGate (all with PhD in mathematics) that follow the VBGC project and updates and never received such a "non-understandable" issue, on contrary. You are probably not familiar with the n-prime index prime concept (which is a generalization from a simple prime index prime). **I still consider that my submission was discarded because a subjective and not an objective argument, as you actually recognized it in your last comment [cite from Mr. Greathouse: "I looked at your PDFs but I did not find them elucidating, possibly a deficiency on my part"]**. I think this kind of unexplained subjectivity is not a scientific attitude and approach. There is a clear discrimination between BGC and VBGC: maybe because you haven't encountered yet the concept of a "meta-conjecture". Analogously, Goedel's theorems of incompleteness are also a kind of meta- theorems. I am also sure that VBGC will help mathematicians to find a formal proof for BGC in the future. You will surely hear much more on VBGC in the future, as it is much more general and elegant than BGC!

My best regards!

Dr. Andrei Lucian Drăgoi

[Trimis din Yahoo Mail pe Android](#)

On Monday, February 13, 2017 10:03 PM, Charles Greathouse <charles.greathouse@case.edu> wrote:

As I said in your submission, it appears that the OEIS is not a good forum for your meta-conjecture. I don't mean that as a judgment on the value of your work as a whole, just on your choice of medium.

Charles Greathouse
Case Western Reserve University

Andrei L <dr.dragoi@yahoo.com>

To Charles Greathouse Today at 10:43 PM

Dear Mr. Greathouse,

When you assert that "OEIS is not a good forum for your [my] meta-conjecture" , I expect (given the standards of OEIS auto-stated as "those of a mathematics reference work") to give some reference in your submission policy as an argument for your statement (not just a subjective argument, as you offered). The only reference in your policy eloquent in this case is the 4 admission criterions:

"Sequences that meet all our requirements stand a much better chance of being approved quickly. That is, they are: i. interesting; ii. mathematically well defined; iii. written in correct English, and iv. conform to the OEIS formatting style"

I consider that my meta-conjecture respected those 4 criterions and that the formatting was done accordingly to the indications of the reviewers (Mr. Michalel Marcus operated all the changes he wanted in my text AND it is NOT my fault that the you or the other reviewer weren't pleased on all these many and time-consuming modifications).

It is not correct (it is even un-ethical, implicitly unscientific from my point of view) to "change the rules during the game": as "meta-conjectures" are not stipulated as contraindicated in your OEIS policy (but they may respect all the 4 criterions, as the Goldbach conjecture does too) . If you have decided an anti-meta-conjecture policy starting from my case, you should update you policy with a paragraph dedicated to the "meta-conjecture" issue.

In conclusion, I still consider that this meta-sequence of cut-offs (based on my meta-conjecture verified up to 10^{10}) is discriminated, as it has a value and importance comparable to all the other OEIS sequences and could have reached a publishable form if the 3 reviewers would have agreed between them (as there was a clear opinion-fissure between you, the reviewers, concerning the formulation of the submission!)

Regards,
dr. Andrei Dragoi

Charles Greathouse <charles.greathouse@case.edu>

To Andrei L

CC Joerg Arndt Michel Marcus Today at 11:03 PM

It is unambiguously the case that your submission was, at the time of rejection, not of publishable quality (speaking to admission criterion 4), despite Michel's considerable attempts toward that end. Until that is addressed it is difficult to determine if the sequence is, in fact, interesting: the opacity of a submission can hinder attempts to properly understand it, and the workload prevents our editors from spending endless attention on a single submission.

> It is not correct (it is even un-ethical, implicitly unscientific from my point of view) to "change the rules during the game": as "meta-conjectures" are not stipulated as contraindicated in your OEIS policy

I am in no way opposed to what you call meta-conjectures, and I have no idea why you would think that I would be. To the best of my knowledge there is no, nor has there been, such a policy at this Foundation.

Charles Greathouse
Case Western Reserve University

Andrei L <dr.dragoi@yahoo.com>

To Charles Greathouse Today at 11:40 PM

At the time of rejection, my initial submission became so concise and condensed (as both reviewers asked) that it is not a suprise that it became hard to understand (somehow elliptic). It was not a suprise for me that my submission became hard to follow by you, Let us be honest: the reviewers didn;t agree on just one section, the comments section (the other section had NO objections in their final form). Mr. Arndt wanted a self-consistent definition: I did wjat he asked, BUT the VBGC statement became obiously hard to follow (as I had to explain 3 new concepts in just one statement). Mr. Michael Marcus always offered an alternative: Mr. Arndt was just sententious (just giving the argument that the comments section made his head spin, even if my head and Mr. Marcus head weren't ... "spinning" at all in that moment of review). The comment section had 10 lines at most: it is a mistery for me why those 10 lines were considered so "UNREPAIRABLE" (after losing hours of arranging all other sections: at the limit of respect)! The "interesting"-quality could be simply deducted from one statement: the VBGC statement and its relation to BGC (with BGC being a special case of VBGC).

Concerning the "conjecture issue", let me cite your reviewers:

Michael Marcus: "I've been thinking about this, and I wonder if sequence is too ambitious"

MM: "Putting aside the "conjecture issue", I agree with Joerg..."

Arndt Joerg: "This makes my head spin. Suggest to drop all jargon and give a clear and self-contained definition. If the terms are just conjectural then the sequence is not likely to be accepted for publication"

Michel Marcus: "In case this sequence is rejected because of the "conjecture issue", then you could try the "2, 4, 6, 20, 26, 32, 56, 80, 86, ..." and the "2, 4, 12, 18, 24, 26, 30, 32, 38, 40, .." sequences whose terms are not conjectural, only the fact that they are finite"

I have just proved to you that my conjecture WAS in issue that alarmed you reviewers. Why this alarming? Is there a precedent of another conjecture/meta-conjecture or sequence with conjectural elements that was also rejected?

I think it would have been useful a discussion between you and the other two reviewers: after you have agreed on what exactly is this "conjecture issue" all about, you could formulate a common official opinion. For me, after so many hours of discussion, it remained a mystery why Mr. Marcus and mr. Joerg used such ...alarms!

Thank you for your attention!

dr. Andrei Dragoi

Charles Greathouse <charles.greathouse@case.edu>

To Andrei L

CC Michel Marcus Joerg Arndt Today at 1:33 AM

> I think it would have been useful a discussion between you and the other two reviewers: after you have agreed on what exactly is this "conjecture issue" all about, you could formulate a common official opinion.

Conjectural terms are discouraged in sequences, as explained in our [Style Sheet](#). Although I have no personal view on the inclusion of conjectural terms in this particular submission, I fully support the decision of our editors in this regard.

Charles Greathouse

Case Western Reserve University

http://oeis.org/wiki/Style_Sheet#Sequences_with_conjectured_terms

Sequences with conjectured terms

In principle, the terms shown in an OEIS entry should have been proved to be correct and complete as far as they are shown. For example, in the list of Mersenne primes, A000043, we don't include terms which are known to be in the sequence if it is possible that there are earlier terms which have not yet been found (although such terms are mentioned in the Comments or Extensions sections). What do we do when there are terms in a sequence which are only conjectural?

The most common situation occurs when we know a certain number of terms, but we have only conjectures for the next few terms. In this case we give the terms that are certain in the Data section and the conjectured terms in the Comments or Extensions. This is the rule that we use to handle most cases. Example: A000952, numbers $n \equiv 2 \pmod{4}$ for which a conference matrix of order n exists. It is only a conjecture that the next term is 66.

More than enough terms are known to fill three lines in the Data section, but there are gaps further along in the sequence. In this case we give the known terms (up to the first gap) in a b-file, and all the terms - with gaps, question marks, or ranges for the uncertain terms - in an a-file. Example: A072942, which has both a b-file and an a-file. A046057 is a sequence from group theory which has an a-file although we don't know enough terms for certain to give a b-file.

We only know a few terms for certain, but there is a conjectured generating function (which may or may not be correct). In this case we sometimes give two sequences, one for the known values and one for the the sequence produced by the generating function.

Example: A008368, arising from the face-centered cubic lattice, and A023054, from the proposed generating function.

An extreme example is the sequence of Riesel numbers, A076337, in which only the first term (509203) is known for certain. This violates all our rules, but is included in the OEIS because it is an important problem in number theory, and in the hope that having an entry for it in the OEIS will one day lead to the computation of further terms. The most likely extension is given by A101036. We hope that one day it will be possible to merge the two entries.

Two further extreme examples: If we were to insist on giving only terms which are known for certain, neither sequence would exist. Because of the importance of these problems, we have made exceptions and relaxed the rules.

The Brier numbers, A076335. Seven terms are known, but it is only a conjecture that they are the first seven terms. Even the first term shown is only conjectured to be the smallest.

The minimal number of polygonal pieces needed for dissecting a regular polygon with n sides into an equilateral triangle of the same area: A110000. This is a lovely problem, but only the trivial term $a(3)=1$ is known for certain. The other terms listed are just upper bounds. Again we hope that including this sequence in the OEIS will lead to the computation of further terms.

A000373 is a different kind of example. Here there is an explicit formula for $a(n)$, and we can compute as many terms as we wish, but it is only a conjecture that this is the answer to a question of Yuri Manin about Moufang loops.

Probable primes. We take the point of view that that numbers which at present are known only to be probable primes will eventually be shown to be primes, so we don't regard sequence involving such numbers are conjectural. For example, see A004061, numbers n such that $(5^n - 1)/4$ is prime.

See also the entry in the Index to the OEIS for conjectured sequences.

Andrei L <dr.dragoi@yahoo.com>
To Charles Greathouse Today at 10:09 AM
Dear Mr. Greathouse,

The link I have found on the Style Page is very useful: http://oeis.org/wiki/Style_Sheet#Sequences_with_conjectured_terms
However, I deduct from that link that my meta-conjecture is NOT of such importance as other conjectures (given as examples at that link), for which the rules were "relaxed": you may be right for the moment, although VBGC may prove to be more important than the Binary Goldbach Conjecture in the future, as it may have impact in physics and cryptography, but also in finding a formal proof for BGC.

As for the final rejected form of my initial VBGC submission, I'm convinced that it was far from the "un-repairable" condition (as you and Mr. Arndt have suggested): the comments section had about 10 lines and any reviewer could have tried (or suggested a further) reformulation (merely to agree with each other)!

Thank you for your patience and for the link!
dr. Andrei Dragoi

Charles Greathouse <charles.greathouse@case.edu>

To
Andrei L
Feb 14 at 6:55 PM
I'm rooting for you -- good luck with your proof!

Charles Greathouse
Case Western Reserve University

Andrei L <dr.dragoi@yahoo.com>

To
Charles Greathouse
Feb 14 at 7:07 PM
It's not about a proof I shall offer myself, but a formal proof that may be brought by someone else that may use VBGC as an inspiration source in the future.
I don't know the expression "to be rooting for": what does it mean?
Is there any problem with the other submission of mine ([A282251](#))?

Regards!
dr. Dragoi

Charles Greathouse <charles.greathouse@case.edu>

To
Andrei L
Feb 14 at 11:06 PM
[A282251](#) needs some work but I'll see what can be done. In general flavor it reminds me of the conjectures of Zhi-Wei Sun. It comes down to the slow growth of what you call the 2-(prime-index-prime)s and their basic congruence properties.

Charles Greathouse
Case Western Reserve University

1. OEIS editors are so focused on the form of the entry AND had the tendency to underestimate the potential value of the content (VBGC in this case)
 2. OEIS proved an “allergy” to VBGC, although NOT to the Binary Goldbach Conjecture (BGC), as they accepted many BGC-related sequences
 3. OEIS didn’t recognize that “not accepting conjectured sequences” is not mentioned explicitly in their [publishing policy](#)^[URL2, URL3]
 4. My A281929 entry on VBGC $f(a,b)$ conjectured meta-sequence was rejected despite respecting the [4 admission criteria](#):
 - a. “Sequences that meet all our requirements stand a much better chance of being approved quickly. That is, they are:
 - i. interesting,
 - ii. mathematically well defined,
 - iii. written in correct English, and
 - iv. conform to the OEIS formatting style”
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