Generalized expansions of real numbers

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Abstract

I present here a collection of algorithms that permits the expansion into a finite series or sequence from a real number $x \in \mathbb{R}$, the precision used is 64 decimal digits. The collection of mathematical constants was taken from my own collection and theses sources [1]-[6][9][10]. The goal of this experiment is to find a closed form of the sequence generated by the algorithm. Some new results are presented.

-Introduction

Most of the algorithms will produce a sequence of integers when $x \in \mathbb{R}$ and can be written as a 2 terms recurrence. If x_0 is the initial value then y_n will be the terms of the sequence. If x_0 is rational then most of the algorithms will lead to a finite sequence. But with 64 decimal digits enough terms are computed for detecting simple patterns as with some quadratic irrational like √2 or the Golden Ration. Other numbers like $e,:$ 2.71828… do have a pattern which is easily recognizable but most real numbers do not. The goal of this computation of sequences from real numbers using different algorithms is to discover or find if there could be any patterns at all with other algorithms.

The natural question that comes to mind is: is there any closed formula or generating function for those sequences? For this I can use Gfun package of Maple or with Mathematica as well to answer the question. Gfun was developed starting in 1991 by me and François Bergeron, see [7]. A known example is $sinh(1) = 1.175201193643801456$ ...which leads to: 1, 6, 20, 42, 72, 110, 156, 210, 272, 342, … when expanded into the Engel expansion. That sequence appears to be the coefficients of the series expansion of this rational polynomial:

$$f(x) = \frac{1 + 3x - x^3 + 5x^2}{(1-x)^3} =$$

$$1 + 6x + 20x + 42x + 72x + 110x + 156x + 210x + \cdots$$

So the coefficients are given by the polynomial: $4n^2 + 2n, n > 1$ by using Montmort formula.

Unfortunately this is a lucky example because for tanh(1)= 0.761… with the Engel expansion we get: 2, 2, 22, 50, 70, 29091, 49606, 174594, 260086, … which does not correspond to any known closed formula where the continued fraction expansion of that same numbers is: 0, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, ….

-Algorithms

All algorithms begin with x_0 and the sequence is given by the y_n.

Continued fraction: $y_n = \left[\frac{1}{x_n}\right]$, $x_{n+1} = \left\{\frac{1}{x_{n+1}}\right\}$ will give

$$x = a_{0+}\frac{1}{a_1+\frac{1}{a_2+\frac{1}{a_{3+\cdots}}}}$$

Egyptian fraction: $y_n = \left[\frac{1}{x_n}\right]$, $x_{n+1} = x_n - \left\{\frac{1}{y_n}\right\}$ will give

$$x = \frac{1}{a_0} + \frac{1}{a_1} + \frac{1}{a_2} + \frac{1}{a_3} + \frac{1}{a_4} \ldots$$

Egyptian product or Engel expansion: $y_n = \left[\frac{1}{x_n}\right]$, , $x_{n+1} = \{x_n y_n\}$ will give

$$\mathrm{x} = \frac{1}{\mathrm{a}_0} + \frac{1}{\mathrm{a}_0\mathrm{a}_1} + \frac{1}{\mathrm{a}_0\mathrm{a}_1\mathrm{a}_2} + \frac{1}{\mathrm{a}_0\mathrm{a}_1\mathrm{a}_2\mathrm{a}_3} + \frac{1}{\mathrm{a}_0\mathrm{a}_1\mathrm{a}_2\mathrm{a}_3\mathrm{a}_4} \ldots$$

Base k (integer) algorithm: $y_n = [kx_n]$, $x_{n+1} = \{kx_n\}$

Infinite product ($x > 1$): $y_n = 1 + \left[\frac{1}{x_n - 1}\right]$, $x_{n+1} = x_n \frac{y_n}{y_n + 1}$ will give

$$\mathrm{x} = \left(1 + \frac{1}{\mathrm{a}_0}\right) \cdot \left(1 + \frac{1}{\mathrm{a}_1}\right) \cdot \left(1 + \frac{1}{\mathrm{a}_2}\right) \cdot \left(1 + \frac{1}{\mathrm{a}_3}\right) \cdot \left(1 + \frac{1}{\mathrm{a}_4}\right) \ldots$$

Infinite product ($x < 1$): $y_n = 1 + \left[\frac{1}{|x_n - 1|}\right]$, $x_{n+1} = x_n \frac{y_n}{y_n - 1}$ will give

$$\mathrm{x} = \left(1 - \frac{1}{\mathrm{a}_0}\right) \cdot \left(1 - \frac{1}{\mathrm{a}_1}\right) \cdot \left(1 - \frac{1}{\mathrm{a}_2}\right) \cdot \left(1 - \frac{1}{\mathrm{a}_3}\right) \cdot \left(1 - \frac{1}{\mathrm{a}_4}\right) \ldots$$

Alternated Egyptian product or Pierce expansion: $y_n = \left[\frac{1}{x_n}\right]$, $x_{n+1} = 1 - \{x_n y_n\}$ will give

$$\mathrm{x} = \frac{1}{\mathrm{a}_0} - \frac{1}{\mathrm{a}_0\mathrm{a}_1} + \frac{1}{\mathrm{a}_0\mathrm{a}_1\mathrm{a}_2} - \frac{1}{\mathrm{a}_0\mathrm{a}_1\mathrm{a}_2\mathrm{a}_3} + \frac{1}{\mathrm{a}_0\mathrm{a}_1\mathrm{a}_2\mathrm{a}_3\mathrm{a}_4} \ldots$$

Factorial base: $y_n = [n!\, x(n)]$, $x_{n+1} = x_n - \frac{y_n}{n!}$ will give

$$x = \frac{a_0}{0!} + \frac{a_1}{1!} + \frac{a_2}{2!} + \frac{a_3}{3!} + \frac{a_4}{4!} \ldots$$

Prime-Egyptian fraction: $y_n = 1 + \left\lfloor \frac{1}{x_n} \right\rfloor, y_n = smallest\ prime,\ x_{n+1} = x_n - \frac{1}{y_n}$ will give

$$x = \frac{1}{p_0} + \frac{1}{p_1} + \frac{1}{p_2} + \frac{1}{p_3} + \frac{1}{p_4} \ldots$$

Where the p_i are the smallest possible primes.

Results

Some expansions are surprising like with the number 1/24 in base $(n^3 e^{2\pi n} - 1)$ gives : [0, 22, 18, 22, 18, 22, 18, 22, 18, 22, 18, 22, 18, 22, 18, 22, 18, 22, 18, 22, 18,…] which suggests identities like this one.

$$1 = 24 \sum_{n=1}^{\infty} \frac{n^3}{e^{\pi n} - 1} - 264 \sum_{n=1}^{\infty} \frac{n^3}{e^{2\pi n} - 1}$$

These identities were investigated in 2009, 2006 and 1998, a summary is given here:

http://pictor.math.uqam.ca/~plouffe/inspired3.pdf

http://pictor.math.uqam.ca/~plouffe/inspired2.pdf

http://pictor.math.uqam.ca/~plouffe/identities.html

The complete listing of 188 known constants can be found here: http://pictor.math.uqam.ca/~plouffe/gendev/

The naming convention used here reflects the fact that these constants are now included in my new database of 2.853 billion constants. One example is given here.

Example with $\zeta(5)$

Value x = :
1.03692775514336992633136548645703416805708091950191281197419267 8

Description : Zeta(5)

Prime-egyptian fraction expansion of x :
[29,409,114316837,751567899523187,69620153350912993587036666673]

Prime-Engel expansion of x :
[1,29,17,5,41,11,11,2,17,11,11,5,3,3,3,3,11,5,3,3,3,3,5,3,11,3,3,3,17,7
,3,53,29,13,13,11,3,3,37,11,5,2,5,5,11,37,7,7,3,37,19,631,89,179,29,557
,127,37,109]

Prime-Pierce expansion of x :
[1,29,2,11,3,2,2,2,2,2,5,2,3,2,2,11,3,2,2,7,2,3,2,7,2,2,2,11,2,5,2,2,3,
2,5,2,2,2,37,2,11,2,2,5,2,2,2,11,2,3,2,2,5,3,2,2,17,2,23,2,3,2,5,2,2,2,
5,2,3,2,3,2,3,2,5,2,2,2,5,2,2,7,2,2,2,3,2,11,2,2,2,5,2,5,3,2,2,2,3,2,2,
5,2,2,5,2,2,11,3,2,2,2,2,2,2,2,2,2,5,2,2,2,2,2,2,3,2,2,11,2]

Prime-egyptian fraction expansion of 1/x :
[2,3,11,29,179,13241,23590181,9365538893363,1141751741074428913242213 7]

Prime-Engel expansion of 1/x :
[0,2,2,2,2,3,5,3,3,17,5,2,37,7,11,3,3,5,3,17,5,3,233,379,293,59,11,7,7,
11,3,29,79,41,29,7,3,7,11,5,5,3,5,3,5,7,5,2,11,13,37,53,31,17,47,13,23,
7,3,17,5,3,11]

Prime-Pierce expansion of 1/x :
[0,2,17,2,3,2,2,2,11,2,2,2,2,2,7,2,2,2,2,2,2,3,2,2,11,2,5,2,2,29,2,5,3,
2,2,3,2,3,2,2,2,2,347,2,47,2,11,2,2,5,2,5,2,2,7,2,2,2,2,5,3,2,7,2,11,2,
5,2,5,2,2,3,2,7,2,5,2,7,2,2,2,2,2,5,2,2,2,2,11,2,11,2,2,5,2,3,2,5,2,2,1
1,2,2,5,2,2,2,2,2,2,2,2,2,2,13,2,11,3,2,2,5,2,2,2,2]

Prime-egyptian fraction expansion of 1/(1-frac(x)) :
[29,263,17047,1553080051,468776062777928639,330676514139341053061853219
0714163]

Prime-Engel expansion of 1/(1-frac(x)) :
[1,29,11,5,7,11,7,5,3,13,11,11,5,557,479,83,71,53,11,11,7,11,2,17,5,2,1
7,179,59,43,59,41,17,5,3,3,5,3,3,31,59,19,19,17,7,61,47,13,7,83,283]

Prime-Pierce expansion of 1/(1-frac(x)) :
[1,29,2,5,2,5,2,3,2,3,2,7,2,5,3,2,2,2,2,5,3,2,2,2,2,2,3,2,5,2,2,3,2,3,2
,5,2,2,2,11,2,5,2,2,3,2,5,3,2,2,2,3,2,2,2,2,11,2,3,2,3,2,5,2,2,53,2,11,
3,2,2,2,3,2,2,2,11,3,2,2,2,2,2,2,2,5,2,5,3,2,7,2,5,2,2,2,2,2,5,2,2,2,11
,2,2,3,2,2,2,2,5,2,53,2,7,2,11,2,2,2,2,2,3,2,2,2,3,2,2,7,2,2,2]

Prime-egyptian fraction expansion of 1-frac(x) :
[2,3,11,29,233,18119,38735467,132575082674603,8766084164571227946736259
77]

Prime-Engel expansion of 1-frac(x) :
[0,2,2,2,2,3,5,11,2,47,127,23,7,3,11,3,7,59,89,79,29,5,13,7,11,11,13,11
,13,29,5,5,3,3,19,11,29,19,311,149,67,37,17,11,5,2,17,11,223,23,13,29,7
,7,37]

Prime-Pierce expansion of 1-frac(x) :
[0,2,17,2,2,2,23,2,29,2,5,3,2,5,2,2,2,2,17,2,3,2,2,2,3,2,2,3,2,11,2,2,2
,5,2,5,2,2,2,2,7,2,7,2,2,2,3,2,2,5,2,3,2,2,13,2,5,2,2,2,2,5,3,2,2,2,3,2
,5,3,2,2,2,3,2,3,2,2,2,7,2,3,2,2,2,2,3,2,2,2,37,2,29,2,11,3,2,2,3,2,2,2
,2,2,2,2,3,2,7,2,2,2,3,2,3,2,7,2,5,2,2,2,2,2,3,2,3,2,2,2,2,2,2,5]

Continued fraction of x :
[1,27,12,1,1,15,1,5,1,2,19,1,1,32,1,13,1,1,1,3,1,3,2,16,1,12,4,1,5,1,1,1,1,1,2,2,6,1,8,8,6,2,3,2,2,1,30,1,17,116,1,7,1,1,1,1,1,1,2,2,12,1]

Egyptian fraction of x :
[1,28,825,741721,889339569751,23765848665392407713068 52,615441633452988255552896106690135176486434501889 5]

Engel expansion of x :
[1,28,30,52,231,277,523,2278,22749,48854,371305,1447522,1726931,1947729,3657998,6852032]

Engel expansion of 1/x :
[0,2,2,2,2,3,4,7,8,11,52,65,476,648,912,923,1257,1280,2532,25008,65421,69325,143044,1378319,7319579]

Egyptian fraction of 1/x :
[0,2,3,8,166,33433,6993814291,172874227392134456956,9945185750018795908867542013894205086747 47]

Egyptian fraction of 1-frac(x) :
[0,2,3,8,212,45599,11664240656,47932007856305467468886,1277843545342880449502057409477363606508070 6099]

Engel expansion of 1/(1-frac(x)) :
[1,27,29,44,59,63,109,265,519,1010,10268,42272,99420,216617,1558561,11696451,26658373,48867590]

Engel expansion of 1-frac(x) :
[0,2,2,2,2,3,5,8,11,12,34,91,217,374,1607,7574,12090,15360,50886,100046,1026738,3290030,6805570,7564327]

Egyptian fraction of 1/(1-frac(x)) :
[1,27,766,846085,754028007008,11620697678545813171843 67,172090125051925140685492886523008368856815819 1814]

Infinite product of x :
[28,854,1504461,9140342271316,898011312442960977010385 84,3030135053297194383582221569931648259717923380 6905195]

Infinite product of 1-frac(x) :
[0,28,795,1812251,5081534642389,76162805243343279758282599,260245508022780990219415535044990078229765307191805 05]

Infinite product of 1/(1-frac(x)) :
[27,794,1812250,5081534642388,76162805243343279758282598,260245508014653663286145103314746986135997186491434 16]

Pierce expansion of x :
[1,27,338,371,1361,1846,31127,194726,1143811,2634682,7335358,12548979,69987283,1764343077]

Alternated egyptian fraction of x :
[1,27,9150,129469627,23439855214708089,19737390614451443937620998955228 13]

Pierce expansion of 1-frac(x) :
[0,1,27,338,371,1361,1846,31127,194726,1143811,2634682,7335358,12548979,69987283,1764343077]

Alternated egyptian fraction of 1-frac(x) :
[0,1,27,9150,129469627,23439855214708089,19737390614451443937620998955228 13]

Pierce expansion of 1/(1-frac(x)) :
[1,26,326,821,37837,314009,613263,2405283,5151049,5600664,10861145,214966581,72701915]

Alternated egyptian fraction of 1/(1-frac(x)) :
[1,26,8486,214131767,716034013444251529,7855018023086672787032474020062604986]

Pierce expansion of 1/x :
[0,1,28,351,820,974,1160,37662,143779,11650196,1683591928,2665805734,29267923717,294459157844]

Alternated egyptian fraction of 1/x :
[0,1,28,9839,98023754,30455069554504458,10726791296564633113561929922557 28]

Factorial base of x :
[1,0,0,0,0,4,2,4,0,8,3,4,9,10,5,3,12,4,1,10,0,6,19,0,19,10,21,19,16,3,27,24,12,12,14,7,33,27,15,28,15,7,15,7,21,13,29,16,44]

Factorial base of 1/x :
[0,0,1,2,3,0,4,2,4,0,8,8,7,1,1,8,0,9,17,6,18,12,4,11,7,7,16,13,19,27,27,10,30,10,33,31,33,27,37,18,23,26,0,38,20,6,24,35,44]

Factorial base of 1-frac(x) :
[0,0,1,2,3,0,3,2,7,0,6,6,2,2,8,11,3,12,16,8,19,14,2,22,4,14,4,7,11,25,2,6,19,20,19,27,2,9,22,10,24,33,26,35,22,31,16,30,3]

Factorial base of 1/(1-frac(x)) :
[1,0,0,0,0,4,3,4,2,0,1,6,10,7,11,0,5,9,9,9,15,0,6,11,8,8,13,19,8,8,7,19,20,6,24,23,28,36,20,33,23,10,17,4,12,29,0,14,20]

Base 2 and prime expansion of x :
[0,0,0,2,0,0,1,0,1,1,1,1,2,0,0,0,2,0,0,1,1,0,0,0,0,1,0,1,1,0,1,0,0,0,1,1,1,1,0,0,0,1,0,1,1,1,2,0,0,0,0,0,1,1,1,0,0,1,1,0,1,0,2,0,0,0,1,0,1,1,0,1,1,0,1,0,0,0,0,0,0,0,0,0,1,0,0,0,0,1,1,0,1,1,1,1,0,1,1,0,0,1,1,0,1,1,0,0,1,1,1,0,1,1,1,0,0,1,1,1,0,0,1,0,1,1,0,0,1,0,0,0,1,1,1,0,0,0,0,0,0,0,1,0,0,0,0,1,1,1,0,1,0,0,1,1,0,1,0,1,0,1,1,0,0,0,1,1,1,0,1,0,0,1,0,0,0,1,1,1,1,1,0,1,1,0,0,1,0,1,1,0,0,1,1,1,0,1,0,0,1,1,1]

Base 10 and prime expansion of x :
[0,1,1,11,2,6,3,3,8,8,6,8,4,4,9,9,6,10,3,3,7,9,0,6,5,9,8,7,9,10,0,2,9,7,8,0,2,2,1,2,8,7,3,2,3,6,6,0,8,9,9,2,2,8,9,9,7,2,6]

Base 2 and prime expansion of 1/x :
[1,2,2,1,2,0,1,2,0,1,0,1,1,1,1,1,2,0,0,0,0,1,1,1,0,1,1,0,0,1,1,0,1,0,2,0,0,0,0,0,1,1,0,1,0,0,0,0,1,1,0,0,1,1,0,1,0,0,1,1,1,1,0,1,0,1,0,1,0,0,0,1,0,0,0,1,0,0,0,0,0,1,1,0,1,1,1,0,1,0,0,0,0,0,1,1,0,0,0,1,1,0,0,0,0,1,1,1,0,0,0,1,1,0,0,0,1,1,1,0,0,0,1,1,0,1,1,1,2,0,0,0,0,0,0

,1,0,1,0,1,0,0,1,0,1,1,0,1,1,0,0,1,0,0,0,0,1,1,0,0,0,1,1,0,1,1,1,1,1,1,
0,1,1,0,0,1,0,1,1,1,0,1,1,1,1,0,1,0,0,0,1,0,0,1,1,0,1,0,0,1]

Base 10 and prime expansion of 1/x :
[1,13,15,7,5,11,1,6,1,5,0,8,7,2,10,9,10,2,7,5,3,3,4,1,9,1,2,2,7,9,1,1,8
,8,3,5,2,3,2,3,5,8,4,9,1,2,0,6,5,2,9,4,1,9,1,0,0,1,3]

Base 2 and prime expansion of 1/(1-frac(x)) :
[0,0,0,2,0,1,0,0,1,0,1,1,1,1,1,1,1,0,1,1,1,1,1,1,1,0,0,1,0,0,1,1,1,0,1,
0,1,1,1,0,1,0,1,1,0,1,0,0,1,0,1,0,0,1,0,1,1,0,0,1,1,0,0,1,0,0,2,0,0,0,0
,1,1,0,1,0,1,0,0,1,1,0,1,1,1,1,1,0,1,1,0,1,2,0,0,0,0,0,1,0,1,0,0,1,0,1,
0,1,1,0,1,1,0,0,1,0,1,1,1,1,1,1,0,0,0,0,1,0,1,1,0,1,0,0,0,1,0,0,1,0,0,0,1
,0,1,0,1,1,1,1,0,0,1,1,0,0,0,0,1,0,0,0,1,1,1,1,1,1,1,1,1,1,1,1,0,1,1,0,
0,1,1,0,0,1,0,0,0,0,1,1,0,1,1,0,0,0,1,1,0,1,0,1,1,1,0,1,0,1]

Base 10 and prime expansion of 1/(1-frac(x)) :
[0,1,2,7,1,1,8,7,2,6,0,5,3,4,4,3,5,9,2,7,6,9,0,1,5,8,3,5,5,1,6,8,1,0,4,
8,9,0,6,9,9,5,9,3,0,7,4,3,3,3,5,1,9,0,8,3,6,0,5]

Base 2 and prime expansion of 1-frac(x) :
[1,2,2,1,2,0,0,1,0,1,1,0,1,0,1,1,1,0,0,0,0,1,1,0,0,1,0,0,1,0,0,1,0,0,0,
0,0,1,0,1,1,0,0,0,0,0,1,0,1,1,1,1,1,0,0,0,1,0,1,1,0,1,0,1,1,1,1,0,0,0,1
,1,0,0,0,2,0,0,0,0,0,0,1,1,1,1,0,1,0,0,1,0,0,0,0,0,1,1,1,1,0,0,0,1,0,1,
0,0,1,0,0,1,0,1,1,0,0,1,1,0,1,0,1,1,0,0,0,0,0,1,1,0,1,1,0,0,0,1,1,0,1,1
,0,1,1,0,1,1,1,0,1,1,1,1,1,0,1,1,0,0,1,0,1,1,1,0,0,0,0,1,1,1,0,0,1,1,0,
0,1,0,1,0,0,0,0,1,1,0,0,1,0,1,1,1,1,1,0,1,0,0,1,1,0,1,0,0,1]

Base 10 and prime expansion of 1-frac(x) :
[1,13,14,12,2,8,4,10,5,1,3,3,3,9,2,11,0,5,10,6,9,9,3,7,0,1,5,9,2,7,6,3,
1,8,10,3,2,4,2,4,1,9,6,2,2,7,7,8,8,7,1,4,5,5,3,2,5,3,5]

Binary expansion of x :
[2,0,0,0,1,0,0,1,0,1,1,1,0,1,0,0,0,0,0,1,1,0,0,0,1,1,1,0,1,1,0,0,1,0,1,
0,0,1,1,1,1,1,0,0,1,1,0,0,1,1,0,1,1,0,1,1,0,1,1,1,1,0,1,0,0,0,1,0,0,0,1
,1,0,0,0,0,0,1,0,0,1,1,1,0,0,0,1,1,1,1,0,1,0,0,0,1,1,0,0,1,1,0,0,1,1,1,
1,1,1,1,1,1,0,1,0,0,0,1,1,0,0,0,0,1,0,0,1,1,0,0,0,0,1,0,1,1,1,1,1,1,1,1
,1,0,1,0,0,0,1,0,0,0,1,0,0,0,0,1,0,0,1,1,1,0,1,1,0,0,1,0,0,1,1,1,1,1,1,
0,0,1,0,1,1,1,0,1,1,0,1,0,1,0,0,0,1,1,0,1,0,0,1,1,1,1,1,1,1,0,0,1,0,0]

Binary expansion of 1/x :
[1,1,1,1,0,1,1,0,1,1,1,0,0,0,1,0,0,0,0,1,0,1,1,0,1,0,1,1,0,1,1,1,1,1,0,
1,0,0,0,1,1,1,1,1,1,0,0,1,0,0,0,1,0,0,0,0,1,0,1,0,1,0,0,1,1,1,1,0,0,0,0,0
,0,1,1,1,0,0,1,1,0,1,1,1,1,1,0,1,1,0,0,1,1,0,0,0,1,0,0,0,0,1,1,0,1,1,0,0,
1,1,1,0,1,0,0,1,0,1,0,1,1,1,1,1,0,1,1,0,1,0,1,0,0,1,1,1,1,1,1,1,1,0,0,0,1,1
,1,0,0,1,1,0,1,1,1,0,1,1,1,0,0,0,1,0,1,1,1,0,0,0,1,1,1,1,1,1,0,1,0,0,1,1,
1,1,0,0,1,1,0,1,0,0,0,0,1,0,1,1,0,0,0,0,1,1,1,0,0,0,1,0,1,0,0,0,0,0,0,1]

Binary expansion of 1-frac(x) :
[1,1,1,1,0,1,1,0,1,0,0,0,1,0,1,1,1,1,1,1,0,0,1,1,1,0,0,0,1,0,0,1,1,0,1,0,
1,1,0,0,0,0,0,0,1,1,0,0,1,1,0,0,1,0,0,1,0,0,1,0,0,0,0,1,0,1,1,1,0,1,1,1,0
,0,1,1,1,1,1,1,0,1,1,0,0,0,1,1,1,1,0,0,0,0,1,0,1,1,1,0,0,1,1,0,0,1,1,0,0,
0,0,0,0,0,0,0,1,0,1,1,1,0,0,1,1,1,1,0,1,1,0,0,1,1,1,1,0,1,0,0,0,0,0,0,0,0
,0,1,0,1,1,1,0,1,1,1,0,1,1,1,1,0,1,1,0,0,0,1,0,0,1,1,0,1,1,0,0,0,0,0,0,0,
1,1,0,1,0,0,0,1,0,0,1,0,1,0,1,1,1,0,0,1,0,1,1,0,0,0,0,0,0,0,1,1,0,1,1]

Binary expansion of 1/(1-frac(x)) :
[2,0,0,0,1,0,0,1,1,1,0,1,0,0,0,0,1,1,1,0,0,1,0,0,1,0,0,1,0,0,1,0,0,0,0,
0,0,1,0,0,1,0,0,0,1,1,1,1,0,1,1,1,1,1,1,0,1,1,1,1,1,1,0,1,1,1,1,1,1,1,0,0

,0,1,1,1,0,0,1,0,1,0,0,1,1,1,1,1,1,0,1,1,1,1,0,0,0,1,1,0,1,1,0,0,0,1,1,
0,1,1,1,1,0,1,0,0,1,0,0,1,1,0,0,1,0,1,0,0,0,0,1,0,0,0,1,0,1,0,1,0,1,0,1
,1,0,0,1,0,1,0,0,1,1,1,0,0,1,0,1,0,0,0,0,0,1,0,1,1,0,1,0,0,1,1,0,0,1,0,
0,1,0,1,0,0,1,0,0,1,0,0,0,0,1,0,1,1,0,0,1,1,0,0,0,1,1,0,1,1,1,1,0,1,0]

Fibonacci representation of x :
[1,9,12,18,20,23,30,32,35,37,39,41,45,47,49,52,55,57,62,69,73,75,80,90,
93,96,98,103,107,111,119,125,129,133,141,145,147,153,155,159,164,168,17
4,181,191,196,199,203,205,208,211,213,215,218,220,223,226,228,231,234,2
36,238,240,242,244,247,249,254,256,262,267,273,276,281,283,289,292,295,
301,303,305,307]

Fibonacci representation of 1/x :
[0,3,4,6,13,15,21,24,26,30,33,35,37,39,42,46,53,60,70,74,77,84,86,89,91
,94,99,101,103,108,110,115,119,123,125,130,133,135,138,144,147,149,151,
153,161,163,165,170,172,174,179,182,186,188,190,192,194,198,200,203,205
,216,220,224,226,232,239,243,246,251,254,258,265,272,278,281,283,285,28
7,289,292,295,297,299,301,303,306]

Lucas representation of x :
[1,7,13,16,20,25,31,34,37,39,41,46,53,58,60,63,71,80,83,85,87,89,94,97,
100,102,104,106,110,112,115,117,119,121,123,127,134,138,142,147,149,152
,156,162,164,166,168,176,179,183,189,193,195,197,199,203,206,212,215,21
9,221,224,227,230,232,235,239,243,250,257,259,261,263,276,279,282,286,2
88,290,292,294,301,303]

Lucas representation of 1/x :
[0,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,2
7,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,
51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74
,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,9
8,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,11
6,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,1
34,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,
152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169
,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,18
7,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,2
05,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,
223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240
,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,25
8,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,2
76,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,
294,295,296,297,298,299,300,301,302,303,304,305,306,307]

Fibonacci representation of 1-frac(x) :
[0,3,4,6,13,18,22,28,32,44,54,56,58,60,66,68,70,73,77,80,82,84,88,92,97
,99,102,104,111,113,120,128,130,132,136,139,141,145,147,150,155,161,163
,165,167,171,173,179,182,184,186,189,194,198,201,204,210,213,218,221,22
8,233,235,237,242,245,248,250,254,258,269,276,278,280,284,287,291,299,3
04,307]

Fibonacci representation of 1/(1-frac(x)) :
[1,9,12,15,19,21,25,28,31,33,35,43,45,48,51,54,56,59,61,63,66,70,72,75,
77,79,83,87,89,93,95,97,100,105,107,109,114,119,122,128,130,132,135,137
,139,142,144,148,150,152,158,160,163,165,167,175,177,183,187,190,200,20
3,208,210,212,214,218,220,227,229,240,242,244,247,251,253,255,259,262,2
65,271,276,281,286,290,297,300,303,306]

Lucas representation of 1-frac(x) :
[0,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,305,306,307]

Lucas representation of 1/1-frac(x)) :
[1,7,12,15,23,25,30,34,36,41,46,49,54,57,63,65,67,70,72,74,76,82,84,86,94,96,102,104,106,110,113,115,120,124,129,140,142,147,150,152,157,159,163,165,167,170,177,181,185,190,194,196,201,203,205,208,211,215,217,219,224,228,232,236,239,241,245,249,256,258,260,263,265,267,269,273,276,280,283,286,290,293,296,299,301,304]

Expansion in base Pi of x :
[3,0,2,1,2,0,2,0,0,2,2,2,2,2,2,3,0,1,0,1,0,1,0,1,2,1,2,2,1,2,1,0,1,2,3,0,1,0,1,1,1,1,3,0,1,0,2,0,1,1,0,2,1,1,0,3,0,1,0,1,1,2,1,1,2,1,0,1,2,1,2,0,2,0,0,0,2,1,2,0,0,1,0,3,0,0,0,2,1,0,2,1,2,2,0,2,0,0,2,1,1,0,0,2,2,0,0,2,1,0,0,1,2,1,1,1,1,2,2,0,2,2,2,1,0,0,0,0]

Expansion in base Pi of 1/x :
[3,0,0,0,2,2,2,1,2,0,2,0,1,0,0,1,1,2,2,2,1,1,1,1,2,0,2,1,3,0,0,2,0,0,2,0,2,0,0,2,2,1,1,1,1,2,1,2,2,1,2,1,0,2,0,0,3,0,0,1,2,0,0,1,2,0,0,2,2,2,0,0,2,1,1,3,0,1,0,1,1,2,2,2,1,0,1,1,1,0,2,1,0,2,3,0,1,0,1,1,0,1,2,2,1,0,0,3,0,0,0,0,1,2,0,0,1,1,1,0,0,1,1,0,0,0,1,1]

Expansion of x in base exp(Pi) :
[23,23,0,16,4,7,22,15,3,19,8,0,12,12,3,11,17,12,8,21,22,13,20,13,1,1,20,21,14,8,21,11,3,16,4,7,8,22,10,7,2,20,0,5,22,0]

Expansion in base exp(Pi) of 1/x :
[22,7,7,12,15,5,5,22,19,17,16,22,8,9,14,7,18,14,1,18,3,22,20,12,10,19,11,6,13,18,6,17,8,13,1,15,22,15,16,12,12,11,6,13,4,19]

Expansion in base exp(Pi/5) of x :
[1,1,1,0,1,1,0,0,0,0,0,1,0,1,0,1,0,0,0,0,0,0,0,1,1,0,1,0,0,0,0,0,1,1,0,1,0,0,0,0,1,0,1,0,1,0,0,1,0,0,0,1,1,0,1,0,0,0,1,1,0,1,0,1,1,0,1,1,0,0,0,1,0,1,1,1,0,0,0,1,0,0,1,1,0,1,0,1,1,0,0,0,1,0,1,0,0,0,0,1,0,0,1,1,0,0,1,0,0,0,0,1,0,0,0,1,0,0,0,1,0,0,0,0,1,0,0,1,0,1,1,0,1,1,0,0,1,1,0,1,0,1,0,1,0,0,1,0,1,1,1,0,0,0,1,1,0,1,1,0,1,1,0,0,1,0,0,1,0,0,0,1,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,1,1,0,0,0,1,0,0,0,1,0,1,1,1,0,0,0,1,0,0,1,0]

Expansion in base exp(Pi/5) of 1/x :
[1,1,0,1,1,0,1,1,0,1,1,0,1,0,0,1,0,1,1,1,0,0,0,0,0,1,0,1,0,0,0,1,1,1,0,0,0,1,1,0,1,1,0,1,1,0,1,1,1,0,0,0,0,0,1,1,0,1,1,0,0,1,1,0,0,1,0,0,1,1,0,1,1,0,0,0,1,1,0,1,1,0,1,0,0,1,0,0,0,0,1,0,0,1,1,1,0,0,1,0,1,0,0,0,1,1,0,1,1,0,1,0,0,1,0,0,0,1,0,0,0,0,1,

1,1,0,0,0,1,0,1,0,1,0,1,0,1,1,1,0,0,0,1,0,0,0,0,1,1,0,1,1,0,0,0,1,0,0,1
,1,0,0,0,0,0,0,0,0,1,0,0,1,0,1,0,0,1,0,1,0,1,1,0,1,0,0,1,1,0,0,0,0,0,0,
0,0,0,0,0,1,0,0,0,0,0,1,0,1,0,0,0,0,0,1,0,1,0,1,0,1,1,0,1,0,0,0,0,0,1,0
,0,1,0,1,0,1,1,0,1,1,0,1,0,0,0,1,1,0,0,0,0]

Expansion in base exp(2*Pi/5) of x :
[3,2,0,3,0,2,2,1,0,0,1,0,1,1,2,0,0,3,1,0,0,0,1,1,2,1,0,2,2,3,0,0,3,1,0,
1,0,2,2,0,3,1,1,2,1,2,1,0,0,2,1,1,3,0,2,2,2,1,0,0,0,3,0,1,0,1,2,2,3,1,0
,0,1,2,0,1,0,2,0,1,1,2,1,0,0,1,1,1,1,0,1,2,2,3,1,2,2,3,0,1,1,0,3,1,0,1,
1,2,3,1,2,0,0,0,2,1,2]

Expansion in base exp(2*Pi/5) of 1/x :
[3,1,1,0,3,1,2,1,1,2,3,1,1,1,1,1,0,1,0,1,0,1,1,2,2,3,1,2,0,2,2,0,0,3,0,
0,2,0,1,1,3,1,0,3,0,0,2,2,0,2,2,0,1,0,2,1,0,2,0,0,1,0,2,0,1,0,3,0,3,0,1
,2,0,3,1,2,0,3,1,2,2,1,1,3,1,1,0,0,3,0,1,2,2,0,1,1,3,1,1,3,1,2,2,2,3,0,
0,0,1,2,2,0,2,2,0,2,2]

Expansion in base e or exp(1) of x :
[2,2,0,1,1,2,0,1,1,0,1,1,2,1,0,1,0,2,0,1,0,1,2,0,0,2,1,1,0,1,2,1,1,0,0,
2,1,0,2,0,1,2,1,2,0,1,2,1,0,0,0,2,0,2,0,2,1,1,1,1,0,0,2,0,0,0,1,1,0,2,0
,0,0,1,2,1,2,1,0,2,1,0,2,0,0,1,1,0,0,2,1,1,0,1,0,2,1,0,1,1,1,2,1,2,0,1,
2,0,2,1,2,0,2,0,0,0,0,2,0,1,1,1,1,0,0,0,2,1,0,2,1,2,1,0,1,2,1,2,0,1,2,0
,1,0,1,1,2]

Expansion in base e or exp(1) of 1/x :
[2,1,1,2,1,0,0,0,1,0,0,2,0,1,1,0,1,0,0,2,0,1,2,1,0,0,1,0,0,0,0,1,0,1,0,
1,1,0,0,1,2,0,1,2,0,0,2,0,0,2,1,1,2,0,0,1,1,0,1,2,1,2,0,0,2,0,1,1,0,1,2
,0,1,2,1,2,0,1,0,0,2,1,1,1,0,1,1,1,0,2,1,0,2,0,1,0,2,1,2,1,0,0,2,0,1,0,
2,0,2,0,0,2,1,1,0,2,1,0,0,1,1,2,1,2,0,1,1,1,0,2,1,0,2,1,0,2,0,1,0,2,1,1
,1,2,0,0,2]

Expansion in base 1+sqrt(2) of x :
[2,1,0,1,0,1,1,0,0,2,0,1,2,0,2,0,0,1,1,1,0,1,0,0,0,1,0,1,0,0,0,1,1,1,0,
1,1,2,0,1,1,2,0,1,0,0,1,1,0,1,2,0,1,2,0,0,2,0,0,1,1,0,0,0,2,0,1,1,1,0,0
,1,0,1,2,0,1,0,2,0,0,1,0,1,1,2,0,1,2,0,2,0,2,0,1,1,0,0,0,1,0,1,1,1,2,0,
1,1,1,2,0,0,1,0,0,0,0,0,1,1,0,0,2,0,0,0,0,1,1,1,0,0,1,0,0,1,0,1,0,1,0,2
,0,0,0,1,0,0,1,2,0,0,0,0,1,1,0,0,0,0,2,0,1,0,2,0,2]

Expansion in base 1+sqrt(2) of 1/x :
[2,0,1,2,0,1,0,1,0,0,1,1,1,0,1,1,1,1,0,2,0,2,0,1,0,0,0,2,0,1,1,0,1,0,0,
1,1,1,0,0,0,0,0,0,1,2,0,1,1,1,0,0,0,1,0,0,0,0,1,2,0,0,0,0,0,0,2,0,0,0,0,2
,0,2,0,1,0,2,0,0,1,1,2,0,0,2,0,1,2,0,1,0,0,0,0,0,1,0,0,1,0,0,2,0,1,1,1,
0,0,2,0,1,0,1,2,0,2,0,0,1,0,1,1,0,0,2,0,1,0,2,0,1,0,2,0,2,0,1,0,0,1,2,0
,0,0,1,1,0,2,0,1,0,0,0,2,0,0,0,0,0,1,0,1,0,0,0,0,0]

Expansion in base Pi of 1-frac(x) :
[3,0,0,0,2,1,1,2,0,2,1,0,0,2,1,1,0,2,0,0,0,2,0,0,2,1,1,0,2,2,0,2,0,2,2,
1,0,2,2,0,2,2,3,0,0,1,2,0,1,2,1,1,0,2,1,0,2,0,2,0,0,1,1,0,2,1,1,2,2,0,1
,0,0,2,1,2,2,2,2,1,2,1,1,0,2,1,1,0,0,2,1,2,1,0,1,2,2,3,0,1,0,1,2,1,2,0,
0,1,1,0,1,2,1,1,1,0,1,2,2,1,2,2,1,1,1,2,0,2]

Expansion in base Pi of 1/(1-frac(x)) :
[3,0,2,1,2,2,0,0,0,2,2,0,2,2,2,0,2,2,1,0,0,1,1,2,1,1,0,2,2,1,2,0,2,3,0,
1,0,1,1,1,0,0,3,0,0,1,1,0,1,1,2,1,1,2,2,1,2,2,0,2,1,2,1,1,2,2,2,0,3,0,0
,0,1,1,1,2,0,1,0,1,3,0,1,0,1,2,0,2,1,0,1,2,0,0,1,2,0,0,1,0,0,0,1,1,2,0,
2,2,0,1,2,0,1,1,1,3,0,0,1,0,0,0,2,1,2,1,0,2]

Expansion of 1-frac(x) in base exp(Pi) :
[22,6,14,9,1,8,16,2,15,6,5,19,11,4,20,22,20,22,12,9,1,16,21,14,19,10,2,
7,7,7,10,17,16,8,10,19,1,8,18,22,19,3,15,5,13,6]

Expansion in base exp(Pi) of 1/(1-frac(x)) :
[24,0,14,22,20,20,16,7,4,9,15,10,8,8,15,0,0,17,21,21,21,3,16,17,12,19,0
,17,8,20,3,17,10,14,4,15,9,0,4,8,21,14,7,5,2,19]

Expansion in base exp(Pi/5) of 1-frac(x) :
[1,1,0,1,1,0,1,1,0,1,0,0,0,0,0,0,1,0,1,0,0,0,1,0,0,1,0,1,0,0,1,1,0,1,1,
1,0,0,0,0,0,1,0,0,1,0,1,0,1,1,0,1,0,0,1,0,0,0,0,0,1,1,1,0,0,0,0,1,0,0,1
,0,0,0,0,0,0,1,1,1,0,0,0,1,1,0,1,0,0,1,0,0,1,1,0,0,1,1,0,0,0,0,
1,1,1,0,0,0,0,1,0,0,1,0,1,0,0,0,0,0,0,0,0,1,0,0,0,1,0,1,1,0,1,0,0,0,1,0
,1,1,0,1,0,0,1,0,1,0,0,1,0,1,0,0,0,0,1,0,0,1,0,0,1,0,1,0,0,0,1,0,0,0,0,
1,0,0,0,1,0,0,0,1,0,0,1,0,0,0,1,0,1,0,0,1,0,1,0,1,1,0,0,1,0,0,0,0,1,0,1
,0,1,1,0,1,0,1,0,1,0,0,0,0,0,1,0,0,1,1,0,0]

Expansion in base exp(Pi/5) of 1/(1-frac(x)) :
[1,1,1,0,1,1,0,0,0,1,0,0,0,1,1,0,1,1,1,0,0,1,0,0,0,0,1,1,0,1,1,0,0,0,1,
1,0,1,1,0,1,0,1,0,0,1,1,0,1,0,0,1,0,0,0,0,0,1,1,0,0,1,0,0,1,0,0,0,0,0,1,0
,0,1,1,0,1,1,0,0,0,0,0,1,0,0,0,0,1,1,0,1,0,1,0,0,1,0,1,0,0,1,0,0,0,0,1,
1,0,0,1,0,1,1,0,0,1,1,1,0,0,1,0,0,0,1,0,0,1,0,1,1,0,1,1,1,0,0,0,1,1,0,1
,0,0,0,1,1,0,1,1,1,0,0,0,1,0,1,0,0,1,1,1,0,0,0,1,1,0,0,0,0,0,0,0,0,1,0,
0,1,0,0,0,0,1,1,0,1,1,0,0,1,1,0,1,1,0,1,0,0,1,0,0,0,0,0,1,1,0,0,0,1,1,0
,0,1,1,0,1,0,1,0,0,0,1,0,1,0,1,1,0,1,1,0,1]

Expansion in base exp(2*Pi/5) of 1-frac(x) :
[3,1,1,0,2,2,2,2,0,0,0,1,1,1,2,2,0,0,1,1,0,0,2,3,1,2,1,3,0,2,1,2,2,1,0,
2,1,0,2,2,0,3,1,0,3,1,0,2,1,2,2,2,2,2,0,1,2,1,0,2,2,2,0,1,3,1,0,2,3,0,3
,0,2,2,2,1,1,2,1,0,0,2,0,1,0,0,1,2,2,2,3,0,1,0,2,3,0,1,0,2,1,1,1,3,1,1,
0,1,2,0,0,0,1,1,2,1,2]

Expansion in base exp(2*Pi/5) of 1/(1-frac(x)) :
[3,2,0,3,1,1,2,2,3,0,1,1,0,0,2,3,0,2,2,1,0,0,2,3,1,2,2,0,1,2,1,2,1,3,0,
1,1,0,0,0,3,0,3,1,2,1,0,0,0,0,2,0,3,0,0,0,0,0,1,0,1,2,2,1,1,2,2,2,0,0,2
,2,3,0,2,0,0,0,0,0,2,2,2,0,0,0,2,1,3,0,3,1,2,0,2,0,1,1,1,1,1,0,0,3,0,1,
1,1,2,2,3,0,2,3,0,1,2]

Expansion in base e or exp(1) of 1-frac(x) :
[2,1,1,2,0,2,0,1,2,0,1,0,1,1,0,1,0,2,1,2,0,0,2,1,1,1,0,1,2,0,1,1,0,2,1,
1,1,0,1,1,0,2,1,0,1,0,2,0,0,1,1,1,0,2,0,2,0,1,2,1,2,0,0,1,0,2,0,0,2,0,0
,0,0,1,1,1,0,0,2,1,1,0,2,0,0,0,0,2,1,1,0,1,2,1,2,1,0,1,1,2,0,1,0,1,2,0,
1,0,0,1,0,0,1,0,0,1,2,0,1,2,0,1,2,0,2,0,1,1,1,1,1,1,1,2,0,1,1,0,0,0,0,0
,1,0,1,2,0]

Expansion in base e or exp(1) of 1/(1-frac(x)) :
[2,2,0,1,2,0,0,0,0,2,1,2,1,0,2,0,1,1,0,0,2,0,0,0,0,2,1,1,2,1,2,1,0,2,0,
0,1,1,0,2,1,1,2,0,0,0,1,0,0,2,1,0,0,1,2,1,1,1,0,0,2,0,0,1,1,1,0,0,0,0,1
,0,1,2,0,0,0,2,1,0,1,2,1,1,0,1,0,0,0,1,0,0,2,1,2,1,1,0,1,0,0,2,0,0,0,1,
1,0,2,1,0,1,0,1,0,2,1,0,0,0,2,1,1,1,0,0,1,1,0,2,0,0,0,0,0,1,2,0,1,0,2,1
,2,0,1,1,0]

Expansion in base 1+sqrt(2) of 1-frac(x) :
[2,0,1,2,0,0,2,0,1,1,0,0,1,0,0,0,1,1,1,2,0,1,0,2,0,1,0,1,0,2,0,0,1,2,0,
0,1,1,0,0,1,1,0,1,0,1,1,2,0,0,1,0,0,1,0,1,1,0,1,1,2,0,2,0,0,0,0,1,2,0,1
,2,0,0,1,0,1,0,0,0,1,2,0,0,1,1,0,0,1,0,0,0,0,0,0,2,0,2,0,1,0,0,1,1,1,0,
0,1,1,1,0,1,2,0,2,0,2,0,0,2,0,1,1,0,2,0,1,1,1,2,0,1,2,0,1,2,0,1,0,1,0,0
,0,2,0,1,0,1,1,1,0,2,0,1,1,2,0,2,0,1,1,0,1,0,0,0,0]

Expansion in base 1+sqrt(2) of 1/(1-frac(x)) :
[2,1,0,1,0,1,1,2,0,0,0,1,0,1,0,1,0,0,0,1,1,1,0,0,1,1,1,1,2,0,1,0,0,0,1,
2,0,1,0,1,0,0,0,1,0,0,1,1,2,0,0,0,0,0,2,0,0,2,0,0,2,0,0,2,0,1,0,0,0,1,0
,2,0,1,1,0,0,0,0,0,0,1,1,1,2,0,1,0,0,0,1,1,0,2,0,1,1,1,0,1,0,0,0,0,0,2,
0,1,0,1,0,0,0,0,0,1,2,0,0,0,2,0,0,0,1,0,1,1,2,0,1,0,0,2,0,2,0,1,2,0,0,0
,2,0,1,1,1,2,0,1,0,0,1,1,0,1,1,0,2,0,1,2,0,1,1,2,0]

Expansion in base exp(2*Pi*n) - 1 of x :
[1,19,395,376,498,477,376,371,246,142,17,260,475,513,30,11,528,467,422,
408,7,509,405,502]

Expansion in base exp(2*Pi*n) + 1 of x :
[1,19,433,378,293,488,25,465,386,480,252,396,161,282,431,320,499,514,18
1,272,237,363,14,514]

Expansion in base exp(Pi*n) - 1 of x :
[1,0,19,17,2,6,12,0,14,21,17,13,17,7,4,7,6,4,5,6,9,0,11,13,2,14,17,2,15
,17,17,0,6,14,16,1,18,18,21,11,1,10,11,2,20,22,18]

Expansion in base exp(Pi*n) + 1 of x :
[1,0,19,18,17,4,18,1,17,12,7,2,14,10,21,4,1,4,20,18,4,7,11,5,4,2,9,8,12
,11,12,11,13,4,4,14,10,8,20,0,19,9,4,20,14,19,13]

Expansion in base Pi^n - 1 of x :
[1,0,0,1,0,1,0,0,3,0,0,1,3,0,0,1,2,3,0,1,0,3,0,0,2,2,0,2,2,1,1,0,0,1,0,
1,2,0,2,3,0,0,1,2,0,1,0,2,1,2,0,0,1,0,0,0,1,1,0,3,0,0,2,1,0,0,3,0,0,2,0
,1,1,0,0,2,0,0,3,0,0,0,1,0,2,0,2,0,1,2,0,2,2,0,1,1,1,0,0,1,1,1,0,0,0,0,
1,1,2,0,0,0,0,1,2,1,1,1,0,2,1,3,0,1,0,1,3,0,0]

Expansion in base Pi^n + 1 of x :
[1,0,0,1,0,1,2,1,0,0,1,2,0,0,1,0,2,2,2,1,2,1,2,0,0,1,0,1,1,1,1,1,1,2,0,
1,2,0,0,2,1,2,0,1,0,1,1,0,0,1,1,2,1,2,2,0,0,1,2,1,0,2,0,2,1,2,0,2,1,2,2
,0,2,1,1,2,2,0,2,3,0,0,0,1,0,3,0,0,0,0,0,1,1,0,0,1,1,2,0,1,2,1,2,2,2,0,
2,1,0,1,1,2,0,1,2,1,0,1,0,1,1,0,1,0,1,2,1,1,1]

Expansion in base 2^n - 1 of x :
[1,0,0,0,0,1,0,0,1,0,0,1,1,0,0,0,1,0,0,0,0,0,0,1,0,0,1,1,0,0,1,0,1,1,1,
1,1,0,1,0,1,1,0,1,0,1,1,0,1,1,0,0,0,0,0,1,0,0,1,0,0,0,1,0,1,1,1,1,1,1,1
,1,1,1,1,0,0,0,1,0,0,0,0,0,0,0,1,0,0,1,1,1,0,1,0,1,0,0,0,0,0,0,0,1,0,1,
1,0,0,0,0,0,0,0,1,0,1,1,0,0,0,0,0,0,1,0,1,0,1,0,1,0,1,1,1,1,1,1,1,0,0,0,0,0,0
,0,0,1,1,0,0,0,1,1,0,1,1,1,1,0,1,1,1,0,1,1,1,1,1,1,0,0,1,1,1,1,1,1,0,0,1,1,
1,1,1,0,1,0,1,1,0,0,1,0,1,1,1,1,1,1,1,0,1,0,1,0,1,0,0,1,1,0,0,0,1,0,1,1,0
]

Expansion in base 2^n + 1 of x :
[1,0,0,0,0,1,0,0,1,1,0,1,1,0,0,1,1,0,1,1,0,1,1,0,0,0,1,0,1,0,1,1,0,0,0,
0,1,1,1,0,0,0,0,0,1,0,1,1,0,0,0,1,0,0,1,1,1,0,0,0,1,1,0,1,1,1,0,1,0,1,0
,1,0,0,0,0,1,1,0,0,1,0,1,0,0,1,1,1,0,0,0,0,1,1,1,0,0,0,1,1,0,1,1,0,0,1,
0,0,1,0,1,1,1,0,0,1,0,0,0,0,1,1,1,1,0,0,1,1,0,0,1,0,0,0,0,0,0,1,1,1,1,1
,0,1,1,1,1,1,1,1,1,0,1,1,0,0,0,1,0,0,0,1,0,0,1,1,1,0,1,1,1,1,1,0,1,0,0,
1,0,1,1,0,0,0,1,1,1,0,1,0,1,1,1,1,1,0,1,1,0,0,0,1,1,0,0,0,0,1,0,1,1,1,1
]

Expansion in base exp(n) - 1 of x :
[1,0,0,0,1,2,1,2,1,0,1,0,1,2,1,0,2,1,0,0,2,0,2,0,0,0,2,1,1,2,0,1,1,0,0,
2,0,0,1,1,0,2,1,1,0,1,0,2,1,0,2,1,1,2,1,1,0,2,0,2,0,0,0,0,0,0,0,2,0,2,0
,0,2,1,1,1,1,1,1,2,1,1,1,1,1,1,0,0,1,1,1,1,1,1,1,0,2,0,1,1,0,0,2,0,0,1,

2,0,1,1,1,2,1,2,0,0,0,0,0,1,0,0,0,1,2,0,2,0,0,0,1,1,0,2,1,1,1,1,2,1,1,1
,2,1,1,1,1,2]

Expansion in base exp(n) + 1 of x :
[1,0,0,0,2,0,0,1,0,0,0,2,1,2,0,0,1,2,1,1,0,0,0,1,2,0,2,1,1,1,0,1,0,0,2,
0,0,2,0,0,1,1,1,2,1,1,0,0,1,1,0,0,0,0,1,1,0,2,0,1,1,2,1,2,0,0,2,1,2,0,2
,0,0,1,1,0,0,0,0,2,1,2,0,2,1,0,0,2,1,1,0,0,0,0,2,0,0,1,0,0,0,2,0,1,1,1,
1,1,1,1,1,0,1,2,1,1,1,1,0,1,2,0,2,1,2,0,0,0,0,2,0,1,2,1,0,0,0,1,0,1,0,2
,0,1,1,1,0,2]

Expansion in base 10^n - 1 of x :
[1,0,3,6,6,1,8,6,5,8,7,2,0,2,7,1,5,0,1,1,4,8,8,3,7,3,2,0,2,3,0,8,3,5,7,
6,6,0,0,6,4,4,2,7,1,2,8,6,1,1,6,5,4,8,5,3,7,6,5,5,6,5,3,7,7]

Expansion in base 10^n + 1 of x :
[1,0,3,7,2,3,1,7,9,8,1,5,2,4,0,1,3,3,7,3,6,7,5,7,1,1,8,2,2,6,3,1,9,2,0,
9,0,0,4,6,6,9,8,0,1,0,9,2,3,2,0,4,1,1,7,2,1,4,5,0,1,6,3,1,5]

Expansion in base exp(2*Pi*n) - 1 of 1/x :
[0,515,245,90,340,446,313,348,423,533,6,332,142,460,187,282,448,450,409
,456,444,427,15,435]

Expansion in base exp(2*Pi*n) + 1 of 1/x :
[0,517,206,100,183,274,445,116,26,354,361,204,311,473,29,434,369,218,94
,171,247,331,385,330]

Expansion in base exp(Pi*n) - 1 of 1/x :
[0,21,8,11,14,22,20,0,1,9,5,19,10,21,14,7,22,1,22,4,16,4,4,15,17,9,14,1
2,3,11,20,17,13,13,1,19,10,8,8,3,14,18,13,2,5,5,4]

Expansion in base exp(Pi*n) + 1 of 1/x :
[0,23,6,5,14,20,19,13,15,5,21,20,4,11,0,7,4,11,10,15,20,14,14,7,5,20,19
,5,7,9,4,12,14,20,9,14,12,5,8,8,2,21,3,12,2,0,3]

Expansion in base Pi^n - 1 of 1/x :
[0,2,0,0,2,2,3,0,0,2,0,3,0,0,0,0,1,0,3,0,1,0,0,1,3,0,0,2,2,3,0,0,2,1,1,
0,0,0,2,1,3,0,0,2,2,1,0,0,2,2,0,2,1,0,1,1,1,2,0,0,0,1,1,0,2,1,1,0,0,0,1
,1,0,2,1,3,0,0,1,0,0,2,1,0,0,3,0,0,1,1,0,1,2,1,2,2,1,1,0,2,0,0,0,0,0,1,
0,0,3,0,0,2,1,2,1,1,1,0,2,1,0,2,0,2,1,1,1,2,0]

Expansion in base Pi^n + 1 of 1/x :
[0,3,2,1,2,1,1,0,1,1,2,1,1,2,1,0,2,0,1,1,3,0,0,0,2,0,0,0,0,2,3,0,0,0,1,
2,3,0,0,1,1,2,2,1,0,2,2,1,0,1,1,2,2,0,1,1,2,2,1,1,0,1,0,0,1,1,0,2,0,2,0
,1,1,0,0,2,0,0,3,0,0,2,0,0,0,2,3,0,0,0,1,0,2,1,2,2,2,0,0,2,2,2,0,0,0,0,
2,3,0,1,0,2,2,0,0,1,0,1,0,2,0,1,2,2,0,0,1,1,2]

Expansion in base 2^n - 1 of 1/x :
[0,0,2,2,0,0,0,1,1,0,0,0,0,1,1,0,1,1,1,0,1,0,0,0,0,0,1,1,0,0,0,0,1,1,0,
0,0,1,1,1,0,0,0,1,1,0,0,1,0,0,1,1,0,0,0,1,0,0,1,1,0,1,1,1,0,0,1,1,0,1,0
,0,1,1,0,0,0,1,0,1,1,0,1,1,1,1,0,0,0,1,0,0,1,1,1,0,1,0,1,0,1,1,0,1,1,1,
1,0,0,0,0,0,0,1,0,1,1,0,0,0,0,0,1,0,1,1,1,0,1,0,0,1,0,1,1,1,1,1,1,0,1,0
,0,1,1,0,0,0,0,0,0,1,1,0,0,0,1,1,0,0,1,0,1,1,1,1,1,0,1,1,1,0,1,1,1,0,0,
0,0,1,0,0,0,0,1,1,1,1,0,1,0,0,0,0,0,0,1,0,0,1,0,0,0,1,1,1,0,0,1,0,0,0,0
]

Expansion in base 2^n + 1 of 1/x :
[0,2,1,0,1,1,0,1,0,0,0,1,1,0,1,1,1,0,0,1,1,0,1,1,0,0,1,1,1,0,0,1,1,0,0,
0,1,1,0,1,1,0,0,0,1,1,0,0,1,0,0,0,0,0,1,1,0,1,1,1,0,1,0,1,0,0,0,0,1,0,0

,0,1,1,1,1,1,1,0,1,1,1,0,0,0,0,1,0,1,0,0,0,1,1,0,1,1,0,0,0,0,1,1,0,1,1,
1,0,1,0,1,0,1,0,1,1,0,1,1,0,1,1,1,1,0,0,1,0,1,1,0,0,0,1,1,1,0,1,1,1,1,1,1,0
,0,0,0,0,1,0,1,0,0,0,0,0,0,0,0,1,1,0,1,0,0,0,1,1,0,1,1,0,0,0,0,0,1,1,1,
0,1,1,1,0,1,0,0,1,1,1,1,0,0,0,1,0,1,0,0,1,0,1,1,0,0,1,0,1,1,0,1,1,1,1,1
]

Expansion in base exp(n) - 1 of 1/x :
[0,1,2,1,0,2,1,1,0,0,0,0,2,1,0,0,1,1,0,2,0,2,1,0,2,0,0,0,1,0,1,1,0,1,1,
2,0,2,1,1,1,1,1,0,0,1,1,0,1,1,2,1,2,0,1,0,0,1,0,2,0,2,0,1,1,0,0,0,0,0,1
,0,1,0,1,0,1,0,1,2,1,1,1,1,1,1,2,0,2,0,2,1,2,1,1,0,2,1,0,2,1,0,2,1,1,2,
1,1,2,0,0,0,1,0,1,1,2,1,0,0,2,0,2,0,1,1,1,0,2,0,2,0,1,1,2,1,1,1,1,0,1,0
,0,1,1,1,2,0]

Expansion in base exp(n) + 1 of 1/x :
[0,3,1,0,2,0,0,2,1,1,2,0,2,1,1,2,0,2,1,0,0,1,2,1,2,0,2,0,1,1,1,2,0,1,0,
1,1,1,2,1,1,1,2,1,1,0,1,2,1,0,2,0,1,0,1,1,1,1,1,0,1,1,1,1,0,0,2,0,0,1,0
,0,1,1,1,0,0,1,0,1,0,1,0,2,1,1,2,0,0,2,0,2,1,1,2,1,1,1,1,2,1,1,2,1,0,1,
2,1,1,0,1,1,1,0,1,1,1,2,0,0,0,2,1,1,2,1,0,1,1,1,2,0,1,0,0,0,1,1,1,1,1,1
,0,0,1,0,0,0]

Expansion in base 10^n - 1 of 1/x :
[0,8,7,4,7,8,7,3,0,6,0,1,5,2,6,0,1,4,6,0,0,9,7,1,6,7,9,7,2,2,9,9,3,9,4,
3,0,2,7,0,5,2,5,3,3,3,6,2,5,2,2,0,7,9,1,8,0,6,7,7,3,0,3,9,2]

Expansion in base 10^n + 1 of 1/x :
[0,10,5,5,7,9,6,5,4,6,7,4,7,3,4,0,9,6,8,3,4,7,2,7,0,7,4,9,0,5,0,3,1,6,4
,5,6,3,0,3,3,6,1,5,7,2,4,8,5,2,6,0,6,2,7,8,0,3,5,3,2,1,6,2,4]

Expansion in base exp(2*Pi*n) - 1 of 1-frac(x) :
[0,514,404,298,100,214,459,532,521,384,266,337,93,306,521,3,224,430,532
,381,109,79,390,434]

Expansion in base exp(2*Pi*n) + 1 of 1-frac(x) :
[0,516,363,308,257,43,472,37,123,439,469,160,110,100,128,487,475,452,58
,358,431,156,89,209]

Expansion in base exp(Pi*n) - 1 of 1-frac(x) :
[0,21,7,18,12,8,17,10,7,1,15,6,9,5,4,6,20,2,23,2,1,0,13,11,18,17,6,11,2
,22,17,19,13,1,11,14,14,18,12,10,20,14,16,17,1,20,14]

Expansion in base exp(Pi*n) + 1 of 1-frac(x) :
[0,23,5,12,10,7,7,20,6,22,5,8,16,9,10,5,10,14,6,2,21,20,2,21,14,11,17,7
,7,12,6,16,19,0,22,2,5,20,4,6,14,16,12,19,15,12,1]

Expansion in base Pi^n - 1 of 1-frac(x) :
[0,2,0,0,2,2,1,2,1,2,0,2,2,2,1,1,0,0,1,1,2,1,1,1,1,0,2,1,0,0,0,1,2,1,1,
1,0,0,2,1,3,0,0,0,2,0,1,2,1,2,0,2,0,2,1,1,3,0,1,1,0,0,0,0,1,0,0,1,0,2,2
,0,1,1,2,1,1,2,0,0,1,2,0,2,0,2,2,1,2,0,1,0,2,0,0,0,1,0,2,1,2,0,0,2,0,1,
2,2,0,1,0,2,1,0,0,1,1,2,3,0,1,0,1,1,2,3,0,0,0]

Expansion in base Pi^n + 1 of 1-frac(x) :
[0,3,2,1,2,0,3,0,0,0,2,2,1,0,1,2,2,2,2,2,0,0,0,1,1,0,2,2,0,0,0,1,3,0,0,
2,2,1,2,2,3,0,1,0,1,2,2,2,2,3,0,0,0,2,0,0,2,1,1,1,1,1,1,1,2,1,2,1,1,2,2
,1,2,1,1,2,1,0,0,1,1,1,0,3,0,1,0,1,1,1,1,0,1,1,2,0,0,1,0,1,1,1,0,1,2,1,
2,1,0,0,1,0,1,2,0,0,0,0,1,2,1,2,1,2,1,1,0,0,0]

Expansion in base 2^n - 1 of 1-frac(x) :
[0,0,2,2,0,0,0,1,0,1,0,1,1,1,0,0,0,0,1,0,1,1,1,0,0,1,0,1,0,1,1,1,0,1,0,

1,1,0,1,0,1,0,1,0,0,1,1,0,0,0,1,0,1,0,0,0,1,0,0,1,1,1,0,1,1,0,1,0,1,0,0
,1,1,1,1,0,0,0,0,0,0,0,0,0,0,0,1,1,1,1,0,0,1,0,1,1,1,1,0,0,1,1,1,1,0,0,
1,0,1,0,1,1,1,0,0,0,1,0,0,0,1,0,0,0,0,0,1,1,1,1,0,0,0,0,1,0,1,0,1,0,0,0
,1,1,0,0,1,1,0,0,1,0,1,0,0,0,1,1,0,0,0,1,0,0,0,0,0,0,0,1,0,1,0,1,0,1,0,
0,1,0,0,1,1,0,0,1,0,1,1,0,1,0,1,0,1,0,0,1,0,0,1,0,1,1,1,1,0,0,0,0,1,0,0,1
]

Expansion in base 2^n + 1 of 1-frac(x) :
[0,2,1,0,1,1,0,0,1,1,1,0,1,1,1,1,0,0,1,0,1,1,0,0,1,1,1,0,1,1,0,1,1,0,1,
0,1,1,0,1,1,0,0,1,1,0,0,0,1,1,0,0,1,0,1,1,0,1,1,1,0,1,0,0,1,1,1,1,1,1,1
,0,1,1,1,1,1,0,1,1,0,1,0,1,0,1,0,0,1,0,1,0,1,1,0,1,0,0,1,1,1,0,1,0,1,1,
0,1,0,1,0,0,0,1,1,1,1,1,0,1,1,0,1,0,0,0,0,1,0,1,0,1,1,0,1,1,0,0,1,1,1,0
,1,1,1,1,0,1,1,0,1,0,1,1,0,1,1,0,1,1,0,0,0,0,1,0,0,1,1,1,1,0,0,0,0,1,0,
0,0,1,0,0,1,0,1,0,0,1,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,1,1,0,1,1,1,0,0,0,0,0
]

Expansion in base exp(n) - 1 of 1-frac(x) :
[0,1,2,1,0,2,0,2,0,2,0,1,1,0,2,1,1,0,2,1,1,2,0,2,0,2,1,0,1,1,0,0,0,2,1,
2,0,1,1,0,0,2,0,2,0,2,0,0,1,1,1,1,2,1,0,2,1,1,2,1,0,2,0,2,1,1,1,1,1,1,0
,2,0,1,1,1,0,0,1,2,0,0,0,2,1,1,1,2,0,2,0,0,2,1,0,1,0,0,0,0,0,0,1,0,1,0,
0,0,0,0,1,1,2,0,0,0,1,0,1,1,2,0,2,1,2,0,1,0,1,1,2,1,0,1,2,0,1,0,2,1,1,0
,2,1,1,2,0,1]

Expansion in base exp(n) + 1 of 1-frac(x) :
[0,3,1,0,2,0,0,1,0,1,0,2,0,2,0,0,2,1,0,0,1,1,0,2,1,0,1,0,0,1,2,0,1,0,2,
0,1,0,1,1,1,1,2,1,1,2,0,0,1,1,0,1,0,0,1,2,1,0,1,1,1,1,1,0,2,0,2,0,0,0,1
,2,0,2,0,1,1,1,0,0,0,0,1,1,0,0,2,1,0,1,1,0,2,0,2,0,0,2,1,0,1,0,0,0,0,1,
0,2,1,0,0,0,0,1,0,1,2,1,0,1,2,1,0,0,1,0,0,1,1,2,0,0,1,0,2,1,0,1,0,0,0,0
,1,1,1,2,0,2]

Expansion in base 10^n - 1 of 1-frac(x) :
[0,8,7,3,4,7,3,2,4,1,5,5,0,6,3,9,6,7,0,5,4,3,5,2,3,7,8,9,0,1,9,8,5,7,4,
3,4,9,2,1,9,0,8,9,6,0,6,7,8,7,2,5,7,7,4,7,2,8,0,6,7,2,7,1,3]

Expansion in base 10^n + 1 of 1-frac(x) :
[0,10,5,4,4,8,0,4,2,2,0,7,0,7,0,0,0,8,3,8,4,1,7,5,3,8,1,8,9,5,9,1,5,5,9
,3,1,0,5,4,7,3,2,3,0,7,4,2,4,8,7,7,0,0,1,8,0,4,7,3,4,3,6,3,3]

Expansion in base exp(2*Pi*n) - 1 of 1/(1-frac(x)) :
[1,20,265,126,40,466,434,162,282,277,222,116,524,441,268,258,465,116,49
8,51,487,412,411,342]

Expansion in base exp(2*Pi*n) + 1 of 1/(1-frac(x)) :
[1,20,305,127,115,204,3,135,138,470,427,466,520,415,502,441,17,517,62,1
42,58,392,344,45]

Expansion in base exp(Pi*n) - 1 of 1/(1-frac(x)) :
[1,0,20,11,10,15,10,15,21,0,12,7,21,13,7,8,13,21,15,13,9,17,20,5,21,3,1
7,9,11,9,9,2,7,3,21,9,7,1,10,9,6,17,6,21,10,20,16]

Expansion in base exp(Pi*n) + 1 of 1/(1-frac(x)) :
[1,0,20,13,4,9,22,22,1,4,8,18,5,0,15,8,3,8,7,14,10,22,11,9,15,8,8,0,12,
10,3,1,10,22,7,14,7,13,16,16,4,15,1,4,19,1,2]

Expansion in base Pi^n - 1 of 1/(1-frac(x)) :
[1,0,0,1,0,1,1,2,0,1,0,0,1,1,2,0,1,2,1,0,2,2,2,0,2,0,1,1,1,0,2,2,2,0,1,
2,2,2,2,0,0,3,0,1,1,0,1,1,0,2,3,0,1,0,2,0,0,0,0,2,1,1,1,1,2,2,3,0,0,1,2

,1,1,2,0,0,1,1,1,1,1,0,1,1,2,1,2,0,1,1,1,2,2,2,0,0,1,1,1,0,1,1,1,1,2,2,
1,1,0,1,0,2,1,1,2,2,2,2,1,2,3,0,0,2,1,1,1,0,2]

Expansion in base Pi^n + 1 of 1/(1-frac(x)) :
[1,0,0,1,0,2,0,1,2,1,0,3,0,0,0,3,0,0,0,0,0,1,2,1,1,2,2,0,2,1,1,2,0,1,0,
1,1,0,0,3,0,0,0,2,1,0,0,0,2,1,2,0,0,2,2,3,0,1,0,2,1,1,3,0,0,1,1,2,1,1,1
,1,1,0,0,1,0,1,1,1,2,1,2,0,1,2,0,3,0,0,2,1,1,1,2,1,0,1,0,2,2,0,0,2,2,1,
1,1,1,1,0,1,2,2,1,0,2,1,2,0,2,3,0,0,0,2,0,1,0]

Expansion in base 2^n - 1 of 1/(1-frac(x)) :
[1,0,0,0,0,1,0,0,1,1,0,0,0,1,1,0,1,1,0,0,1,0,0,1,0,1,0,0,1,1,0,1,1,1,0,
0,0,1,1,1,1,0,0,1,1,1,0,0,0,1,1,0,0,0,1,0,1,1,0,0,1,0,0,0,1,1,0,0,1,0,1
,1,0,0,1,0,0,0,1,1,1,1,0,0,0,0,1,1,0,0,1,1,1,1,0,1,0,1,1,0,1,0,0,1,0,0,
0,1,1,0,0,1,0,1,0,1,0,0,0,1,1,1,1,1,1,1,0,1,0,1,1,0,1,1,0,1,1,1,0,1,1,1
,1,0,0,0,0,0,0,0,0,1,1,1,1,0,1,0,1,1,1,1,1,1,0,0,0,0,0,1,0,0,1,0,1,0,0,1,
1,0,1,1,1,0,0,0,0,1,1,0,1,0,0,0,0,1,0,1,0,1,1,0,1,1,1,0,0,0,1,1,1,1,0,0
]

Expansion in base 2^n + 1 of 1/(1-frac(x)) :
[1,0,0,0,0,1,0,1,0,0,0,0,1,0,0,1,0,1,1,1,0,1,1,0,1,0,0,1,0,1,0,1,0,0,0,
0,0,1,0,1,0,0,0,0,1,0,0,0,1,0,0,0,1,1,1,0,1,1,1,0,0,1,0,1,1,0,1,0,1,0,0
,0,1,1,1,1,1,1,0,0,0,1,1,0,1,1,1,1,1,1,1,0,0,1,0,0,0,0,0,0,1,0,1,1,0,0,0,
0,1,1,1,1,1,1,1,0,0,0,0,1,0,0,1,0,1,1,1,1,0,0,1,0,1,1,1,0,0,0,1,0,1,1,1,1
,0,0,0,1,0,0,0,0,0,0,0,1,1,0,0,0,0,1,1,1,0,0,0,1,1,0,1,0,0,1,0,1,1,0,0,
1,0,0,0,1,0,1,1,0,0,1,0,1,0,1,1,0,0,0,0,1,1,1,1,0,0,1,1,0,0,0,1,0,0,1,1
]

Expansion in base exp(n) - 1 of 1/(1-frac(x)) :
[1,0,0,0,2,0,0,1,0,0,2,1,1,1,0,1,0,1,0,1,1,1,2,1,1,2,0,2,0,1,2,1,0,1,0,
0,0,2,1,0,1,1,0,0,2,1,0,1,0,2,1,2,0,2,0,0,0,2,1,0,0,0,0,1,0,2,1,1,0,0,1
,0,0,0,2,0,0,2,1,2,0,2,0,2,0,1,2,0,0,1,2,0,2,0,0,1,0,1,0,2,0,2,0,0,1,2,
0,1,0,0,0,1,0,1,2,0,1,0,0,1,1,0,0,1,0,1,1,0,1,0,2,1,1,1,1,2,1,1,0,2,1,1
,2,0,0,1,1,2]

Expansion in base exp(n) + 1 of 1/(1-frac(x)) :
[1,0,0,0,2,0,0,2,1,1,1,2,1,2,1,0,1,0,1,1,2,0,1,1,0,1,2,1,0,2,0,1,2,0,2,
1,0,1,0,1,1,1,0,1,2,1,1,0,1,1,2,1,0,2,0,2,0,2,0,1,0,0,1,1,0,0,1,0,1,0,1,0,2
,0,2,1,0,0,1,0,2,1,1,0,1,0,0,2,0,2,1,0,0,0,1,1,2,1,1,2,0,0,1,2,0,0,2,1,
0,2,1,0,2,1,1,1,1,1,0,1,0,0,2,0,0,0,1,2,1,1,0,0,0,1,1,1,1,2,1,0,0,2,0,1
,0,1,2,0,0,0]

Expansion in base 10^n - 1 of 1/(1-frac(x)) :
[1,0,3,8,0,3,2,6,6,3,3,6,8,3,2,8,6,2,5,5,4,6,4,0,5,3,5,4,2,6,3,8,5,0,7,
6,6,4,5,1,6,8,2,6,4,6,5,2,4,4,7,0,8,7,3,9,0,0,7,0,6,8,0,8,9]

Expansion in base 10^n + 1 of 1/(1-frac(x)) :
[1,0,3,8,6,4,8,7,8,4,0,9,4,4,6,0,2,4,2,6,4,6,9,5,3,3,2,5,3,9,2,1,8,8,3,
9,0,5,6,3,5,1,3,9,3,3,1,0,0,5,3,0,3,0,2,8,6,1,2,5,9,9,0,1,6]

Expansion in base (n*exp(2*Pi*n) - 1) of x :
[1,19,791,327,396,22,435,461,491,28,87,429,34,263,550,146,290,536,57,16
1,286,172,441,469]

Expansion in base (n*exp(2*Pi*n) + 1) of x :
[1,19,867,332,294,61,620,402,117,225,532,71,122,44,495,413,16,133,236,1
64,259,254,436,156]

Expansion in base (n*exp(Pi*n) - 1) of x :
[1,0,39,16,16,3,17,25,7,1,11,15,6,1,17,23,24,6,20,1,9,1,1,16,13,18,2,17
,14,4,5,1,13,19,3,3,18,12,0,10,1,20,17,3,6,8,15]

Expansion in base (n*exp(Pi*n) + 1) of x :
[1,0,39,21,17,27,11,9,7,25,2,2,2,17,7,5,11,16,16,3,2,19,6,2,13,7,9,22,2
3,7,16,9,10,11,21,21,20,19,1,19,12,10,17,17,15,4,20]

Expansion in base (n*Pi^n - 1) of x :
[1,0,0,3,1,1,2,0,0,1,1,2,0,3,1,0,0,1,3,0,0,0,2,0,2,2,1,1,2,0,2,2,1,3,0,
1,2,2,3,0,0,1,2,0,2,0,2,0,0,1,0,1,2,1,0,0,1,1,0,0,2,2,0,0,1,0,1,0,1,1,3
,0,0,2,1,2,2,2,1,1,2,2,0,2,2,1,0,3,0,0,0,1,2,2,0,1,1,2,2,0,0,2,1,3,0,0,
2,0,2,0,2,0,1,1,0,0,2,2,0,1,1,1,2,1,0,1,2,3,0]

Expansion in base (n*Pi^n + 1) of x :
[1,0,0,3,2,0,3,1,2,2,2,0,3,0,2,3,0,0,2,2,0,0,2,3,0,1,2,2,2,0,3,0,0,0,2,
2,2,0,0,1,1,2,1,3,0,1,3,0,1,1,0,1,2,1,1,2,3,0,1,3,0,0,1,0,3,0,1,1,2,0,0
,2,1,1,0,2,0,1,2,0,0,1,1,0,1,0,1,3,0,1,1,2,0,2,2,1,1,1,0,2,1,2,0,0,0,2,
0,0,2,0,0,2,2,3,0,0,0,1,1,2,2,2,0,2,0,2,0,2,2]

Expansion in base (n*2^n - 1) of x :
[1,0,0,0,2,0,1,0,1,2,0,0,1,0,0,1,1,1,0,0,1,0,1,0,0,0,0,1,0,1,0,0,1,0,1,
1,0,0,0,1,1,0,0,1,1,1,0,0,0,1,1,0,1,1,1,1,0,0,1,1,2,0,0,0,0,0,0,1,0,1,1
,0,1,1,1,1,0,1,1,1,0,0,1,1,0,0,0,0,0,1,0,1,1,1,0,0,1,1,1,1,1,1,0,1,0,0,
0,1,1,1,1,0,0,1,1,1,0,1,1,1,0,0,0,1,1,0,0,1,0,0,1,0,0,1,0,0,1,1,0,1,1,0
,1,0,0,1,0,0,1,0,1,1,1,0,1,1,0,1,0,1,0,0,0,1,1,1,1,1,0,1,0,1,1,1,1,0,1,
0,1,0,0,0,1,1,0,1,0,0,0,0,0,0,0,1,1,0,0,1,0,0,0,1,1,0,1,1,1,1,0,1,1,0,1
]

Expansion in base (n*2^n + 1) of x :
[1,0,0,0,2,1,0,1,0,1,1,0,1,1,0,2,0,0,0,0,0,0,1,0,1,1,0,1,1,0,1,1,1,1,0,
0,0,1,0,0,1,0,1,0,1,0,0,0,0,1,0,1,0,0,0,0,0,1,1,0,1,1,1,1,0,0,1,0,1,1,0
,0,0,0,0,0,0,1,1,0,0,1,0,0,0,0,1,0,1,1,0,1,1,0,0,0,0,1,0,1,0,1,1,1,0,1,
1,1,1,1,0,1,1,0,1,0,1,1,1,0,1,1,1,0,0,1,0,0,0,0,1,0,1,0,0,0,0,0,0,0,2,0
,0,0,0,0,0,0,0,1,1,1,1,1,0,1,0,0,1,0,1,0,0,1,1,1,0,0,1,1,0,0,0,0,1,1,0,
1,1,1,1,0,1,1,1,0,1,0,0,0,0,0,1,1,1,0,0,0,0,0,0,0,1,1,1,0,0,0,0,1,1,0,1
]

Expansion in base (n*exp(n) - 1) of x :
[1,0,0,2,0,1,1,1,2,0,2,2,0,0,0,0,1,0,2,1,1,2,1,2,1,0,1,1,2,2,0,1,0,0,2,
0,0,0,1,1,1,2,1,0,1,2,1,2,0,1,2,1,1,1,2,0,0,0,0,2,0,0,0,1,1,2,0,2,0,1,1
,1,2,1,2,1,1,1,1,0,0,1,2,0,0,0,2,1,1,2,0,0,1,0,0,2,0,2,1,0,2,1,1,0,1,1,
1,0,0,2,1,1,0,2,0,2,1,1,1,1,1,2,0,2,0,0,1,2,1,1,0,2,0,2,0,1,0,1,0,2,1,2
,0,0,2,1,1,0]

Expansion in base (n*exp(n) + 1) of x :
[1,0,0,2,1,0,1,3,0,0,2,1,1,1,1,2,2,0,1,2,0,1,0,1,0,1,1,1,0,2,1,2,0,1,0,
1,1,2,1,1,2,1,1,1,0,1,2,1,1,0,0,1,2,0,1,0,2,1,1,2,1,1,2,1,1,0,1,1,0,1,1
,0,0,1,1,0,2,1,0,1,2,0,1,0,0,2,0,1,1,1,1,0,0,2,1,0,0,0,2,0,0,1,0,2,1,0,
2,1,1,0,2,0,0,2,1,2,1,0,1,1,0,2,1,2,0,1,1,1,1,2,1,0,0,0,0,0,1,0,0,1,0,0
,0,2,1,0,2,1]

Expansion in base (n*10^n - 1) of x :
[1,0,7,4,9,7,3,2,0,5,1,9,6,10,3,6,1,7,1,6,7,2,1,2,8,1,3,9,0,7,3,3,8,8,2
,6,5,3,8,1,0,7,9,2,0,0,3,1,8,10,1,0,4,4,8,3,1,9,4,8,2,8,0,7,5]

Expansion in base (n*10^n + 1) of x :
[1,0,7,6,11,0,7,10,4,6,10,7,5,1,0,5,5,2,2,7,8,3,5,8,5,1,4,8,6,0,8,5,5,7,2,7,4,2,6,0,2,0,6,2,6,9,1,5,3,3,4,9,1,4,0,2,8,2,1,3,7,0,3,2,8]

Expansion in base (n*exp(2*Pi*n) - 1) of 1/x :
[0,515,490,271,649,232,179,233,569,393,552,98,288,515,545,451,196,353,461,171,114,363,441,18]

Expansion in base (n*exp(2*Pi*n) + 1) of 1/x :
[0,517,412,301,20,42,564,273,339,427,391,191,332,113,181,242,47,394,453,560,555,349,185,238]

Expansion in base (n*exp(Pi*n) - 1) of 1/x :
[0,21,17,0,5,6,24,15,10,2,3,13,17,2,9,24,6,23,15,5,8,11,0,16,8,15,18,10,4,5,10,20,20,1,22,17,15,18,20,4,3,8,1,12,14,12,12]

Expansion in base (n*exp(Pi*n) + 1) of 1/x :
[0,23,12,16,28,21,20,14,25,13,2,22,10,16,22,14,19,16,22,22,17,18,21,1,16,18,1,12,23,1,7,6,13,1,14,18,17,20,3,20,10,15,15,11,5,3,20]

Expansion in base (n*Pi^n - 1) of 1/x :
[0,2,0,2,3,0,2,3,1,1,0,0,0,2,2,2,2,0,3,0,3,0,1,0,2,1,0,2,2,0,2,1,1,2,0,1,2,0,1,1,1,0,1,1,0,3,0,0,1,0,1,1,0,0,0,2,2,2,0,1,2,1,1,1,0,1,0,2,1,2,1,0,1,2,2,2,1,0,1,2,1,1,2,0,0,1,1,3,0,0,0,2,2,1,1,1,3,0,1,1,0,2,0,0,2,2,2,1,2,0,1,2,0,2,1,1,2,0,0,0,0,0,2,1,1,0,1,2,2]

Expansion in base (n*Pi^n + 1) of 1/x :
[0,3,5,0,3,3,2,2,0,3,1,1,1,2,0,0,0,1,2,3,0,0,1,2,0,0,0,1,1,2,2,0,1,0,2,2,2,2,0,0,1,0,0,2,2,1,0,2,0,1,0,1,2,1,0,2,0,1,2,1,1,1,2,1,0,2,1,2,3,0,1,1,0,3,0,0,3,0,0,3,0,0,2,1,2,3,0,1,1,2,1,1,2,1,1,1,2,0,1,0,0,0,0,1,3,0,1,0,0,2,0,2,0,0,0,1,2,1,0,2,2,2,0,2,0,2,2,1,3]

Expansion in base (n*2^n - 1) of 1/x :
[0,0,5,2,2,0,0,2,0,1,0,0,0,1,1,0,1,1,1,0,1,0,0,1,1,0,0,1,0,0,1,0,1,0,1,0,0,1,0,1,1,0,1,1,1,1,1,0,2,0,0,0,0,0,0,0,1,0,0,0,1,0,1,1,0,1,1,0,1,0,1,1,0,0,0,0,0,1,1,0,0,0,1,1,0,0,1,0,0,0,1,1,0,1,2,0,0,0,0,0,1,0,0,1,0,0,1,1,0,1,1,0,0,1,1,0,0,1,0,1,2,0,0,0,0,0,0,1,1,0,0,1,0,1,0,0,1,1,0,0,1,1,1,0,0,1,1,2,0,0,0,0,0,0,1,1,1,0,0,0,1,0,0,1,1,0,1,0,1,0,1,1,0,1,0,1,0,1,0,1,0,1,0,0,1,1,0,0,0,0,0,0,1,0,0,1,0,1,1,0,1,1,0,1,0,1,1,0,1]

Expansion in base (n*2^n + 1) of 1/x :
[0,2,2,2,1,1,1,0,0,1,1,0,0,0,0,0,1,2,0,0,0,0,0,1,0,0,0,1,1,0,1,1,1,0,0,1,1,0,0,1,1,0,0,0,0,0,1,0,1,1,1,0,1,1,1,0,1,1,0,1,0,0,1,0,0,1,0,0,0,1,0,1,0,0,0,1,1,0,0,1,0,0,1,1,1,0,0,0,1,1,0,1,1,1,1,1,0,1,1,1,0,0,0,1,1,0,1,0,1,0,1,0,0,0,1,0,0,0,0,1,0,0,0,1,0,1,1,1,1,0,1,0,1,1,1,1,1,1,1,0,0,1,1,1,0,1,1,0,0,0,1,1,0,0,1,1,1,1,1,1,0,1,1,1,1,0,1,1,0,1,1,1,1,0,0,0,0,1,0,0]

Expansion in base (n*exp(n) - 1) of 1/x :
[0,1,4,3,3,2,0,2,0,0,2,2,0,1,1,2,0,1,0,0,2,0,1,0,2,0,1,0,2,0,2,1,2,0,1,2,2,0,0,1,1,0,0,1,0,2,1,1,1,0,2,0,0,0,2,0,0,2,0,1,0,0,0,0,0,1,1,1,2,1,0,0,1,0,1,2,2,0,0,0,0,1,1,0,2,1,1,2,1,0,1,0,2,1,1,2,1,1,0,2,1,0,1,0,1,0,1,1,2,0,1,0,0,1,2,0,1,0,2,1,1,1,0,1,1,2,1,0,0,1,2,1,2,0,1,2,0,0,1,2,0,0,0,1,0,1,2,0]

Expansion in base (n*exp(n) + 1) of 1/x :
[0,3,2,2,1,1,2,0,1,3,0,0,1,0,0,0,1,2,1,0,0,1,2,0,0,0,0,1,2,1,1,0,0,1,0,2,0,0,0,1,2,0,1,1,1,2,1,1,1,1,1,0,2,0,2,2,0,0,0,0,0,2,1,2,0,1,2,1,1,0,2,1,1,0,1,1,1,0,2,0,1,0,0,2,0,2,1,0,1,2,1,0,2,0,1,0,2,0,0,0,1,1,0,0,2,0,2,0,1,0,0,1,2,0,2,0,1,0,1,1,1,2,0,1,2,1,0,2,1,1,2,0,0,0,0,0,2,1,0,1,2,1,0,1,0,2,0,2]

Expansion in base (n*10^n - 1) of 1/x :
[0,8,14,14,4,10,0,2,3,2,8,4,4,0,8,4,9,4,1,5,2,1,7,5,5,6,3,2,6,5,7,10,2,9,0,3,0,5,3,3,5,0,9,3,5,5,6,4,4,9,6,9,3,7,0,8,3,6,7,5,6,3,8,0,8]

Expansion in base (n*10^n + 1) of 1/x :
[0,10,11,2,7,0,0,0,2,1,1,5,4,7,6,6,2,5,10,2,1,0,0,9,9,10,0,9,6,5,3,7,3,3,7,5,3,9,4,5,1,9,9,5,2,2,3,0,6,2,9,6,7,1,2,4,0,6,8,1,0,0,3,1,8]

Expansion in base (n*exp(2*Pi*n) - 1) of 1-frac(x) :
[0,514,809,91,230,32,190,369,382,288,173,245,460,554,386,266,218,433,31,307,356,435,142,147]

Expansion in base (n*exp(2*Pi*n) + 1) of 1-frac(x) :
[0,516,727,122,146,518,379,235,450,389,111,374,4,7,236,24,452,347,74,250,345,381,167,487]

Expansion in base (n*exp(Pi*n) - 1) of 1-frac(x) :
[0,21,15,20,25,18,26,20,6,4,0,5,23,10,17,21,21,5,9,15,15,20,23,0,22,16,22,4,13,10,17,6,1,13,9,17,4,3,8,23,16,15,11,20,14,3,17]

Expansion in base (n*exp(Pi*n) + 1) of 1-frac(x) :
[0,23,11,2,21,6,27,16,16,20,22,2,25,0,17,16,24,12,21,1,9,22,4,13,0,11,10,18,14,9,20,4,19,8,17,9,8,7,14,3,1,12,3,18,19,8,20]

Expansion in base (n*Pi^n - 1) of 1-frac(x) :
[0,2,0,2,2,2,2,2,2,1,0,2,2,1,2,1,2,1,2,2,1,1,2,1,1,0,0,1,2,2,0,0,1,1,2,0,0,2,1,0,1,2,1,0,1,3,0,0,0,0,2,1,1,2,0,3,0,0,1,1,1,1,2,0,3,0,0,2,1,1,1,0,2,1,2,1,1,0,1,1,0,2,0,1,2,0,1,0,0,1,0,2,1,2,1,2,1,2,1,2,2,0,0,0,2,3,0,0,2,1,1,2,0,2,1,2,1,2,0,2,2,2,1,1,1,1,0,2,0]

Expansion in base (n*Pi^n + 1) of 1-frac(x) :
[0,3,5,0,3,1,2,2,0,0,0,1,1,2,0,1,0,1,0,2,2,0,2,2,0,2,0,2,1,0,0,0,0,2,3,0,2,1,0,0,0,2,0,2,3,0,1,1,0,2,2,0,2,1,2,0,0,0,1,0,0,1,2,0,1,2,2,2,2,1,2,2,3,0,1,1,0,0,2,0,2,0,2,2,2,1,1,1,2,2,3,0,1,0,1,2,0,1,1,0,1,1,0,1,2,0,1,2,0,3,0,0,2,1,2,0,0,2,2,0,0,1,2,0,2,1,2,0,2]

Expansion in base (n*2^n - 1) of 1-frac(x) :
[0,0,5,2,2,0,0,1,0,0,0,0,2,0,0,0,2,0,0,0,0,0,1,1,0,0,0,0,0,1,1,1,1,0,1,1,1,0,1,0,0,1,1,0,0,1,0,0,0,1,0,0,1,0,1,0,1,1,1,0,0,0,1,0,1,0,0,0,1,1,1,1,1,0,1,1,0,0,1,1,1,0,1,0,0,0,0,0,2,0,0,0,0,0,1,0,1,1,0,1,0,0,0,1,1,1,0,0,1,0,1,0,0,1,0,0,0,0,1,0,1,1,0,1,0,0,0,0,0,1,1,0,0,1,0,1,0,0,1,1,1,0,0,0,0,1,1,0,0,1,0,1,0,0,0,1,1,1,0,0,0,1,0,1,0,0,0,1,2,0,0,0,0,0,0,0,0,1,1,0,1,0,1,1,0,1,1,1,1,0,0,1,0,1,0,0,0]

Expansion in base (n*2^n + 1) of 1-frac(x) :
[0,2,2,2,1,1,0,1,0,2,0,0,1,0,0,2,0,0,0,0,0,0,0,1,0,0,0,0,0,1,1,1,0,1,0,1,0,1,1,2,0,0,0,0,1,1,1,0,0,0,0,1,0,0,1,1,1,0,0,0,1,1,1,0,0,1,1,1,0,1,1,0,1,0,0,1,0,1,0,0,1,1,0,0,1,1,0,0,1,0,1,0,1,0,0,0,1,1,0,1,1,0,1,0,0,0,0,1,1,0,0,0,0,0,0,1,0,1,1,1,1,1,0,1,0,0,1,0,0,1,1,0,0,0,0,0,0,1,1,1,0,1,0,0,0,1,1,0,1,2,0,0,0,0,0,0,1,

0,1,1,0,0,1,0,1,1,0,1,0,0,0,1,1,0,1,0,1,1,0,0,1,0,0,0,0,0,0,0,0,1,0,0,1
]

Expansion in base (n*exp(n) - 1) of 1-frac(x) :
[0,1,4,3,3,1,0,2,1,0,2,1,2,2,1,2,1,1,2,1,1,1,1,1,1,0,2,1,1,2,1,2,0,1,2,
0,0,0,0,0,2,1,0,0,2,1,2,1,0,1,1,0,1,0,0,1,1,1,0,1,1,2,1,2,1,1,2,0,0,2,0
,0,2,0,2,0,1,0,1,2,1,1,1,1,2,0,1,2,0,0,0,1,1,0,0,0,1,2,0,0,0,2,0,1,0,2,
1,2,1,1,2,0,1,0,2,1,2,0,1,2,1,0,2,0,1,0,2,1,1,1,2,1,2,1,0,0,1,1,2,0,2,0
,2,1,1,0,1,0]

Expansion in base (n*exp(n) + 1) of 1-frac(x) :
[0,3,2,2,1,0,2,0,2,1,2,0,0,2,1,0,2,0,1,0,0,1,2,0,2,1,0,0,2,0,0,0,0,2,1,
1,0,2,1,2,0,1,2,0,1,1,2,1,0,2,0,2,1,1,2,2,0,0,2,1,0,2,0,0,0,1,1,1,1,0,1
,0,0,1,2,1,1,2,1,2,0,0,0,2,1,1,0,1,2,0,2,1,1,1,2,0,0,0,1,1,0,1,1,2,1,1,
2,1,1,2,1,1,2,1,1,0,1,0,1,2,0,0,0,0,0,2,0,0,0,2,1,2,0,0,0,0,0,0,0,0,0,2
,0,0,0,1,0,1]

Expansion in base (n*10^n - 1) of 1-frac(x) :
[0,8,14,10,5,7,3,7,2,1,0,4,9,9,7,8,2,9,7,6,4,8,10,1,8,0,9,0,7,1,10,2,3,
9,2,7,1,7,0,9,2,2,3,3,6,5,9,2,4,0,4,2,9,3,2,4,2,3,1,3,3,7,0,4,2]

Expansion in base (n*10^n + 1) of 1-frac(x) :
[0,10,10,13,5,11,2,4,2,6,1,8,7,5,3,5,0,9,5,0,6,1,4,2,5,1,4,5,10,1,10,2,
6,1,1,8,4,0,0,8,5,5,4,1,8,3,3,6,3,7,1,10,1,5,1,4,6,5,1,6,1,7,10,1,0]

Expansion in base (n*exp(2*Pi*n) - 1) of 1/(1-frac(x)) :
[1,20,530,378,163,325,617,521,451,363,86,72,340,343,498,18,44,441,175,2
94,215,414,65,522]

Expansion in base (n*exp(2*Pi*n) + 1) of 1/(1-frac(x)) :
[1,20,610,381,461,350,427,522,508,177,128,261,97,92,114,278,531,71,106,
329,311,326,1,325]

Expansion in base (n*exp(Pi*n) - 1) of 1/(1-frac(x)) :
[1,0,40,34,11,23,16,20,25,16,16,1,19,0,17,2,10,13,5,22,11,2,19,11,10,22
,20,10,5,9,15,5,1,15,13,11,16,16,22,17,1,1,2,15,4,1,12]

Expansion in base (n*exp(Pi*n) + 1) of 1/(1-frac(x)) :
[1,0,41,4,28,15,26,23,5,11,4,24,21,6,15,11,21,16,16,16,16,4,11,4,4,16,1
1,5,19,4,6,10,19,19,1,1,8,2,3,0,5,23,5,23,6,0,16]

Expansion in base (n*Pi^n - 1) of 1/(1-frac(x)) :
[1,0,0,3,1,3,2,2,1,0,2,0,1,1,0,0,0,0,1,2,2,0,1,0,1,0,0,1,0,2,3,0,2,1,1,
3,0,0,3,0,0,2,1,3,0,1,0,0,1,2,1,2,2,2,2,1,1,1,0,2,1,0,0,1,2,1,2,1,2,1,2
,0,1,1,0,1,2,1,0,0,1,0,0,0,2,1,1,2,1,0,2,2,0,1,2,3,0,0,2,0,0,0,2,1,0,3,
0,1,1,2,1,0,2,0,1,2,2,2,2,2,0,0,3,0,1,0,0,1,0]

Expansion in base (n*Pi^n + 1) of 1/(1-frac(x)) :
[1,0,0,3,2,3,0,1,1,1,0,1,2,2,0,0,2,0,0,0,3,0,1,0,1,3,0,1,1,1,0,1,2,2,2,
2,1,1,1,2,0,1,2,1,2,2,1,2,0,2,1,1,0,1,1,1,1,3,0,1,0,1,0,1,1,2,3,0,0,1,1
,2,1,3,0,1,2,0,3,0,0,0,0,3,0,0,0,2,0,2,0,2,2,0,2,0,2,1,2,2,1,2,2,2,2,1,
3,0,1,2,0,2,2,1,1,2,2,0,1,1,1,2,2,0,2,2,0,0,2]

Expansion in base (n*2^n - 1) of 1/(1-frac(x)) :
[1,0,0,0,2,0,1,2,0,0,1,0,0,1,1,1,1,1,0,2,0,0,0,1,0,1,0,0,1,1,0,1,1,0,0,
0,0,0,1,0,1,1,0,1,0,2,0,0,0,0,0,2,0,0,0,0,0,1,1,0,0,0,0,1,0,1,0,0,0,1,0
,1,0,0,0,1,1,0,0,0,1,1,1,1,0,0,1,0,0,0,0,1,1,1,0,0,0,0,1,0,1,1,0,0,1,1,
0,1,1,1,0,1,1,0,1,0,1,1,1,0,0,1,0,0,1,1,1,0,0,0,1,1,0,0,0,1,1,1,1,1,1,0

,1,1,0,0,1,0,0,0,1,1,0,0,0,0,1,0,0,0,1,0,0,0,1,1,0,0,1,0,1,1,1,1,1,1,0,
0,1,1,1,0,0,0,0,1,0,1,0,0,0,1,0,0,1,1,0,0,1,0,1,1,1,1,0,0,1,0,1,0,1,0,0
]

Expansion in base (n*2^n + 1) of 1/(1-frac(x)) :
[1,0,0,1,0,0,0,1,0,0,2,0,0,0,0,2,0,0,0,0,1,0,0,1,0,1,0,1,0,0,1,1,1,1,1,
1,1,1,1,0,1,0,0,1,1,0,1,1,0,0,1,0,1,0,1,0,0,0,1,0,1,1,0,1,0,1,1,1,1,1,1
,1,0,1,0,0,1,1,1,0,1,0,0,2,0,0,0,0,0,1,0,1,1,0,1,0,1,0,1,0,1,1,1,1,1,1,
1,0,0,0,1,1,0,1,0,1,1,1,1,0,1,1,0,1,1,1,0,1,1,0,0,0,0,1,0,0,1,0,1,0,0,1
,0,0,1,0,1,1,1,1,0,1,1,0,1,1,0,1,0,1,1,1,1,0,1,0,1,1,1,1,0,0,1,0,0,0,1,
1,0,1,1,0,0,1,1,1,1,1,1,1,1,0,0,0,0,0,0,0,1,0,1,0,1,1,0,0,1,1,0,1,1,1,1
]

Expansion in base (n*exp(n) - 1) of 1/(1-frac(x)) :
[1,0,0,2,0,2,1,2,0,1,2,1,1,0,0,1,0,1,0,2,1,1,1,0,2,0,2,0,2,0,0,2,0,2,1,
1,0,1,0,0,2,0,1,2,1,0,0,1,2,1,1,1,1,1,2,1,0,2,1,2,0,1,1,0,2,0,2,1,0,0,1
,1,0,1,0,1,1,1,1,0,2,0,1,0,1,1,0,1,2,1,1,1,0,1,1,2,1,0,0,1,0,2,0,0,2,1,
0,0,2,1,1,2,1,0,1,0,1,0,2,1,0,1,1,0,2,1,1,1,0,1,1,1,1,0,1,0,0,1,1,2,0,1
,1,2,0,0,1,0]

Expansion in base (n*exp(n) + 1) of 1/(1-frac(x)) :
[1,0,0,2,1,1,2,0,1,1,2,1,1,2,0,1,2,0,1,1,2,2,0,1,1,0,0,1,0,0,1,0,1,1,0,
1,2,0,1,2,0,2,0,1,0,2,0,2,1,2,1,2,1,0,1,1,1,2,0,2,0,0,2,1,2,1,0,1,1,1,1
,1,0,2,0,0,1,0,1,1,1,0,2,0,1,1,2,1,1,2,1,2,0,1,2,0,1,2,1,0,0,0,2,1,1,1,
1,1,0,0,1,0,0,2,1,0,1,0,2,0,0,2,1,1,0,0,2,0,2,1,0,1,1,1,0,2,1,2,0,0,2,0
,1,2,0,1,0,2]

Expansion in base (n*10^n - 1) of 1/(1-frac(x)) :
[1,0,7,8,12,10,4,9,4,1,7,2,6,2,5,7,3,8,4,10,3,6,5,2,7,2,7,2,6,6,6,7,6,4
,7,2,2,5,0,7,9,9,7,1,10,0,2,3,8,5,9,5,10,0,1,1,3,2,7,0,9,2,6,9,6]

Expansion in base (n*10^n + 1) of 1/(1-frac(x)) :
[1,0,7,11,1,1,1,4,9,3,9,9,9,3,3,5,4,7,9,7,4,7,9,8,4,4,1,2,4,3,0,1,9,2,1
,4,1,8,8,6,3,3,7,4,5,4,3,8,5,9,0,7,6,1,7,9,3,2,4,7,4,9,2,1,7]

Expansion in base (n^2*exp(2*Pi*n) - 1) of x :
[1,19,1582,982,632,125,614,714,88,466,43,277,121,290,332,51,102,266,17,
438,98,361,78,369]

Expansion in base (n^2*exp(2*Pi*n) + 1) of x :
[1,19,1734,997,224,322,190,128,386,288,131,178,308,353,34,240,226,517,1
48,222,119,459,465,465]

Expansion in base (n^2*exp(Pi*n) - 1) of x :
[1,0,78,49,23,13,2,29,24,16,6,11,2,25,4,21,19,9,6,21,17,22,6,11,12,0,9,
11,6,6,19,13,16,4,15,12,20,14,1,2,8,6,19,12,2,18,18]

Expansion in base (n^2*exp(Pi*n) + 1) of x :
[1,0,79,12,31,26,20,17,7,4,20,26,13,19,15,11,15,22,18,17,11,25,7,8,20,1
1,22,6,14,24,1,4,0,20,17,19,20,22,14,0,7,18,18,17,11,6,19]

Expansion in base (n^2*Pi^n - 1) of x :
[1,0,1,2,2,0,1,1,2,0,1,3,2,3,0,1,3,0,0,3,1,0,2,0,1,1,1,3,0,1,2,1,1,0,3,
0,3,0,1,2,2,1,2,0,0,2,0,1,2,3,0,0,0,1,2,0,1,0,0,1,1,1,0,2,1,2,1,2,0,2,1
,1,0,1,0,0,0,0,2,1,2,1,2,0,1,0,2,0,1,2,0,2,2,0,0,1,1,1,1,2,2,1,1,3,0,0,
0,1,0,3,0,1,2,0,2,1,2,0,0,1,3,0,1,2,0,0,1,0,1]

Expansion in base (n^2*Pi^n + 1) of x :
[1,0,1,4,0,0,1,1,3,2,2,2,2,1,0,0,0,0,1,1,2,0,2,1,3,1,1,0,1,2,2,0,2,2,1,
1,0,3,0,0,3,0,2,0,1,3,0,2,2,1,2,1,0,1,1,1,1,3,0,1,2,3,0,1,2,1,2,2,2,2,2
,1,0,1,1,2,2,1,2,2,0,0,2,1,2,0,2,0,2,0,3,0,0,2,0,1,0,1,0,3,0,0,2,1,3,0,
1,2,1,1,2,2,2,1,0,1,2,0,0,0,0,1,2,2,1,0,2,2,0]

Expansion in base (n^2*2^n - 1) of x :
[1,0,0,2,1,0,2,0,2,0,1,0,0,1,0,1,0,1,1,0,0,1,2,0,0,1,0,0,0,0,1,1,1,0,1,
2,0,0,0,0,0,1,1,0,1,0,0,2,0,0,0,0,1,0,1,0,0,1,1,1,1,1,1,1,0,0,0,0,0,1,1
,0,1,0,0,0,0,1,0,1,1,1,0,0,1,1,1,0,1,2,0,0,0,0,1,0,1,1,0,1,1,1,0,1,1,1,
0,0,1,1,0,0,2,0,0,0,0,0,1,1,0,1,1,1,0,1,1,0,0,1,0,1,1,1,0,0,1,0,1,1,0,1
,1,1,0,1,0,0,0,1,0,0,0,1,0,1,1,0,0,1,1,0,0,0,0,1,1,1,1,0,1,0,1,2,0,0,0,
0,0,1,0,0,1,1,1,0,1,1,0,0,1,0,1,1,0,1,1,1,1,0,0,0,1,1,0,1,1,0,0,1,0,0,0
]

Expansion in base (n^2*2^n + 1) of x :
[1,0,0,2,3,0,2,2,0,1,1,0,1,0,1,0,0,1,2,0,0,0,1,1,0,1,0,1,0,1,1,1,2,0,0,
0,0,0,0,1,0,0,0,1,1,1,1,0,0,0,1,1,1,0,0,0,1,1,1,1,1,1,0,1,0,1,1,0,0,1,0
,0,1,1,1,1,0,1,0,0,1,0,1,1,1,1,1,1,1,0,1,0,1,0,0,1,1,0,1,2,0,0,0,0,0,1,
0,1,0,1,0,2,0,0,0,0,0,1,0,1,1,0,0,1,0,0,0,1,1,1,0,0,1,0,2,0,0,0,0,0,1,1
,0,1,1,0,1,0,0,0,0,0,1,1,1,0,1,0,1,1,0,1,0,0,0,1,2,0,0,0,0,0,1,0,1,0,0,
0,0,1,1,1,0,1,1,0,1,2,0,0,0,0,0,1,0,0,1,0,1,0,0,0,1,1,1,1,0,1,1,1,1,1,0
]

Expansion in base (n^2*exp(n) - 1) of x :
[1,0,0,6,1,3,0,0,3,0,3,0,1,2,1,1,0,0,0,2,1,0,1,1,2,0,2,2,1,0,2,2,1,1,1,
2,1,1,1,0,2,0,1,1,2,1,1,2,1,2,0,0,1,0,2,0,0,0,1,0,1,0,2,1,0,1,1,0,1,0,1
,1,0,0,0,2,1,1,0,0,2,0,1,0,0,1,1,0,0,1,2,0,0,0,2,0,2,0,0,2,0,2,0,0,1,1,
0,1,1,0,2,0,1,0,1,2,1,0,0,0,1,0,1,2,1,0,1,0,2,1,1,1,0,0,0,1,2,1,1,1,0,1
,0,1,1,1,1,0]

Expansion in base (n^2*exp(n) + 1) of x :
[1,0,1,1,1,2,2,3,0,3,0,1,1,1,1,1,1,0,2,0,0,1,2,2,2,0,0,0,2,1,2,1,1,1,2,
1,0,0,0,1,1,1,1,2,0,2,1,0,1,0,0,0,0,2,1,0,2,1,0,0,1,0,1,2,1,0,2,0,1,0,1
,1,1,1,0,0,2,1,1,1,1,1,2,0,2,1,0,0,0,2,1,0,2,0,0,0,1,1,1,1,2,0,0,0,0,1,
1,1,0,1,2,0,0,1,2,0,1,0,0,0,1,0,0,1,1,0,2,0,0,0,1,2,0,0,0,1,1,0,1,0,2,1
,0,2,1,0,0,2]

Expansion in base (n^2*10^n - 1) of x :
[1,0,14,14,2,11,7,5,7,6,10,11,4,4,9,4,3,1,1,8,5,10,6,8,7,3,3,9,6,4,4,0,
7,9,7,3,9,5,1,3,6,9,0,0,3,9,7,9,9,5,10,3,4,3,7,1,9,7,1,2,4,3,4,1,10]

Expansion in base (n^2*10^n + 1) of x :
[1,0,14,20,8,10,10,7,3,6,10,3,6,10,5,0,8,5,6,4,4,8,4,8,9,4,1,5,9,2,0,9,
8,0,0,5,2,5,6,1,9,8,2,5,6,6,2,4,6,7,2,4,1,2,5,2,7,5,4,9,6,5,4,2,6]

Expansion in base (n^2*exp(2*Pi*n) - 1) of 1/x :
[0,515,980,815,693,349,388,507,141,429,496,512,315,34,246,607,329,245,3
24,580,254,41,191,38]

Expansion in base (n^2*exp(2*Pi*n) + 1) of 1/x :
[0,517,824,903,80,214,302,142,235,17,57,284,13,347,430,190,219,197,213,
166,401,77,59,474]

Expansion in base (n^2*exp(Pi*n) - 1) of 1/x :
[0,21,34,0,20,34,14,4,0,26,26,1,17,6,4,12,10,24,3,21,12,22,16,19,4,1,7,
10,5,9,2,13,4,12,9,21,20,24,8,21,15,21,20,23,4,18,21]

Expansion in base (n^2*exp(Pi*n) + 1) of 1/x :
[0,23,24,50,32,26,18,24,25,28,19,10,25,16,23,11,25,25,17,9,20,13,13,18,
24,5,9,9,4,1,9,4,12,23,19,13,17,18,10,17,7,12,20,22,20,10,3]

Expansion in base (n^2*Pi^n - 1) of 1/x :
[0,2,1,0,3,2,3,3,1,2,1,1,0,1,1,1,2,0,2,1,1,0,2,3,0,0,0,3,1,0,3,0,1,0,1,
1,2,1,1,2,2,0,1,0,0,0,3,0,0,0,2,0,0,1,2,1,2,2,2,0,3,0,1,2,1,2,1,2,0,2,1
,2,0,0,2,1,2,0,2,2,2,0,3,0,1,1,1,2,1,3,0,1,1,0,3,0,0,2,2,0,3,0,0,1,1,2,
2,0,0,0,0,1,1,2,2,1,1,2,1,2,3,0,1,2,1,1,0,2,2]

Expansion in base (n^2*Pi^n + 1) of 1/x :
[0,3,10,2,4,4,0,3,2,2,1,0,2,1,2,2,0,2,1,2,1,0,1,2,0,2,2,1,2,2,0,1,0,1,1
,1,1,0,1,2,2,3,0,1,0,2,0,2,0,1,2,1,1,2,0,0,1,1,2,2,2,1,2,0,0,0,1,2,0,3,
0,0,0,2,1,3,0,0,3,0,2,0,0,0,1,2,2,1,0,0,2,0,1,1,1,1,0,0,2,1,2,0,1,1,2,3
,0,0,2,1,2,3,0,0,1,0,0,2,1,1,0,0,2,1,2,0,0,1,1]

Expansion in base (n^2*2^n - 1) of 1/x :
[0,0,11,3,0,0,0,0,1,1,1,1,1,0,2,0,1,0,0,0,0,0,1,2,0,0,1,1,1,0,0,1,2,0,0
,0,0,0,1,1,1,0,1,0,0,0,1,1,0,1,1,1,0,0,0,0,0,1,1,0,1,1,0,0,1,0,0,1,1,1,
1,1,1,0,0,1,1,0,0,0,1,1,0,1,1,0,1,1,0,1,1,0,0,1,1,1,0,0,0,0,1,0,1,1,0,0
,0,1,2,0,0,0,0,1,0,1,0,0,0,0,0,1,0,1,0,0,1,0,1,1,0,1,1,0,0,0,0,1,0,1,0,
0,1,1,0,1,0,0,0,0,0,0,0,0,1,1,2,0,0,0,0,0,1,1,0,0,1,1,0,1,1,1,1,1,0,0,0
,0,0,0,0,1,1,1,1,0,0,1,0,1,1,1,1,0,0,0,1,0,0,1,0,0,0,2,0,0,0,0,0,0,0,1,
0]

Expansion in base (n^2*2^n + 1) of 1/x :
[0,2,5,3,2,2,2,0,0,2,0,0,2,0,0,1,1,1,0,1,1,1,1,0,0,1,1,0,2,0,0,0,1,1,1,
2,0,0,0,1,0,0,1,0,1,1,1,0,0,0,1,0,0,0,0,0,1,1,0,1,1,0,1,1,0,0,0,0,0,1,1
,0,1,0,0,0,0,1,1,0,1,1,0,0,0,0,1,0,0,1,0,0,0,1,1,0,0,1,0,0,1,0,0,0,1,0,
0,0,1,1,1,0,0,1,0,0,0,1,1,1,0,0,0,0,1,0,0,0,0,0,0,0,1,0,1,1,1,0,1,0,1,0
,0,1,0,0,0,0,1,1,0,1,1,0,1,0,1,1,1,0,1,1,1,1,0,1,1,1,1,0,1,1,0,0,1,0,1,
1,1,1,1,0,0,0,0,0,1,1,1,1,1,0,0,1,1,0,1,1,1,1,1,1,1,1,0,1,1,0,0,0,1,1,1
]

Expansion in base (n^2*exp(n) - 1) of 1/x :
[0,1,9,5,0,4,0,2,2,2,2,0,3,0,1,3,0,0,1,0,0,1,0,2,2,0,2,2,1,2,0,2,1,2,1,
0,1,0,1,0,1,2,0,1,0,0,0,1,0,2,1,2,1,1,0,1,0,0,2,0,0,1,1,2,1,0,2,0,1,0,0
,0,1,1,1,0,2,0,2,1,1,1,1,1,1,1,1,1,0,2,2,0,1,0,0,0,2,1,2,1,2,0,1,1,1,2,
0,1,2,0,1,2,1,2,1,2,0,2,0,0,2,1,0,0,2,2,0,0,0,2,0,1,2,2,0,0,1,0,2,0,1,0
,0,0,0,0,1,1]

Expansion in base (n^2*exp(n) + 1) of 1/x :
[0,3,5,1,2,3,3,1,2,2,0,2,0,1,0,2,1,0,2,0,0,2,2,1,0,1,1,1,0,1,2,1,0,1,1,
2,0,2,2,0,1,2,1,0,0,2,0,0,2,1,2,1,2,2,0,0,2,0,1,0,1,2,0,2,0,1,2,0,0,1,0
,0,1,1,0,1,0,0,0,0,1,1,2,0,0,1,0,0,2,0,1,0,2,0,2,0,0,1,1,0,1,0,2,1,2,1,
1,0,0,1,1,0,0,0,2,1,1,1,1,0,1,1,1,1,0,0,1,0,0,0,0,1,0,2,0,1,0,0,0,2,0,0
,2,1,1,2,1,1]

Expansion in base (n^2*10^n - 1) of 1/x :
[0,8,29,20,6,10,6,5,6,3,3,4,0,0,3,5,0,7,7,2,3,4,9,9,9,4,10,3,9,1,4,0,8,
9,4,5,2,8,6,4,3,8,5,6,9,7,6,7,9,7,4,6,4,6,7,8,4,4,3,0,3,1,8,0,5]

Expansion in base (n^2*10^n + 1) of 1/x :
[0,10,22,7,10,3,10,6,8,0,5,9,4,8,0,9,6,8,5,0,8,10,10,7,3,3,4,2,0,3,8,0,
3,3,1,3,3,3,0,1,0,7,1,9,4,8,9,0,3,3,9,6,8,1,6,2,5,0,3,2,1,1,8,7,8]

Expansion in base (n^2*exp(2*Pi*n) - 1) of 1-frac(x) :
[0,514,1618,273,920,161,372,322,54,526,32,229,447,377,313,423,430,586,137,491,190,301,454,202]

Expansion in base (n^2*exp(2*Pi*n) + 1) of 1-frac(x) :
[0,516,1454,366,587,82,643,527,549,535,100,347,303,581,51,413,528,112,401,368,37,91,78,150]

Expansion in base (n^2*exp(Pi*n) - 1) of 1-frac(x) :
[0,21,31,10,13,27,21,31,10,19,1,15,9,9,11,6,4,0,21,10,2,12,21,12,11,23,16,16,3,7,2,8,8,1,16,19,23,18,14,21,23,10,20,2,9,5,0]

Expansion in base (n^2*exp(Pi*n) + 1) of 1-frac(x) :
[0,23,22,8,2,25,4,31,8,5,23,26,10,12,0,25,11,12,6,15,23,9,19,2,3,21,12,1,12,14,12,15,11,19,19,2,12,2,22,20,20,8,19,6,4,1,10]

Expansion in base (n^2*Pi^n - 1) of 1-frac(x) :
[0,2,1,0,1,2,3,0,2,2,2,0,2,1,1,0,0,3,1,0,0,1,2,2,0,0,1,0,2,1,1,2,1,2,3,0,1,0,1,1,1,0,2,0,0,1,3,0,2,2,2,1,0,1,2,1,2,0,1,2,2,0,0,0,2,2,2,2,0,0,0,3,0,1,1,1,0,0,2,2,2,0,3,0,0,2,2,1,0,3,0,1,0,0,2,3,0,1,1,3,0,0,2,0,1,1,2,1,0,2,2,0,1,0,2,1,2,3,0,1,2,1,0,0,0,0,0,3,0]

Expansion in base (n^2*Pi^n + 1) of 1-frac(x) :
[0,3,10,2,2,3,3,3,1,3,1,2,0,0,3,0,2,1,0,0,3,0,1,1,0,1,0,2,1,2,1,1,3,0,0,1,1,1,1,1,2,0,0,3,0,2,2,1,2,0,0,0,2,2,0,2,2,3,0,1,1,0,0,2,1,1,1,1,0,1,2,1,0,1,0,1,1,1,1,1,2,1,2,2,0,2,0,1,0,2,1,0,0,0,2,2,2,0,0,0,1,2,2,2,0,0,2,2,1,2,1,3,0,1,0,1,1,2,1,3,0,0,0,1,1,2,1,2,0]

Expansion in base (n^2*2^n - 1) of 1-frac(x) :
[0,0,11,2,3,1,1,2,1,1,2,0,1,0,0,1,1,1,1,0,1,1,1,2,0,0,0,0,0,1,1,1,0,1,1,1,1,1,0,0,1,1,0,0,0,1,1,0,0,0,0,2,0,0,0,0,0,1,0,1,1,2,0,0,0,0,1,0,1,0,1,1,1,0,0,1,0,0,1,0,0,1,1,0,1,0,0,0,0,1,1,1,0,0,0,0,2,0,0,0,0,0,1,1,1,0,1,0,1,1,1,0,2,0,0,0,0,0,0,1,0,1,1,0,1,0,0,0,0,2,0,0,0,0,0,1,0,0,0,0,1,0,1,0,1,0,1,0,0,0,0,0,0,0,1,1,1,0,0,1,1,0,1,0,1,0,1,0,1,1,0,1,1,1,1,0,1,1,1,0,0,1,1,1,0,1,0,1,0,0,1,1,1,0,1,0,0,0,0,1,1,0,1,1,0,0,1,0,1,1,1,0]

Expansion in base (n^2*2^n + 1) of 1-frac(x) :
[0,2,5,3,2,1,1,2,0,2,1,0,1,0,0,1,0,0,0,0,1,2,0,0,1,0,0,1,1,1,1,0,0,0,1,0,1,1,1,1,0,2,0,0,0,0,0,0,0,0,1,0,2,0,0,0,1,0,1,1,1,1,0,0,1,1,0,0,0,1,1,0,2,0,0,0,0,0,0,1,1,1,0,0,0,0,1,1,0,1,0,1,1,1,1,1,0,0,0,0,1,1,0,1,1,0,1,1,1,1,1,0,0,0,0,1,0,0,1,1,1,1,1,1,1,0,0,0,1,0,0,1,1,1,1,1,1,0,1,1,0,0,1,1,0,2,0,0,0,0,0,0,0,1,1,0,1,0,1,1,0,0,1,1,0,1,1,0,0,0,2,0,0,0,0,0,1,0,0,1,1,0,1,0,1,1,1,1,0,0,1,0,0,1,0,0,0,0,0,0,0,1,1,1,1,0,0,1,0,0,0,1,0,1,1,0,2,0,0,0,0,0,0,0,1]

Expansion in base (n^2*exp(n) - 1) of 1-frac(x) :
[0,1,9,4,4,3,2,1,1,2,1,0,1,1,1,3,0,1,0,0,2,0,2,0,2,2,0,1,1,1,1,1,1,2,0,2,0,1,0,0,0,1,0,0,0,1,0,1,0,1,2,1,0,0,2,2,0,0,1,0,1,1,2,1,1,1,1,0,2,1,1,2,0,2,0,0,2,1,1,0,0,0,0,2,0,0,0,0,0,2,1,2,1,2,0,2,1,0,0,0,1,0,0,1,2,1,2,1,1,1,2,1,1,1,1,0,0,1,1,0,0,0,0,1,1,0,0,1,1,0,2,1,1,0,2,0,2,1,1,1,0,1,1,2,0,0,1,2]

Expansion in base (n^2*exp(n) + 1) of 1-frac(x) :
[0,3,5,1,1,3,0,2,1,3,1,0,1,1,0,0,1,1,2,2,2,2,0,0,1,0,0,1,0,0,0,1,2,1,0,2,1,2,0,1,1,0,1,1,2,1,0,1,1,0,1,2,2,0,0,1,1,0,1,0,2,1,1,2,0,1,2,0,1,2,0,1,2,2,0,0,1,0,2,1,2,0,1,2,0,1,2,1,1,1,1,1,0,1,2,0,1,0,1,2,1,0,2,1,1,1,

2,0,2,1,0,0,2,0,2,1,2,0,1,2,0,2,1,2,0,2,1,0,1,2,0,1,1,2,1,0,0,1,1,0,1,1
,1,2,0,1,0,2]

Expansion in base (n^2*10^n - 1) of 1-frac(x) :
[0,8,29,8,9,12,7,1,12,2,9,1,9,11,0,4,7,10,1,3,2,0,10,4,4,5,5,7,6,4,0,4,
0,5,9,1,7,9,9,0,9,1,4,7,5,1,0,8,7,10,3,4,0,8,6,0,1,5,8,3,4,1,3,2,0]

Expansion in base (n^2*10^n + 1) of 1-frac(x) :
[0,10,21,18,0,7,12,1,2,7,3,2,2,2,9,7,0,0,10,9,4,5,6,4,1,10,1,0,3,5,1,9,
8,2,4,1,6,8,1,0,6,3,7,7,2,2,1,1,5,9,4,4,7,2,0,9,7,9,8,4,6,5,4,0,7]

Expansion in base (n^2*exp(2*Pi*n) - 1) of 1/(1-frac(x)) :
[1,20,1060,1134,653,793,78,290,495,552,121,44,279,561,16,533,376,545,55
5,123,204,471,360,502]

Expansion in base (n^2*exp(2*Pi*n) + 1) of 1/(1-frac(x)) :
[1,20,1220,1144,894,92,258,217,657,502,372,495,338,415,71,517,380,97,48
,197,509,587,129,559]

Expansion in base (n^2*exp(Pi*n) - 1) of 1/(1-frac(x)) :
[1,0,81,50,40,24,32,30,6,26,0,23,14,8,0,22,9,17,17,1,2,7,4,11,3,5,20,7,
21,12,16,6,5,20,19,7,16,15,7,0,2,15,15,15,15,20,22]

Expansion in base (n^2*exp(Pi*n) + 1) of 1/(1-frac(x)) :
[1,0,82,14,31,33,28,16,27,14,16,18,6,11,13,17,14,23,1,6,15,0,23,6,10,19
,18,16,8,20,13,11,9,18,20,7,2,9,3,2,7,19,4,13,18,14,15]

Expansion in base (n^2*Pi^n - 1) of 1/(1-frac(x)) :
[1,0,1,2,4,1,0,4,0,0,3,2,3,1,0,2,2,1,0,0,2,1,1,2,2,2,1,1,2,1,3,0,2,1,0,
1,1,2,1,0,0,1,1,2,0,1,3,0,2,0,2,2,1,0,1,0,0,1,2,2,1,2,2,0,2,0,0,0,2,1,1
,0,2,2,1,0,1,3,0,2,0,2,2,1,2,2,0,0,1,2,0,2,2,0,3,0,0,3,0,0,0,0,0,1,2,2,
0,0,3,0,1,0,0,2,0,0,1,0,2,0,0,3,0,1,1,2,2,2,2]

Expansion in base (n^2*Pi^n + 1) of 1/(1-frac(x)) :
[1,0,1,4,2,1,1,4,0,3,0,0,0,1,0,0,3,0,1,2,2,0,1,2,0,1,1,2,1,0,1,1,0,0,0,
0,1,2,2,0,1,1,0,2,0,0,2,2,1,2,2,0,1,1,1,0,2,1,2,1,0,1,1,1,2,2,3,0,1,1,0
,1,0,2,2,0,0,0,1,2,1,2,1,2,2,1,3,0,0,3,0,1,1,0,0,1,0,1,2,0,0,2,2,2,0,0,
0,2,1,2,0,0,1,0,0,0,0,0,0,2,2,0,2,0,1,2,3,0,0]

Expansion in base (n^2*2^n - 1) of 1/(1-frac(x)) :
[1,0,0,2,1,1,2,1,1,1,1,0,1,1,1,1,1,0,1,1,0,1,0,0,0,0,0,1,0,1,1,1,0,0,1,
0,0,1,1,1,1,1,1,0,0,0,0,0,1,0,0,1,1,0,1,1,1,1,0,1,0,0,0,0,1,1,1,1,0,0,1
,1,0,2,0,0,0,0,1,1,0,0,0,0,1,0,0,0,0,0,0,0,1,0,0,1,0,0,0,0,0,0,0,1,0,1,
0,0,0,1,0,0,1,1,1,1,1,1,1,0,1,1,0,1,1,1,0,0,1,0,0,1,0,1,1,1,1,0,0,1,1,1
,1,1,0,1,0,1,0,1,1,1,0,0,1,0,1,0,0,1,0,1,1,1,1,0,0,0,0,0,1,0,1,1,1,1,1,
0,1,1,0,1,0,0,1,0,1,0,1,1,0,0,0,0,1,0,0,1,0,1,0,0,1,0,1,0,1,1,0,1,1,0,0
]

Expansion in base (n^2*2^n + 1) of 1/(1-frac(x)) :
[1,0,0,3,0,1,0,0,1,1,0,2,0,2,0,1,0,1,0,1,0,1,1,1,0,0,1,1,0,1,1,1,0,1,0,
0,1,0,1,0,1,2,0,0,0,0,1,1,0,1,0,1,1,0,0,1,0,1,0,0,1,1,1,1,1,1,1,1,1,0,1
,1,0,2,0,0,0,0,0,2,0,0,0,0,0,0,1,0,1,0,0,0,1,0,0,1,0,0,1,1,0,1,1,0,0,1,
1,1,0,0,0,0,0,0,0,1,1,0,0,0,1,0,1,0,1,0,1,1,0,0,0,0,1,0,0,1,0,1,0,0,0,1
,1,1,1,0,1,1,1,1,0,1,0,0,1,0,1,0,0,0,0,1,0,1,0,1,1,1,1,1,1,1,0,0,0,1,0,0,
1,1,1,1,1,0,1,1,0,1,1,1,2,0,0,0,0,0,0,0,1,0,1,1,0,1,0,0,1,1,0,1,0,1,2,0
]

Expansion in base (n^2*exp(n) - 1) of 1/(1-frac(x)) :
[1,0,0,6,2,3,3,3,0,2,2,0,2,2,1,0,1,1,2,0,1,0,2,1,0,2,2,0,2,2,0,1,2,0,0,
1,1,1,2,1,0,2,0,0,1,2,0,1,2,1,0,1,1,1,0,1,2,0,1,0,2,1,1,0,2,1,2,0,1,0,1
,2,1,2,2,0,1,0,2,0,0,1,1,0,2,1,1,1,0,1,0,0,1,1,1,1,0,1,2,1,1,1,0,1,2,0,
0,1,2,2,0,0,0,2,1,0,1,1,2,1,0,0,0,1,0,0,2,1,1,1,1,0,0,2,0,0,2,1,1,2,0,0
,1,0,0,0,2,1]

Expansion in base (n^2*exp(n) + 1) of 1/(1-frac(x)) :
[1,0,1,1,2,3,3,0,3,0,0,1,2,1,0,2,1,2,0,0,0,2,1,2,1,1,1,2,2,1,2,1,1,2,0,
0,0,0,2,1,1,1,2,2,0,2,1,2,0,1,2,1,2,2,0,0,0,0,1,0,0,2,0,0,1,2,1,1,0,0,2
,2,0,0,2,1,2,0,0,0,1,0,1,1,2,2,0,0,0,2,1,0,0,0,2,1,1,1,2,1,0,0,2,0,1,0,
0,2,1,1,1,0,2,1,2,0,2,1,0,1,0,2,2,0,0,1,1,0,0,0,0,2,0,1,0,0,2,0,1,2,0,0
,2,0,1,0,2,0]

Expansion in base (n^2*10^n - 1) of 1/(1-frac(x)) :
[1,0,15,4,3,3,2,8,6,5,0,3,8,2,7,2,5,0,7,6,2,10,10,4,9,5,7,7,2,2,5,0,1,8
,3,7,5,1,7,9,7,0,9,0,8,9,10,2,9,6,1,2,7,0,1,1,0,5,9,1,6,5,8,7,8]

Expansion in base (n^2*10^n + 1) of 1/(1-frac(x)) :
[1,0,15,10,16,12,7,1,9,12,7,8,2,4,4,11,1,6,1,8,10,6,9,3,9,0,0,1,6,7,2,2
,2,0,6,1,9,9,6,3,2,3,3,0,6,6,2,6,4,6,7,1,10,1,0,5,4,1,5,6,7,9,6,8,4]

Expansion in base (n^3*exp(2*Pi*n) - 1) of x :
[1,19,3165,1140,890,407,276,415,342,366,398,505,218,388,308,121,216,633
,424,423,222,300,611,243]

Expansion in base (n^3*exp(2*Pi*n) + 1) of x :
[1,19,3469,1184,544,640,338,613,199,751,399,470,669,619,340,507,182,604
,247,547,505,179,245,591]

Expansion in base (n^3*exp(Pi*n) - 1) of x :
[1,0,157,70,25,20,5,32,26,27,29,3,6,17,19,22,3,9,5,20,18,20,19,17,17,8,
11,3,8,21,6,3,3,17,13,17,9,9,5,6,15,20,13,3,2,11,1]

Expansion in base (n^3*exp(Pi*n) + 1) of x :
[1,0,158,38,17,11,10,4,30,31,0,24,26,14,6,27,27,12,10,11,10,16,6,11,24,
10,3,8,3,12,11,20,0,23,9,7,10,8,0,11,22,3,21,12,23,22,1]

Expansion in base (n^3*Pi^n - 1) of x :
[1,0,2,7,0,3,4,3,2,3,2,1,2,0,1,0,1,2,1,1,2,2,0,1,2,1,3,0,1,1,0,0,1,0,1,
0,0,1,0,1,0,0,2,2,3,0,1,0,0,2,2,2,0,2,0,1,1,2,3,0,2,2,0,1,0,3,0,0,1,1,1
,2,1,2,2,0,3,0,1,1,1,3,0,0,0,2,1,1,2,1,0,2,1,1,0,1,0,0,0,0,1,1,3,0,1,2,
0,2,2,2,1,0,0,0,2,1,1,0,0,1,1,1,2,1,1,1,0,1,0]

Expansion in base (n^3*Pi^n + 1) of x :
[1,0,3,2,0,4,1,4,3,0,0,1,0,2,1,1,0,0,0,1,2,0,1,2,0,2,0,2,0,0,0,0,1,2,2,
2,2,0,0,1,2,0,0,1,1,2,0,3,0,0,2,0,3,0,0,3,1,0,0,0,3,0,0,1,2,2,0,1,0,1,2
,2,3,0,1,1,1,1,3,0,0,2,1,1,2,2,1,1,2,0,1,0,1,0,0,2,0,3,0,2,1,2,0,0,0,0,
1,2,3,0,1,2,0,3,0,2,0,2,2,0,1,2,0,3,0,0,0,2,2]

Expansion in base (n^3*2^n - 1) of x :
[1,0,0,6,4,3,3,0,2,1,2,1,0,1,1,0,0,1,0,0,1,0,0,2,0,1,0,1,1,1,1,1,0,1,0,
1,1,1,0,1,1,0,0,0,2,0,0,0,0,0,1,1,0,1,0,0,0,1,0,0,1,0,1,1,0,0,0,0,0,0,0
,0,1,0,0,1,0,0,1,0,1,0,0,1,1,1,0,0,0,0,0,1,0,2,0,0,0,0,1,1,0,1,2,0,0,0,
1,0,0,0,0,1,1,1,1,1,0,0,1,0,0,1,1,0,1,1,0,0,0,0,1,1,0,1,1,1,2,0,0,0,0,1
,0,1,1,1,1,1,0,0,0,1,0,0,1,1,0,1,0,0,1,1,0,1,0,1,1,1,0,2,0,0,0,0,0,1,0,
0,1,1,1,1,1,0,1,1,0,1,1,0,0,1,1,1,0,1,0,0,0,0,1,0,0,1,0,0,1,1,1,1,0,0,1
]

Expansion in base (n^3*2^n + 1) of x :
[1,0,1,2,4,0,0,0,2,2,0,0,2,0,0,0,0,1,0,1,1,1,1,1,1,1,0,0,0,2,0,0,0,1,2,
0,0,1,1,1,2,0,0,0,1,1,1,1,1,1,0,1,1,0,0,1,1,1,1,1,1,1,1,1,1,0,1,0,0,1,1
,0,0,1,1,1,0,0,1,0,1,1,0,1,1,0,1,1,0,2,0,0,0,0,0,0,0,0,1,1,0,0,1,1,0,0,
0,0,0,1,1,0,0,0,1,1,1,0,0,1,1,0,0,0,1,0,1,1,0,1,1,1,1,0,0,0,1,1,0,1,0,1
,1,0,1,1,1,0,2,0,0,0,0,0,0,1,0,1,1,0,1,1,0,1,1,0,0,0,0,1,1,0,0,0,0,0,0,
0,0,0,1,1,0,0,1,0,0,0,0,0,1,0,0,1,1,1,0,1,1,0,0,1,1,1,0,0,0,1,0,1,1,1,1
]

Expansion in base (n^3*exp(n) - 1) of x :
[1,0,1,8,6,1,3,0,0,2,3,1,0,2,0,1,1,0,2,2,1,2,3,0,0,2,0,1,2,1,1,2,2,2,2,
1,0,0,0,1,1,1,2,1,0,2,0,2,2,0,2,0,2,2,0,1,0,2,2,0,1,2,0,0,2,1,0,1,2,2,0
,0,2,2,0,1,0,0,1,1,1,1,2,2,0,0,0,1,1,0,2,0,1,0,1,0,1,0,0,0,0,0,2,0,1,2,
1,2,2,0,0,0,1,1,0,1,0,2,0,1,0,1,0,1,1,0,2,1,2,1,1,0,0,2,0,0,1,0,1,1,0,1
,1,2,0,1,0,1]

Expansion in base (n^3*exp(n) + 1) of x :
[1,0,2,4,0,1,4,0,2,1,3,1,2,2,0,0,3,0,2,2,1,0,2,0,0,1,0,2,1,2,1,0,2,1,0,
0,2,0,0,1,1,0,1,0,1,2,2,1,0,2,2,0,0,1,0,0,0,2,2,1,0,0,0,2,0,2,2,0,1,2,1
,1,0,2,0,1,2,0,1,1,1,2,1,1,2,0,2,0,1,2,1,1,2,1,2,1,1,2,0,0,1,2,0,1,2,1,
0,0,1,2,1,1,0,1,1,0,2,1,0,2,1,2,2,0,0,2,1,1,2,2,0,1,0,1,2,1,0,2,0,2,0,1
,0,0,2,2,0,1]

Expansion in base (n^3*10^n - 1) of x :
[1,0,29,8,9,11,12,4,0,0,10,5,4,5,2,0,4,0,1,10,8,2,10,8,6,4,4,7,0,8,0,6,
5,1,5,6,10,4,4,6,0,9,3,10,3,10,5,9,10,0,2,9,6,2,4,6,3,7,5,5,7,7,1,7,6]

Expansion in base (n^3*10^n + 1) of x :
[1,0,29,28,0,8,5,6,5,7,2,0,6,1,3,2,2,2,6,5,0,6,0,9,6,4,8,6,1,5,8,6,2,7,
9,5,10,6,9,7,6,5,10,3,1,0,6,6,7,2,4,2,5,4,2,7,5,6,9,6,3,2,5,3,8]

Expansion in base (n^3*exp(2*Pi*n) - 1) of 1/x :
[0,515,1961,639,1135,479,878,428,401,692,519,395,305,28,14,248,441,603,
499,284,9,586,125,359]

Expansion in base (n^3*exp(2*Pi*n) + 1) of 1/x :
[0,517,1649,901,1237,429,22,281,334,99,309,505,292,381,219,187,481,480,
164,280,170,380,304,440]

Expansion in base (n^3*exp(Pi*n) - 1) of 1/x :
[0,21,68,1,28,43,1,2,10,10,5,28,27,7,11,13,6,18,20,7,14,14,3,5,10,20,1,
19,24,17,1,13,3,10,5,2,17,14,14,2,14,13,20,17,16,18,19]

Expansion in base (n^3*exp(Pi*n) + 1) of 1/x :
[0,23,49,74,23,18,15,10,0,5,24,10,29,6,24,1,4,18,25,7,4,7,25,21,15,11,1
0,23,13,20,24,6,13,9,23,13,2,18,9,4,24,8,18,5,6,14,2]

Expansion in base (n^3*Pi^n - 1) of 1/x :
[0,2,2,1,6,4,1,0,1,2,1,3,0,1,0,2,3,2,2,3,2,0,3,0,0,3,1,2,2,3,0,2,1,3,0,
1,0,2,1,3,1,0,3,0,2,3,1,0,1,0,2,0,1,0,2,2,0,2,1,0,2,1,2,0,1,1,1,0,0,0,1
,2,0,0,1,2,1,1,2,2,1,0,1,0,1,3,0,1,1,1,2,1,0,1,1,0,1,2,1,0,0,1,2,1,2,0,
0,3,0,0,2,0,0,0,2,0,0,0,1,0,1,1,3,0,2,0,2,2,1]

Expansion in base (n^3*Pi^n + 1) of 1/x :
[0,3,20,8,4,5,1,1,2,2,3,2,0,0,0,2,0,1,1,0,2,0,2,1,0,1,1,2,2,1,0,1,0,2,3
,0,1,0,1,0,0,2,0,0,1,0,1,3,0,1,1,1,1,2,0,0,1,0,0,0,1,0,0,1,1,2,0,2,1,2,
1,0,0,0,1,0,2,1,3,0,2,1,1,1,0,1,1,1,1,2,2,2,3,0,0,1,2,2,0,0,0,1,2,0,1,1
,2,1,1,0,1,1,2,2,1,0,1,0,1,3,0,1,2,1,2,2,0,1,1]

Expansion in base (n^3*2^n - 1) of 1/x :
**[0,0,23,1,0,2,3,1,0,1,0,2,0,0,1,1,2,0,1,0,0,0,0,2,0,1,0,0,1,1,1,1,1,0,1
,1,1,1,0,1,1,1,0,1,0,0,0,0,1,1,0,1,1,0,1,0,1,1,0,0,1,1,0,0,1,0,0,0,1,1,
1,1,0,0,1,0,1,0,1,0,0,0,0,1,1,0,1,0,0,0,1,1,1,1,1,1,0,1,1,1,1,1,0,1,0,1
,0,0,1,1,1,0,1,0,1,0,0,0,1,1,1,1,1,1,0,1,0,0,0,0,1,0,0,1,0,0,1,1,1,0,0,
1,0,0,0,0,0,1,1,1,0,1,0,0,1,0,1,0,1,0,1,0,0,0,1,1,0,1,0,1,0,1,0,1,1,1,0
,1,1,0,1,1,1,0,1,0,1,0,0,1,1,1,1,0,0,1,0,1,0,1,0,1,0,0,1,1,0,0,0,1,0,0,
0]**

Expansion in base (n^3*2^n + 1) of 1/x :
**[0,2,11,5,2,1,0,2,2,1,0,2,0,1,0,2,0,0,2,0,0,1,0,0,2,0,1,0,1,1,1,1,0,1,1
,0,1,1,1,0,1,1,0,1,0,1,0,1,0,0,1,1,0,1,1,1,0,1,0,1,0,1,0,1,0,1,1,1,0,0,
0,0,0,2,0,0,0,1,1,0,0,1,0,1,0,0,0,1,0,1,1,0,1,0,2,0,0,0,1,0,0,0,0,1,0,0
,1,1,1,1,1,0,1,1,0,0,1,0,1,1,1,0,2,0,0,0,0,1,0,1,0,0,1,1,0,0,1,0,1,1,0,
1,0,0,0,0,1,1,1,0,1,0,1,0,1,1,0,1,1,0,0,0,1,1,1,1,0,1,1,0,1,0,1,0,0,1,1
,0,0,1,1,1,1,1,0,1,0,1,0,0,2,0,0,0,0,1,0,0,0,1,0,0,0,0,0,1,0,1,1,1,0,0,
1]**

Expansion in base (n^3*exp(n) - 1) of 1/x :
**[0,1,19,5,3,1,4,1,1,0,3,1,2,3,0,0,1,0,3,0,2,0,2,1,1,1,1,1,0,2,0,2,0,1,1
,2,2,1,1,0,0,2,1,0,2,1,0,2,1,1,0,0,0,2,1,2,1,1,1,0,0,2,1,0,0,1,0,0,2,1,
0,0,0,0,2,2,0,1,0,0,1,0,2,0,1,2,1,2,1,1,0,1,2,0,0,2,1,2,2,0,0,0,0,0,0,1
,0,1,2,1,0,0,2,0,0,2,0,0,1,1,1,0,2,0,2,2,0,1,1,0,0,2,1,2,2,0,0,1,2,1,1,
0,2,2,0,0,2,0]**

Expansion in base (n^3*exp(n) + 1) of 1/x :
**[0,3,10,4,5,2,1,3,2,2,1,0,0,0,2,0,1,0,2,1,3,0,0,2,1,0,0,1,0,0,1,2,2,1,2
,2,1,1,0,0,2,0,2,1,0,0,2,1,2,0,1,0,2,1,1,1,0,1,1,2,0,1,0,1,1,2,2,1,0,0,
0,0,1,0,0,2,1,0,0,1,1,1,2,1,0,0,2,1,2,0,0,0,0,0,1,2,1,1,1,0,1,0,0,2,0,2
,0,2,0,1,2,0,0,2,1,0,0,0,1,1,0,2,1,0,2,0,2,1,0,0,2,0,1,0,0,2,1,0,2,1,0,
1,0,0,2,1,1,1]**

Expansion in base (n^3*10^n - 1) of 1/x :
**[0,8,59,27,1,11,12,9,10,3,4,1,6,12,5,8,6,11,9,7,5,2,7,4,8,1,10,7,9,5,0,
0,6,7,10,4,4,8,10,5,2,0,4,7,6,2,6,6,8,8,10,0,8,8,7,0,4,4,5,4,9,9,4,0,0]**

Expansion in base (n^3*10^n + 1) of 1/x :
**[0,10,44,22,17,5,5,6,12,5,11,7,0,4,4,4,5,5,0,2,5,2,5,10,2,10,6,1,0,8,1,
9,2,5,7,0,8,7,3,7,5,8,9,9,2,5,7,3,2,7,1,3,7,5,4,8,6,0,3,3,1,1,1,1,2]**

Expansion in base (n^3*exp(2*Pi*n) - 1) of 1-frac(x) :
**[0,514,3236,821,1142,151,478,340,222,488,416,467,427,598,629,475,425,19
9,423,185,607,90,576,541]**

Expansion in base (n^3*exp(2*Pi*n) + 1) of 1-frac(x) :
**[0,516,2908,1099,1079,86,224,170,412,758,710,242,88,23,259,201,234,218,
95,359,606,588,218,177]**

Expansion in base (n^3*exp(Pi*n) - 1) of 1-frac(x) :
**[0,21,62,31,0,9,8,10,10,3,20,1,26,13,25,21,13,13,27,8,7,23,14,1,23,20,6
,1,1,20,19,6,8,17,18,1,21,23,12,12,15,17,7,19,20,1,15]**

Expansion in base (n^3*exp(Pi*n) + 1) of 1-frac(x) :
**[0,23,44,24,10,35,14,8,29,14,11,11,9,7,24,26,27,26,26,12,21,5,10,10,20,
0,21,21,11,11,17,7,25,3,10,21,17,24,9,2,13,17,9,0,15,0,2]**

Expansion in base (n^3*Pi^n - 1) of 1-frac(x) :
[0,2,2,0,6,1,0,3,0,2,4,1,0,2,2,1,0,2,3,2,0,1,2,1,1,3,1,0,2,2,0,0,1,1,1,

3,0,2,1,0,0,1,2,1,0,2,0,0,0,2,0,3,0,2,1,1,0,1,1,0,1,1,2,2,0,1,1,1,1,3,0
,1,3,0,1,0,2,0,2,1,3,0,2,1,2,1,1,1,0,2,2,2,2,1,1,1,2,1,2,2,2,0,0,0,1,1,
0,1,1,0,2,3,0,2,0,0,0,3,0,0,2,0,1,0,3,0,0,1,2]

Expansion in base (n^3*Pi^n + 1) of 1-frac(x) :
[0,3,20,7,3,5,1,2,2,0,2,1,1,3,1,1,3,2,2,3,2,0,0,2,0,3,0,1,0,2,1,1,3,0,0
,0,2,0,2,0,0,0,1,0,2,3,1,0,0,3,0,2,2,2,1,2,0,2,1,2,2,1,3,0,3,0,0,1,1,0,
2,2,1,1,0,1,3,0,0,1,0,0,2,0,3,0,2,0,0,0,0,0,2,0,2,2,2,0,0,0,0,2,0,2,0,2
,0,1,1,2,1,2,1,2,0,1,1,0,0,0,1,1,3,0,0,0,0,0,2]

Expansion in base (n^3*2^n - 1) of 1-frac(x) :
[0,0,23,0,4,2,0,2,1,0,2,1,1,1,1,0,0,1,1,1,1,1,1,0,1,0,0,1,0,0,0,1,0,0,1
,0,0,0,1,0,0,1,0,0,0,0,1,1,0,1,0,1,2,0,0,0,1,0,0,0,0,0,1,1,0,1,0,1,0,0,
0,0,1,1,1,0,0,0,0,0,0,1,0,1,1,0,1,0,0,0,0,1,0,1,1,1,1,0,1,0,0,1,1,0,0,1
,0,0,1,0,0,1,1,1,1,1,1,0,0,0,1,2,0,0,0,0,0,1,0,0,0,1,1,1,0,1,1,0,0,0,0,
0,0,1,0,1,1,1,1,0,0,0,0,0,1,1,2,0,0,0,0,0,0,1,1,0,0,0,0,0,1,0,0,0,0,1,1
,0,0,0,0,1,0,1,0,1,0,1,0,0,1,0,0,0,0,1,0,1,1,0,1,1,0,1,0,0,0,0,0,1,1,0,
1]

Expansion in base (n^3*2^n + 1) of 1-frac(x) :
[0,2,11,5,0,3,1,1,1,0,0,2,0,0,0,1,1,1,1,0,2,0,1,1,0,0,1,0,2,0,0,0,0,1,0
,1,1,1,0,1,0,0,0,0,1,1,1,0,1,1,0,2,0,0,0,1,1,1,0,1,0,1,0,0,0,1,0,0,2,0,
0,0,0,0,1,1,1,0,0,2,0,0,0,0,0,1,0,0,0,0,1,0,0,0,1,0,1,0,1,0,0,1,0,0,1,1
,2,0,0,0,0,1,1,0,1,0,0,1,0,0,1,1,0,1,0,1,1,0,1,0,1,0,1,0,0,0,0,1,0,0,1,
1,0,0,0,1,0,0,0,0,1,0,0,1,1,1,0,0,1,0,2,0,0,0,0,0,1,1,2,0,0,0,0,0,1,1,0
,0,1,1,1,1,0,1,0,1,1,0,0,0,0,0,1,1,1,0,0,1,0,0,1,0,0,0,1,1,2,0,0,0,0,0,
0]

Expansion in base (n^3*exp(n) - 1) of 1-frac(x) :
[0,1,19,4,5,2,3,1,0,2,3,1,1,1,2,1,0,0,2,2,1,0,0,0,2,2,0,2,1,2,2,0,1,2,0
,0,1,0,0,0,2,0,2,2,1,1,1,1,1,0,0,2,0,1,0,0,1,1,2,0,2,0,2,2,0,1,2,1,0,1,
1,2,0,2,0,0,0,1,1,1,2,1,2,2,0,0,0,0,2,0,0,0,2,1,2,1,1,0,0,2,0,2,0,1,1,2
,0,2,0,0,1,2,0,0,2,0,0,0,1,1,2,2,0,1,1,0,0,2,1,0,0,0,0,1,2,1,1,0,2,1,0,
2,1,0,0,1,1,0]

Expansion in base (n^3*exp(n) + 1) of 1-frac(x) :
[0,3,10,4,0,4,0,1,2,0,2,3,2,0,0,0,2,1,0,2,1,1,0,0,0,1,1,2,2,1,0,0,0,0,0
,0,1,0,2,0,2,1,1,1,2,0,2,1,0,0,1,1,2,0,0,0,1,1,1,1,0,1,1,0,2,2,0,2,2,0,
2,2,0,1,0,2,1,0,1,0,1,0,1,2,1,0,0,1,0,1,2,1,0,0,0,2,0,2,0,1,2,2,0,0,0,0
,2,1,2,0,0,2,0,0,1,2,2,0,1,1,1,0,0,0,2,0,1,2,1,1,2,1,0,0,1,0,2,1,2,1,1,
2,1,0,1,2,0,0]

Expansion in base (n^3*10^n - 1) of 1-frac(x) :
[0,8,58,25,15,9,4,5,6,8,11,0,7,5,1,2,11,5,11,6,6,2,1,9,0,1,7,10,4,4,4,1
,3,5,6,4,6,3,4,3,8,8,5,2,5,0,3,7,1,6,4,8,4,8,10,5,0,1,5,4,9,4,7,1,1]

Expansion in base (n^3*10^n + 1) of 1-frac(x) :
[0,10,43,20,15,0,16,13,11,5,12,9,0,11,3,1,4,0,7,2,5,4,4,1,4,1,9,1,5,5,0
,0,4,10,9,4,6,3,0,2,5,2,2,4,10,3,7,6,1,7,10,0,5,10,5,4,5,8,7,4,1,5,5,3,
10]

Expansion in base (n^3*exp(2*Pi*n) - 1) of 1/(1-frac(x)) :
[1,20,2121,1596,977,606,160,145,22,12,691,178,486,525,583,141,292,379,4
79,12,355,400,445,444]

Expansion in base (n^3*exp(2*Pi*n) + 1) of 1/(1-frac(x)) :
[1,20,2441,1627,684,926,655,583,258,453,162,290,554,371,332,67,535,501,
58,489,289,149,98,195]

Expansion in base (n^3*exp(Pi*n) - 1) of 1/(1-frac(x)) :
[1,0,163,74,39,40,38,1,5,30,30,24,28,23,5,23,9,13,1,1,1,14,17,17,2,16,12,2,5,13,7,3,21,21,5,1,18,23,20,17,20,4,16,22,13,3,9]

Expansion in base (n^3*exp(Pi*n) + 1) of 1/(1-frac(x)) :
[1,0,164,44,18,2,10,8,10,6,28,5,4,14,28,15,3,27,15,7,4,9,21,7,15,18,19,19,11,3,8,3,20,13,7,9,0,24,21,10,14,13,4,4,14,15,14]

Expansion in base (n^3*Pi^n - 1) of 1/(1-frac(x)) :
[1,0,2,8,1,4,3,1,3,1,0,1,0,1,1,1,0,3,1,0,2,3,0,0,1,0,0,2,2,0,0,1,1,1,0,0,2,2,2,0,2,2,2,3,0,1,0,2,2,0,3,0,0,1,2,2,0,1,0,2,0,0,0,1,2,1,0,0,1,0,0,2,2,2,0,2,1,0,1,3,0,0,0,1,2,1,1,0,1,2,2,0,0,0,0,2,0,0,1,2,3,0,1,2,0,2,2,1,0,2,2,0,0,1,1,2,1,2,2,1,1,2,2,0,2,2,1,3,0]

Expansion in base (n^3*Pi^n + 1) of 1/(1-frac(x)) :
[1,0,3,3,2,2,0,2,3,1,2,1,2,3,3,1,0,1,0,1,1,1,0,1,2,3,0,1,1,0,2,3,1,1,2,2,2,1,3,0,1,1,1,2,0,2,2,1,1,1,1,0,1,0,0,3,0,0,1,1,3,0,2,0,0,0,3,0,1,2,1,0,1,3,0,0,2,0,2,2,1,2,0,0,0,0,1,2,2,1,2,0,0,0,2,0,2,1,2,1,2,0,2,0,3,0,2,0,2,1,2,3,0,0,2,1,0,0,2,0,2,2,1,2,1,3,0,1,0]

Expansion in base (n^3*2^n - 1) of 1/(1-frac(x)) :
[1,0,0,7,1,1,0,0,0,2,1,1,1,1,1,0,0,0,1,2,0,0,0,1,1,0,1,0,1,2,0,0,0,1,1,0,0,0,1,0,0,1,1,2,0,0,0,1,1,0,1,0,1,0,0,1,1,1,1,0,1,0,0,0,1,0,0,0,0,1,0,1,0,1,1,0,1,2,0,0,0,1,0,0,1,0,0,1,1,1,1,0,0,0,0,1,1,0,0,1,0,1,0,0,1,0,1,1,0,2,0,0,0,0,0,1,1,0,0,1,1,0,0,0,1,0,0,1,1,1,0,0,1,1,0,2,0,0,0,0,0,0,0,1,1,0,2,0,0,0,0,0,0,1,0,0,0,0,1,1,0,1,1,1,0,0,1,0,0,1,1,1,0,0,1,0,1,0,0,1,1,0,1,1,0,0,1,0,1,1,0,0,0,1,0,0,0,1,2,0,0,0,0,0,0,1,1,0,1,0,0,0,0,1]

Expansion in base (n^3*2^n + 1) of 1/(1-frac(x)) :
[1,0,1,3,1,0,1,0,1,0,0,0,0,1,1,0,0,1,1,1,2,0,0,2,0,1,0,1,0,0,0,0,0,0,1,1,0,0,1,1,1,1,1,0,0,1,2,0,0,0,0,1,1,0,0,0,1,1,0,0,0,1,0,1,1,0,0,1,0,0,0,1,1,2,0,0,0,0,1,1,1,1,0,1,1,1,0,0,1,2,0,0,0,0,1,0,1,1,1,2,0,0,0,0,1,1,1,0,1,0,1,0,1,0,1,1,0,0,0,0,0,1,1,2,0,0,0,0,0,0,1,0,0,1,0,0,0,0,1,1,1,0,0,0,1,1,0,0,0,0,1,0,1,0,1,0,1,1,1,0,0,1,0,1,1,1,1,0,0,1,1,1,1,0,0,0,0,1,0,1,1,1,0,0,0,1,0,1,1,1,0,0,1,0,1,0,0,0,0,1,0,1,1,0]

Expansion in base (n^3*exp(n) - 1) of 1/(1-frac(x)) :
[1,0,1,9,4,2,3,1,3,0,0,0,0,1,0,0,1,2,0,2,2,1,0,0,1,2,2,2,2,2,0,0,2,0,2,1,2,0,1,2,2,0,2,1,1,0,0,0,0,0,0,1,2,0,1,0,1,1,0,1,0,1,0,2,0,1,2,0,1,1,0,1,0,0,1,0,1,2,1,1,1,2,2,0,1,0,1,2,0,1,2,2,0,1,1,2,0,0,1,0,1,2,1,0,0,0,0,1,1,1,2,2,0,2,2,1,0,1,2,1,1,2,0,1,0,0,2,0,0,1,0,2,0,0,2,1,1,0,1,1,1,1,1,2,1,0,2,1,1,1]

Expansion in base (n^3*exp(n) + 1) of 1/(1-frac(x)) :
[1,0,2,4,5,2,0,1,3,0,0,2,3,1,0,0,2,0,2,2,1,3,0,0,1,1,2,2,0,2,2,1,0,0,0,0,0,1,2,1,0,0,2,1,0,0,1,1,1,2,0,0,2,1,1,2,1,2,2,0,1,0,2,1,0,0,0,1,0,1,2,0,0,2,0,2,0,2,0,0,0,2,0,1,0,2,0,1,2,1,2,2,0,2,0,0,2,0,1,1,0,2,0,0,0,1,0,1,1,1,2,0,0,0,1,1,2,1,0,0,0,2,1,0,0,0,2,1,2,1,2,0,2,0,2,1,0,2,1,0,2,1,1,0,2,0,1,2]

Expansion in base (n^3*10^n - 1) of 1/(1-frac(x)) :
[1,0,30,12,12,15,15,11,11,11,2,4,4,4,11,7,8,2,11,8,0,9,8,1,9,9,9,5,6,2,7,3,7,0,8,7,1,0,7,7,10,3,5,3,5,5,8,1,0,10,4,10,4,8,10,1,8,1,7,4,6,2,0,6,1]

Expansion in base (n^3*10^n + 1) of 1/(1-frac(x)) :
[1,0,30,32,19,16,5,0,13,3,12,6,6,5,0,10,6,1,5,7,3,3,8,10,0,4,5,5,7,9,0,5,8,4,10,1,8,7,8,8,4,9,6,10,4,9,5,3,1,8,4,5,2,3,2,9,7,9,4,6,5,4,2,8,4]

Expansion in base (n/(exp(2*Pi*n) - 1)) of x :
[1,19,197,304,56,393,309,65,346,380,295,463,21,450,194,117,159,490,74,334,456,88,273,113]

Expansion in base (n/(exp(2*Pi*n) + 1)) of x :
[1,19,216,304,272,394,166,413,354,332,378,126,89,296,89,421,422,248,399,129,108,116,412,293]

Expansion in base (n/(exp(Pi*n) - 1)) of x :
[1,0,9,13,7,7,11,5,10,10,2,7,20,19,10,17,20,12,3,7,1,13,11,14,10,16,18,9,3,12,17,0,2,16,12,8,15,14,9,5,17,22,0,11,13,9,3]

Expansion in base (n/(exp(Pi*n) + 1)) of x :
[1,0,9,13,16,8,5,0,13,14,19,9,12,14,16,4,4,0,18,11,14,18,11,13,7,17,17,3,9,11,9,5,10,22,9,2,8,18,21,8,14,18,4,18,19,13,20]

Expansion in base (n/(Pi^n - 1)) of x :
[1,0,0,0,0,2,0,1,2,0,1,0,2,1,0,1,2,0,1,1,2,0,1,2,2,1,0,1,2,1,0,1,2,1,1,0,2,2,0,0,0,0,2,2,2,2,0,1,0,2,3,0,0,2,0,0,2,0,2,2,1,2,0,0,0,2,2,1,0,0,0,0,2,0,2,0,2,1,2,0,2,1,0,2,1,2,0,1,0,0,0,2,3,0,0,2,0,0,0,1,1,2,2,2,2,2,2,1,2,1,0,0,1,0,2,1,0,0,1,1,0,1,2,2,1,2,0,0,1]

Expansion in base (n/(Pi^n + 1)) of x :
[1,0,0,0,0,2,0,1,2,1,0,1,1,0,0,2,1,1,1,1,0,2,0,0,1,0,1,2,1,0,1,0,2,0,0,0,0,0,1,1,1,0,2,2,1,2,2,1,1,0,1,2,2,0,0,0,1,1,1,0,2,1,2,2,2,1,1,2,1,0,2,2,1,0,0,1,2,0,2,2,2,2,2,2,2,0,1,0,2,2,2,0,0,1,2,1,0,2,2,2,1,0,0,0,0,1,0,0,0,1,0,1,2,2,1,0,1,1,2,1,2,1,2,0,1,0,2,0,2,0,0]

Expansion in base (n/(2^n - 1)) of x :
[1,0,0,0,0,0,0,0,1,0,0,1,0,0,0,0,0,1,0,1,0,1,1,0,0,0,0,1,0,1,1,0,0,1,1,0,0,1,0,1,0,1,0,0,0,1,0,1,0,1,1,1,0,0,0,1,1,0,1,1,0,1,0,1,1,0,0,1,1,0,1,0,0,1,0,1,0,1,1,1,0,1,0,0,1,1,0,0,1,1,1,1,0,0,1,0,1,0,1,0,0,0,0,1,1,0,0,1,0,1,0,1,0,1,1,1,0,1,0,1,1,1,0,1,0,1,1,0,0,1,1,0,1,0,1,0,0,0,1,1,0,0,1,1,0,1,1,1,1,0,0,1,1,0,1,1,0,1,0,1,0,0,0,1,1,0,0,1,1,1,0,1,0,0]

Expansion in base (n/(2^n + 1)) of x :
[1,0,0,0,0,0,0,0,1,0,0,1,0,0,0,0,1,1,0,1,1,0,0,0,1,0,0,1,0,1,1,1,0,0,0,1,0,1,0,0,1,0,1,1,0,0,0,1,1,1,0,0,1,0,1,1,0,0,1,0,1,0,1,1,0,0,0,0,0,1,0,1,0,0,0,1,0,1,1,0,0,1,1,1,0,0,0,0,0,0,0,0,0,1,1,1,0,0,1,1,1,0,0,0,1,0,0,1,0,0,0,1,1,1,0,0,0,0,1,0,0,1,1,0,1,1,1,1,1,1,0,0,1,1,0,0,0,1,0,0,1,0,1,1,0,1,1,0,1,0,1,0,1,1,1,1,1,1,0,0,0,1,1,0,1,0,0,1,0,0,0,1,0,1,1,0,0,1,1,0,0,0,1,0,1,0,0,1,1,0,0,0,1,1,0,0,1,0,0]

Expansion in base (n/(exp(n) - 1)) of x :
[1,0,0,0,0,1,0,0,1,0,0,1,1,2,0,1,2,0,1,1,2,0,0,2,0,0,0,2,0,0,2,0,1,1,0,1,0,0,2,1,1,2,0,1,0,1,1,0,0,2,1,0,2,0,1,0,2,0,0,1,1,0,2,0,1,0,2,0,1,0,1,1,1,2,0,0,1,0,1,2,0,2,0,0,1,1,0,1,0,0,2,1,0,1,0,2,1,0,2,0,1,0,2,1,1,1,0,1,0,2,1,1,2,0,1,2,0,1,1,0,1,0,2,0,0,0,1,1,1,2,1,0,1,2,1,0,1,2,1,1,0,0,2,0,2,0,1,0]

Expansion in base (n/(exp(n) + 1)) of x :
[1,0,0,0,0,1,0,0,1,0,1,1,1,2,0,2,0,1,2,0,1,2,0,1,2,0,1,2,0,1,1,1,1,2,0,
0,2,0,0,1,1,0,1,0,1,0,1,1,0,2,0,0,2,1,0,1,1,2,0,2,1,0,1,2,0,0,0,1,2,0,0
,0,2,1,1,0,1,1,1,2,0,1,2,0,0,1,2,0,2,0,0,0,1,0,1,2,0,0,1,2,1,0,0,0,2,1,
0,0,2,0,1,1,0,0,1,0,1,2,1,1,1,2,1,0,2,1,0,1,2,0,0,1,1,2,0,2,0,1,0,0,2,1
,1,0,1,2,0,0]

Expansion in base (n/(10^n - 1)) of x :
[1,0,1,5,4,2,1,6,4,4,2,8,1,9,1,3,9,2,7,0,3,8,7,8,1,6,4,7,3,1,8,8,6,8,0,
8,0,9,4,1,7,9,3,3,5,2,1,0,0,9,1,4,2,9,6,5,8,4,8,2,1,3,8,9,7]

Expansion in base (n/(10^n + 1)) of x :
[1,0,1,5,5,2,6,7,0,6,6,8,8,0,5,7,7,5,5,9,3,4,5,4,8,8,5,3,9,4,7,6,5,2,3,
7,8,6,1,4,2,8,1,0,1,2,3,2,0,1,5,0,0,7,5,8,7,0,1,6,8,5,9,4,2]

Expansion in base (n/(exp(2*Pi*n) - 1)) of 1/x :
[0,515,122,208,285,64,172,445,370,393,17,203,2,31,189,338,346,187,486,6
7,259,42,266,203]

Expansion in base (n/(exp(2*Pi*n) + 1)) of 1/x :
[0,517,103,33,179,321,365,24,177,233,203,470,3,462,314,317,425,0,190,30
4,105,124,468,164]

Expansion in base (n/(exp(Pi*n) - 1)) of 1/x :
[0,21,4,3,15,5,17,3,17,17,12,9,9,8,9,14,7,5,4,6,14,5,19,3,21,21,14,1,5,
15,19,18,19,14,0,21,2,10,12,13,20,5,17,19,4,9,15]

Expansion in base (n/(exp(Pi*n) + 1)) of 1/x :
[0,23,3,1,15,5,8,15,7,14,4,3,14,14,2,11,17,8,8,6,0,17,4,19,14,11,20,4,2
,11,8,20,12,22,0,3,19,18,15,1,19,15,17,19,22,9,19]

Expansion in base (n/(Pi^n - 1)) of 1/x :
[0,2,0,0,0,1,2,0,1,2,1,1,1,2,1,1,2,0,0,1,0,2,1,1,1,2,2,0,2,1,3,0,0,0,2,
1,1,1,0,0,2,0,2,0,1,0,0,2,0,2,1,1,1,0,2,2,2,2,2,1,2,2,2,0,2,1,3,0,0,2,1
,1,1,1,0,2,1,2,0,2,2,1,1,2,1,0,0,1,0,1,1,0,3,0,0,0,1,1,2,0,1,1,0,0,0,2,
1,2,0,1,0,1,2,1,2,2,1,2,0,0,3,0,0,0,2,2,0,3,0]

Expansion in base (n/(Pi^n + 1)) of 1/x :
[0,3,1,0,1,0,2,1,0,1,2,2,0,1,1,0,1,0,1,1,2,2,0,0,1,1,1,0,2,0,1,0,0,3,0,
0,1,0,1,0,2,0,2,0,0,0,2,2,1,1,1,1,1,1,1,2,1,2,1,1,0,2,2,1,0,2,1,0,2,1
,1,1,1,0,1,0,0,0,0,1,2,1,1,2,1,1,0,1,2,1,1,2,1,2,2,0,2,2,0,0,1,1,0,2,2,
2,0,1,2,2,1,0,1,1,1,1,1,2,1,2,0,2,0,1,2,1,0,3]

Expansion in base (n/(2^n - 1)) of 1/x :
[0,0,1,0,1,0,0,0,0,1,1,0,1,0,0,1,1,0,0,0,1,1,0,1,1,0,1,1,1,0,1,0,0,1,1,
0,1,0,0,0,1,0,0,1,0,0,1,0,1,1,1,0,0,0,1,1,0,0,1,1,1,0,1,0,0,0,0,0,1,0,0
,1,0,1,0,1,0,0,1,1,1,1,1,0,0,0,0,0,1,0,1,0,1,0,1,1,0,1,0,0,0,0,0,1,1,1,
0,0,0,1,0,0,1,0,0,1,1,1,0,1,1,0,1,1,0,0,0,1,0,1,0,1,1,1,0,0,1,1,0,0,1,0
,0,0,1,0,1,0,0,0,0,0,0,0,0,1,1,1,0,0,0,0,0,0,1,0,0,0,1,0,0,0,1,0,1,1,1,
0,0,1,1,0,1,0,0,0,1,0,1,0,1,0,0,0,0,0,1,0,0,1,0,1,1,1,0,0,0,0,0,0,0,0,0
]

Expansion in base (n/(2^n + 1)) of 1/x :
[0,2,0,0,1,0,0,1,0,0,0,1,0,1,1,0,1,0,1,1,0,0,0,1,1,0,0,0,1,0,1,0,1,1,0,
0,1,0,1,1,1,0,1,0,1,0,1,1,0,0,0,0,1,1,1,1,0,1,0,1,1,0,0,0,1,0,1,0,0,0,1
,1,0,1,1,1,0,0,1,0,1,0,0,0,0,0,1,1,1,0,0,1,0,1,0,0,1,1,0,0,1,1,0,0,0,1,
1,0,1,1,0,1,1,0,0,0,1,1,0,1,1,0,0,1,0,1,0,1,0,1,1,1,0,0,0,1,0,1,1,1,0,0
,0,0,0,0,1,1,1,0,0,0,0,1,0,0,1,0,1,1,1,0,0,1,1,0,0,1,0,0,1,0,0,1,0,0,1,

1,0,1,0,1,1,1,0,1,1,0,0,1,0,1,1,0,1,0,1,0,0,0,1,0,0,1,0,0,0,1,1,1,1,0,1
]

Expansion in base (n/(exp(n) - 1)) of 1/x :
[0,1,1,0,0,2,0,0,0,1,0,2,0,2,0,0,0,2,1,0,1,2,1,0,0,1,1,0,0,2,0,2,0,1,0,
2,1,1,0,1,1,0,0,1,0,1,0,0,0,1,2,0,0,0,2,0,1,2,1,0,2,0,0,2,0,0,0,0,2,0,1
,0,0,0,2,0,1,1,2,1,1,2,0,1,1,1,2,1,0,0,2,1,0,2,0,0,2,1,0,1,0,0,1,2,1,1,
0,1,2,1,0,2,1,0,0,1,0,0,2,1,1,2,0,1,0,1,2,0,0,0,0,2,0,1,0,2,0,0,1,1,2,0
,0,1,0,1,1,2]

Expansion in base (n/(exp(n) + 1)) of 1/x :
[0,3,0,1,0,0,1,0,0,0,0,2,1,0,0,1,2,0,1,0,2,0,1,1,1,2,0,2,1,1,0,0,1,2,1,
1,0,0,1,1,0,0,0,0,0,0,1,2,0,0,1,1,1,1,0,0,1,0,0,0,2,0,0,0,1,1,2,1,0,1,0
,1,1,1,2,1,0,2,0,0,1,1,2,1,1,1,0,1,1,1,1,1,0,1,0,0,2,0,0,0,0,1,1,1,2,1,
2,0,0,2,1,1,1,2,1,0,0,2,0,2,0,0,1,2,1,1,1,2,1,1,0,0,0,0,0,0,2,1,1,1,1,1
,1,1,1,0,2,0]

Expansion in base (n/(10^n - 1)) of 1/x :
[0,8,3,4,7,1,5,0,1,2,0,3,2,7,8,4,7,6,4,6,2,1,4,7,5,3,2,6,1,0,1,3,6,8,4,
5,8,0,7,9,6,4,5,6,7,0,6,6,0,0,3,5,0,8,1,5,4,8,3,2,5,0,6,6,7]

Expansion in base (n/(10^n + 1)) of 1/x :
[0,10,2,5,1,6,1,2,1,2,0,8,6,5,6,4,6,2,2,8,1,4,5,7,9,4,1,0,2,2,2,3,2,4,6
,7,5,3,9,5,4,6,2,8,4,5,8,7,2,0,7,1,0,0,3,7,7,1,7,4,0,6,2,2,1]

Expansion in base (n/(exp(2*Pi*n) - 1)) of 1-frac(x) :
[0,514,202,99,158,416,411,334,175,310,264,84,412,458,41,409,414,348,330
,163,30,365,232,364]

Expansion in base (n/(exp(2*Pi*n) + 1)) of 1-frac(x) :
[0,516,181,281,129,359,439,23,170,463,315,62,490,321,110,393,72,272,396
,129,285,459,153,453]

Expansion in base (n/(exp(Pi*n) - 1)) of 1-frac(x) :
[0,21,3,13,15,13,6,3,2,0,5,11,20,10,5,15,9,11,5,18,13,7,8,6,15,15,10,21
,15,13,8,14,10,15,10,2,14,20,8,14,14,8,3,9,19,15,15]

Expansion in base (n/(exp(Pi*n) + 1)) of 1-frac(x) :
[0,23,2,11,14,13,7,14,11,2,7,9,8,11,18,5,13,14,20,0,11,2,5,15,7,22,4,8,
10,21,22,0,9,2,11,4,6,21,22,7,14,5,16,17,15,13,19]

Expansion in base (n/(Pi^n - 1)) of 1-frac(x) :
[0,2,0,0,0,1,2,0,0,0,2,2,0,2,2,0,0,2,1,0,0,2,0,1,2,2,1,2,2,2,0,0,1,0,0,
1,2,2,2,1,1,1,1,1,1,0,0,0,2,2,2,1,2,1,1,1,1,2,0,1,0,1,1,0,0,2,0,2,3,0,0
,1,1,1,1,0,2,0,2,1,1,2,2,0,1,0,0,1,3,0,0,2,2,2,1,2,3,0,0,2,1,2,1,1,2,1,
1,2,2,0,1,0,2,2,2,3,0,0,1,1,2,3,0,0,0,0,3,0,0]

Expansion in base (n/(Pi^n + 1)) of 1-frac(x) :
[0,3,1,0,1,0,2,0,1,2,1,1,0,1,1,2,1,0,0,0,2,0,0,0,1,1,1,2,2,0,0,1,2,1,2,
0,2,1,2,3,0,0,1,0,1,0,2,2,2,0,1,0,0,1,0,2,1,2,1,2,1,0,0,2,2,2,0,2,2,0,1
,2,2,1,1,1,2,2,1,0,0,0,1,0,1,1,2,1,0,0,3,0,0,1,0,2,2,1,0,0,2,0,2,0,0,2,
1,0,0,2,0,2,1,0,2,2,2,2,0,1,0,1,1,1,2,2,2,2,1]

Expansion in base (n/(2^n - 1)) of 1-frac(x) :
[0,0,1,0,1,0,0,0,0,1,1,0,0,1,0,1,1,0,0,1,1,0,1,0,1,0,0,0,1,1,1,0,1,0,1,
1,1,0,0,0,1,0,1,0,0,0,0,1,0,1,0,0,0,1,0,0,1,1,1,0,1,0,1,0,0,0,1,1,1,0,0
,1,0,0,1,1,1,1,0,0,1,0,0,1,1,0,0,1,1,1,1,0,0,0,0,1,1,1,0,1,1,1,0,1,0,1,
1,1,0,1,1,0,1,0,0,1,0,1,0,1,1,1,1,1,0,1,1,0,1,1,0,1,0,0,1,1,0,1,1,1,0,0

,1,1,0,1,1,0,0,0,0,0,1,0,1,0,0,0,1,1,0,0,0,0,1,1,0,1,0,1,0,0,1,0,0,1,0,
0,0,0,1,0,1,1,0,1,0,1,1,1,1,1,0,0,1,0,0,0,1,0,0,1,1,1,0,0,0,1,1,0,1,1,1
]

Expansion in base (n/(2^n + 1)) of 1-frac(x) :
[0,2,0,0,1,0,0,1,0,0,0,1,0,0,1,1,0,1,0,1,0,0,0,0,0,1,1,0,1,1,0,0,0,0,1,
1,0,1,0,1,1,1,0,1,1,0,1,1,0,0,1,0,1,0,0,1,1,1,1,0,1,1,0,1,0,1,0,0,0,0,0
,1,1,0,0,0,1,0,0,0,1,1,1,1,0,1,0,0,0,0,1,1,0,0,1,1,1,0,1,1,0,1,0,1,0,0,
1,0,1,1,1,1,1,0,1,0,1,1,1,0,1,1,0,0,1,1,1,0,1,0,0,0,1,1,1,0,1,1,1,0,1,0
,0,0,0,1,0,1,0,1,1,1,1,0,0,0,1,0,0,1,0,1,0,1,1,1,0,0,1,1,0,1,0,1,1,0,1,
0,1,0,1,0,0,1,0,1,1,1,1,0,1,0,1,1,1,0,0,1,0,0,0,1,0,1,0,0,0,1,0,0,0,1,1
]

Expansion in base (n/(exp(n) - 1)) of 1-frac(x) :
[0,1,1,0,0,2,0,0,0,0,0,1,0,1,0,2,0,2,0,0,0,0,2,0,0,1,0,0,1,1,0,0,0,1,0,
0,0,2,1,1,1,1,0,2,1,1,1,2,0,1,1,2,0,1,2,0,2,1,1,2,0,2,0,2,0,1,1,0,1,2,0
,1,1,2,0,1,1,1,2,1,1,0,2,1,0,1,0,2,0,1,1,0,1,0,0,0,2,0,1,0,2,1,0,1,1,1,
0,0,1,1,0,1,1,2,0,2,0,2,1,0,1,0,1,0,1,1,2,1,0,1,2,1,0,1,1,0,0,0,1,2,0,0
,1,0,2,0,0,1]

Expansion in base (n/(exp(n) + 1)) of 1-frac(x) :
[0,3,0,1,0,0,0,2,0,1,0,0,1,1,0,0,1,0,0,1,1,1,2,1,0,0,1,1,0,2,1,0,0,0,2,
1,1,0,2,1,1,0,1,2,1,0,0,0,0,1,1,0,0,2,1,0,1,0,0,0,0,1,1,2,0,0,1,0,2,0,1
,2,1,1,2,0,0,0,2,0,1,1,0,2,0,2,0,2,0,1,0,0,1,0,2,1,0,0,1,1,1,0,1,0,1,1,
1,0,0,2,1,2,0,0,2,0,0,1,2,0,0,2,0,2,1,0,2,1,1,0,1,1,1,1,0,2,1,0,2,0,0,0
,2,0,2,0,0,2]

Expansion in base (n/(10^n - 1)) of 1-frac(x) :
[0,8,3,4,3,7,2,4,4,4,3,7,4,5,6,0,5,6,5,4,1,4,7,8,3,2,9,0,4,8,1,2,4,5,9,
1,9,5,9,5,7,0,7,1,7,4,8,5,3,7,5,4,7,3,8,1,2,8,1,5,2,6,9,6,1]

Expansion in base (n/(10^n + 1)) of 1-frac(x) :
[0,10,2,4,5,7,6,5,0,7,3,8,1,4,5,5,7,1,2,6,4,0,5,0,1,0,1,9,5,4,8,1,6,9,0
,1,3,0,8,1,1,8,9,2,0,4,5,6,3,7,2,7,1,6,2,7,5,1,6,0,7,2,7,1,0]

Expansion in base (n/(exp(2*Pi*n) - 1)) of 1/(1-frac(x)) :
[1,20,132,220,210,68,193,36,322,221,293,472,459,354,410,6,23,58,455,141
,265,355,117,45]

Expansion in base (n/(exp(2*Pi*n) + 1)) of 1/(1-frac(x)) :
[1,20,152,220,362,68,413,37,215,433,228,37,336,344,305,116,423,207,342,
124,121,373,135,270]

Expansion in base (n/(exp(Pi*n) - 1)) of 1/(1-frac(x)) :
[1,0,10,3,14,4,7,18,8,18,4,15,0,7,14,19,18,13,0,19,14,20,19,21,5,10,9,1
7,7,18,11,15,17,9,5,16,5,12,15,22,3,1,3,2,9,22,3]

Expansion in base (n/(exp(Pi*n) + 1)) of 1/(1-frac(x)) :
[1,0,10,4,6,16,10,2,14,2,15,0,9,2,10,20,15,6,21,8,4,9,19,4,6,21,3,9,4,2
0,14,21,11,9,11,11,4,22,9,12,18,20,18,8,9,3,21]

Expansion in base (n/(Pi^n - 1)) of 1/(1-frac(x)) :
[1,0,0,0,0,2,0,2,1,0,0,2,0,0,2,1,2,2,1,1,0,0,0,0,2,1,1,2,0,1,1,1,2,1,1,
2,0,1,0,1,0,1,0,0,0,0,1,0,1,2,1,1,2,0,2,0,1,2,2,2,2,1,0,2,1,1,1,2,2,1,2
,2,0,0,0,1,1,0,2,2,2,0,2,2,1,2,1,1,2,2,2,1,0,0,2,1,2,1,1,2,3,0,0,2,2,2,
1,1,2,1,0,0,0,2,1,2,2,2,0,1,1,1,1,1,0,3,0,0,2]

Expansion in base (n/(Pi^n + 1)) of 1/(1-frac(x)) :
[1,0,0,0,0,2,0,2,1,0,2,2,0,1,1,2,1,1,2,1,1,2,1,0,1,0,1,1,1,0,2,0,1,1,1,
1,2,2,0,2,2,1,0,0,0,1,2,0,1,2,1,2,0,0,2,1,1,1,2,0,2,2,2,0,1,0,0,1,2,0,2
,0,1,0,0,0,0,2,0,2,0,1,1,1,0,2,1,1,1,1,1,1,2,1,2,1,0,0,2,1,1,1,0,0,0,2,
0,2,2,1,0,2,1,1,2,2,1,1,1,2,2,2,1,1,1,0,1,0,0]

Expansion in base (n/(2^n - 1)) of 1/(1-frac(x)) :
[1,0,0,0,0,0,0,0,1,0,0,1,0,1,0,0,0,0,0,0,0,1,0,0,0,0,0,1,1,0,0,0,1,0,0,
0,1,1,1,1,0,0,1,0,1,0,1,1,1,0,1,0,1,0,0,0,1,0,1,0,0,1,0,0,0,1,1,0,1,1,1
,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,1,0,1,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
0,0,0,0,0,0,1,0,1,0,0,0,0,1,0,1,0,0,1,0,1,0,1,1,1,0,1,1,1,1,0,0,0,0,0,0
,0,0,0,1,0,1,1,1,1,1,0,0,0,1,0,0,1,0,0,0,1,1,1,1,0,0,0,0,0,0,0,1,0,1,0,1,
0,0,0,0,1,1,0,0,1,1,1,1,0,0,0,0,1,0,1,1,1,1,0,1,1,0,0,0,1,0,0,0,0,0,0,1
]

Expansion in base (n/(2^n + 1)) of 1/(1-frac(x)) :
[1,0,0,0,0,0,0,0,1,0,0,1,0,1,0,0,1,0,0,0,0,1,1,0,0,0,1,1,1,0,0,1,0,0,0,
1,0,1,1,0,1,1,1,0,1,0,0,0,0,1,0,0,0,1,0,0,0,1,1,0,1,1,0,1,0,1,1,0,1,0,1
,1,1,0,1,0,1,1,0,0,1,0,1,1,0,0,1,0,0,1,0,1,0,0,1,0,1,1,1,0,0,0,1,1,0,1,
1,1,1,0,0,1,1,0,0,0,0,1,1,1,0,0,1,1,0,0,1,0,1,0,1,0,1,1,1,1,1,0,1,0,1,0
,0,0,0,0,0,0,1,1,1,0,1,0,0,1,1,1,1,0,0,1,0,0,0,1,1,1,0,0,1,0,1,0,0,0,1,
1,1,0,1,0,1,0,0,0,1,0,1,0,1,0,0,0,0,1,1,0,0,0,1,1,0,1,1,0,0,1,0,1,0,1,1
]

Expansion in base (n/(exp(n) - 1)) of 1/(1-frac(x)) :
[1,0,0,0,0,1,0,0,1,1,1,0,2,0,2,1,0,0,2,0,2,1,0,0,0,1,1,2,0,2,0,2,0,0,2,
0,0,2,1,1,0,0,1,1,0,1,2,0,1,1,0,0,1,0,2,1,0,0,0,1,2,1,1,2,1,1,0,2,1,1,1
,1,0,0,0,2,1,0,1,0,1,2,0,0,2,0,0,2,0,1,0,0,2,0,1,2,0,2,1,1,1,1,1,1,0,2,
0,1,0,1,1,0,1,2,0,1,2,0,2,1,2,0,1,0,2,1,1,0,2,0,2,0,0,2,0,2,1,0,2,1,1,1
,0,2,0,0,1,1]

Expansion in base (n/(exp(n) + 1)) of 1/(1-frac(x)) :
[1,0,0,0,0,1,0,0,1,1,2,0,2,1,0,0,0,1,2,0,1,0,0,0,0,0,0,1,0,1,0,2,0,0,0,
2,0,1,0,0,2,0,0,0,2,1,0,2,0,0,1,0,2,1,0,1,1,0,1,1,0,1,2,0,0,0,1,1,0,2,1
,1,0,0,0,1,2,1,2,0,0,1,2,1,2,0,0,1,2,0,0,2,1,0,1,0,0,2,1,1,2,0,0,0,2,0,
0,0,0,2,1,1,0,2,0,1,0,1,0,1,1,2,1,1,0,1,2,1,1,1,0,1,1,0,0,1,2,1,2,0,2,0
,2,1,2,0,0,2]

Expansion in base (n/(10^n - 1)) of 1/(1-frac(x)) :
[1,0,1,6,0,2,3,8,0,6,8,6,6,8,3,0,1,3,7,6,6,2,3,7,8,7,4,1,6,1,5,7,3,2,5,
6,0,9,2,4,6,3,0,0,0,8,0,0,4,9,1,4,7,2,5,2,6,4,0,1,8,1,0,7,4]

Expansion in base (n/(10^n + 1)) of 1/(1-frac(x)) :
[1,0,1,6,1,3,1,5,3,0,5,2,6,9,0,2,0,3,2,3,2,6,2,0,0,4,1,3,7,3,7,5,2,4,2,
2,7,5,3,8,4,1,1,6,8,1,2,3,3,6,5,7,3,8,5,7,8,6,7,9,7,5,7,7,3]

Appendix

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