

# Les nombres en base $e^\pi$

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## Résumé

Une expérience à grande échelle a été menée pour trouver des formules relatives à la base  $e^\pi$  et  $e^{2\pi}$ . Les nombres en ces bases sont

$$x = \sum_{n=0}^{\infty} \frac{a(n)}{e^{\pi n}} \text{ ou } x = \sum_{n=0}^{\infty} \frac{a(n)}{e^{2\pi n}}$$

Ces expériences ont été inspirées par plusieurs faits. En effet, il est connu que la formule générant les partages d'entiers,

$$\prod_{k \geq 1} \frac{1}{1 - x^k} = \sum_{n=0}^{\infty} p(n) x^n$$

est égale à

$$\frac{2^{3/8} \Gamma(3/4)}{\pi^{1/4} e^{\pi/24}}$$

lorsqu'elle est évaluée au point  $x = e^{-\pi}$ . En analysant les 362400 suites du OEIS le modèle qui a été utilisé tient au fait que la somme infinie évaluée à  $e^{k\pi}$ , où  $k = 1$  ou  $2$  est une expression qui permet d'être détectée à l'aide d'un programme comme lindep de Pari-Gp ou PSLQ (version Maple).

Pour être détectée, la relation avec des entiers, il est nécessaire de prendre le logarithme de la somme.

$$\log \left( \sum_{n=0}^{\infty} \frac{a(n)}{e^{k\pi n}} \right) \equiv [\ln(\pi), \pi, \ln(2), \ln(3), \ln(\Gamma(\frac{3}{4}))]$$

Le signe  $\equiv$  signifie qu'il y a une identité avec 0 ou dit autrement le logarithme de la somme est une combinaison linéaire de la liste des constantes. Cette hypothèse semble être la bonne puisque plus de 659 expressions ont été identifiées. Dans de rares exceptions on peut rajouter le logarithme des premiers après 3.

La chose remarquable à propos de ces expressions est le fait que malgré la grande variété de contextes combinatoires elles ont toutes le même modèle si on évalue la suite en ces points que sont  $e^\pi$  et  $e^{2\pi}$ . L'expérience est concluante, puisque 224 suites se réfèrent aux fonctions Theta, 107 à la fonction Tau the Ramanujan et variantes et 52 aux partitions (partages) d'entiers. Par contre du travail reste à faire puisqu'il y a plus de 2000 suites se référant aux fonctions Theta et des milliers aux partitions dans tous les contextes.

Note : Les suites étendues proviennent des fichiers 'b' du site OEIS, normalement une suite comporte environ 3 lignes pleines d'environ 80 caractères de termes. Dans bien des cas de figure il a été pensé depuis longtemps qu'une extension de la suite de base était nécessaire. Le choix a été fait de prendre les 512 premiers termes de chaque suite (lorsque c'est disponible) et avec une précision de 64 décimales pour les sommes évaluées.

Index: la plupart des suites sont définies à partir de 0 j'ai donc choisi de prendre ce point comme départ.

Chaque page contient le numéro de la suite, le nom, la formule, les quelques premiers termes de la suite et combien de termes pour l'évaluation de la série.

Sequence: A000009

Name: Expansion of Product\_{m := 1} (1 + x^m); number of partitions of n into distinct parts; number of partitions of n into odd parts.

$$\frac{2^{7/8}}{2 e^{-\frac{\pi}{24}}}$$

Printed: 1/2/exp(-1/24\*Pi)\*2^(7/8)

Value: 1.04525021435471194254759

Number of terms: 512

Offset: 0

Sequence: 1, 1, 1, 2, 2, 3, 4, 5, 6, 8, 10, 12, 15, 18, 22, 27, 32, 38, 46, 54, 64, 76, 89, 104, 122, 142, 165, 192, 222, 256, 296, 340, 390, 448, 512, 585, 668, 760, 864, 982, 1113, 1260, 1426, 1610, 1816, 2048, 2304, 2590, 2910, 3264, 3658, 4097, 4582, 5120, 5718, 6378

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Sequence: A000041

Name: a(n) is the number of partitions of n (the partition numbers).

$$\frac{2^{3/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{24}}}$$

Printed: 2^(3/8)/Pi^(1/4)\*GAMMA(3/4)/exp(1/24\*Pi)

Value: 1.04720947004604213021980

Number of terms: 512

Offset: 0

Sequence: 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 77, 101, 135, 176, 231, 297, 385, 490, 627, 792, 1002, 1255, 1575, 1958, 2436, 3010, 3718, 4565, 5604, 6842, 8349, 10143, 12310, 14883, 17977, 21637, 26015, 31185, 37338, 44583, 53174, 63261, 75175, 89134, 105558, 124754, 147273, 173525

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Sequence: A000118

Name: Number of ways of writing n as a sum of 4 squares; also theta series of four-dimensional cubic lattice Z^4.

$$\frac{\pi}{\Gamma\left(\frac{3}{4}\right)^4}$$

Printed: Pi/GAMMA(3/4)^4

Value: 1.39320392968567685918424



$$\frac{\pi^2}{\Gamma\left(\frac{3}{4}\right)^8}$$

Printed: Pi^2/GAMMA(3/4)^8  
 Value: 1.94101718969161242994987  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 16, 112, 448, 1136, 2016, 3136, 5504, 9328, 12112, 14112,  
 21312, 31808, 35168, 38528, 56448, 74864, 78624, 84784, 109760, 143136,  
 154112, 149184, 194688, 261184, 252016, 246176, 327040, 390784, 390240,  
 395136, 476672, 599152, 596736, 550368, 693504, 859952

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Sequence: A000144  
 Name: Number of ways of writing n as a sum of 10 squares.

$$\frac{\pi^{5/2}}{\Gamma\left(\frac{3}{4}\right)^{10}}$$

Printed: Pi^(5/2)/GAMMA(3/4)^10  
 Value: 2.29106139238113749228605  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 20, 180, 960, 3380, 8424, 16320, 28800, 52020, 88660, 129064,  
 175680, 262080, 386920, 489600, 600960, 840500, 1137960, 1330420,  
 1563840, 2050344, 2611200, 2986560, 3358080, 4194240, 5318268, 5878440,  
 6299520, 7862400, 9619560

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Sequence: A000145  
 Name: Number of ways of writing n as a sum of 12 squares.

$$\frac{\pi^3}{\Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed: Pi^3/GAMMA(3/4)^12  
 Value: 2.70423277626580330600176  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 24, 264, 1760, 7944, 25872, 64416, 133056, 253704, 472760,  
 825264, 1297056, 1938336, 2963664, 4437312, 6091584, 8118024, 11368368,  
 15653352, 19822176, 24832944, 32826112, 42517728, 51425088, 61903776,

78146664, 98021616

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Sequence: A000152

Name: Number of ways of writing n as a sum of 16 squares.

$$\frac{\pi^4}{\Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed: Pi^4/GAMMA(3/4)^16

Value: 3.76754773067832495079583

Number of terms: 512

Offset: 0

Sequence: 1, 32, 480, 4480, 29152, 140736, 525952, 1580800, 3994080,  
8945824, 18626112, 36714624, 67978880, 118156480, 197120256,  
321692928,  
509145568, 772845120, 1143441760, 1681379200, 2428524096, 3392205824,  
4658843520, 6411152640

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Sequence: A000156

Name: Number of ways of writing n as a sum of 24 squares.

$$\frac{\pi^6}{\Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: Pi^6/GAMMA(3/4)^24

Value: 7.31287490823025420018886

Number of terms: 512

Offset: 0

Sequence: 1, 48, 1104, 16192, 170064, 1362336, 8662720, 44981376,  
195082320, 721175536, 2319457632, 6631997376, 17231109824,  
41469483552,  
93703589760, 200343312768, 407488018512, 793229226336,  
1487286966928, 2697825744960, 4744779429216

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Sequence: A000521

Name: Coefficients of modular function j as power series in  $q = e^{(2\pi i t)}$ .

Another name is the elliptic modular invariant  $J(\tau)$ .

$$\frac{1728}{e^{2\pi}}$$

Printed: 1728/exp(2\*Pi)

Value: 3.22694104039140467133542  
Number of terms: 512  
Offset: -1

Sequence: 1, 744, 196884, 21493760, 864299970, 20245856256,  
333202640600, 4252023300096, 44656994071935, 401490886656000,  
3176440229784420,  
22567393309593600, 146211911499519294, 874313719685775360,  
4872010111798142520, 25497827389410525184, 126142916465781843075  
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Sequence: A000594  
Name: Ramanujan's tau function (or Ramanujan numbers, or tau numbers).

$$\frac{\pi^6}{512 \Gamma\left(\frac{3}{4}\right)^{24} e^{-\pi}}$$

Printed: 1/512\*Pi^6/GAMMA(3/4)^24/exp(-Pi)  
Value: .330517559596328547438584  
Number of terms: 512  
Offset: 1

Sequence: 1, -24, 252, -1472, 4830, -6048, -16744, 84480, -113643, -115920,  
534612, -370944, -577738, 401856, 1217160, 987136, -6905934, 2727432,  
10661420, -7109760, -4219488, -12830688, 18643272, 21288960, -25499225,  
13865712, -73279080, 24647168  
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Sequence: A000700  
Name: Expansion of Product\_{k=0} (1 + x^(2k+1)); number of partitions of n  
into distinct odd parts; number of self-conjugate partitions; number of  
f symmetric Ferrers graphs with n nodes.

$$\frac{2^{1/4}}{e^{\frac{\pi}{24}}}$$

Printed: 1/exp(1/24\*Pi)\*2^(1/4)  
Value: 1.04329826264468701252788  
Number of terms: 512  
Offset: 0

Sequence: 1, 1, 0, 1, 1, 1, 1, 1, 2, 2, 2, 2, 3, 3, 3, 4, 5, 5, 5, 6, 7, 8, 8, 9, 11,  
12, 12, 14, 16, 17, 18, 20, 23, 25, 26, 29, 33, 35, 37, 41,  
46, 49, 52, 57, 63, 68, 72, 78, 87, 93, 98, 107, 117, 125, 133, 144, 157, 168,  
178, 192, 209, 223, 236, 255, 276, 294, 312, 335, 361, 385  
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Sequence: A000712

Name: Generating function = Product\_{m:=1} 1/(1 - x^m)^2; a(n) = number of partitions of n into parts of 2 kinds.

$$\frac{2^{3/4} \Gamma\left(\frac{3}{4}\right)^2}{\sqrt{\pi} e^{\frac{\pi}{12}}}$$

Printed: 2^(3/4)/Pi^(1/2)\*GAMMA(3/4)^2/exp(1/12\*Pi)

Value: 1.09664767415411240957242

Number of terms: 512

Offset: 0

Sequence: 1, 2, 5, 10, 20, 36, 65, 110, 185, 300, 481, 752, 1165, 1770, 2665, 3956, 5822, 8470, 12230, 17490, 24842, 35002, 49010, 68150, 94235, 129512, 177087, 240840, 326015, 439190, 589128, 786814, 1046705, 1386930, 1831065, 2408658, 3157789, 4126070, 5374390

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Sequence: A000716

Name: Number of partitions of n into parts of 3 kinds.

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^3 2^{1/8}}{\pi^{3/4} e^{\frac{\pi}{8}}}$$

Printed: 2/Pi^(3/4)\*GAMMA(3/4)^3/exp(1/8\*Pi)\*2^(1/8)

Value: 1.14841982967815274976740

Number of terms: 512

Offset: 0

Sequence: 1, 3, 9, 22, 51, 108, 221, 429, 810, 1479, 2640, 4599, 7868, 13209, 21843, 35581, 57222, 90882, 142769, 221910, 341649, 521196, 788460, 1183221, 1762462, 2606604, 3829437, 5590110, 8111346, 11701998, 16790136, 23964594, 34034391, 48104069, 67679109, 94800537, 132230021, 183686994, 254170332

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Sequence: A000727

Name: Expansion of Product\_{k := 1} (1 - x^k)^4.

$$\frac{\sqrt{2} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{6}}}$$

Printed:  $1/4*2^{(1/2)}*Pi/GAMMA(3/4)^4/exp(-1/6*Pi)$   
 Value: .831506706267247449665960  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -4, 2, 8, -5, -4, -10, 8, 9, 0, 14, -16, -10, -4, 0, -8, 14, 20, 2, 0, -11, 20, -32, -16, 0, -4, 14, 8, -9, 20, 26, 0, 2, -28, 0, -16, 16, -28, -22, 0, 14, 16, 0, 40, 0, -28, 26, 32, -17, 0, -32, -16, -22, 0, -10, 32, -34, -8, 14, 0, 45, -4, 38, 8, 0, 0, -34, -8, 38, 0, -22, -56, 2, -28, 0, 0, -10, 20, 64, -40, -20, 44

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Sequence: A000728  
 Name: Expansion of Product\_{n:=1} (1-x^n)^5.

$$\frac{2^{1/8} \pi^{5/4}}{4 \Gamma\left(\frac{3}{4}\right)^5 e^{-\frac{5\pi}{24}}}$$

Printed:  $1/4*2^{(1/8)}*Pi^{(5/4)}/GAMMA(3/4)^5/exp(-5/24*Pi)$   
 Value: .794021377815356285873998  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -5, 5, 10, -15, -6, -5, 25, 15, -20, 9, -45, -5, 25, 20, 10, 15, 20, -50, -35, -30, 55, -50, 15, 80, 1, 50, -35, -45, -15, 5, -50, -25, -55, 85, 51, 50, 10, -40, 65, 10, -10, -115, 50, -115, -100, 85, 80, -30, 5, 20, 45, 70, 65, 45, -55, -100

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Sequence: A000729  
 Name: Expansion of Product\_{k:=1} (1 - x^k)^6.

$$\frac{\pi^{3/2} 2^{3/4}}{8 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{4}}}$$

Printed:  $1/8*Pi^{(3/2)}/GAMMA(3/4)^6/exp(-1/4*Pi)*2^{(3/4)}$   
 Value: .758225933327785842803441  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -6, 9, 10, -30, 0, 11, 42, 0, -70, 18, -54, 49, 90, 0, -22, -60, 0, -110, 0, 81, 180, -78, 0, 130, -198, 0, -182, -30, 90, 121, 84, 0, 0, 210, 0, -252, -102, -270, 170, 0, 0, -69, 330, 0, -38, 420, 0, -190, -390, 0, -108, 0, 0, 0, -300, 99, 442, 210, 0, 418, -294, 0, 0, -510, 378, -540, 138, 0

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Sequence: A000730

Name: Expansion of Product\_{n=1} (1 - x^n)^7.

$$\frac{\pi^{7/4} 2^{3/8}}{8 \Gamma\left(\frac{3}{4}\right)^7 e^{-\frac{7\pi}{24}}}$$

Printed: 1/8\*Pi^(7/4)/GAMMA(3/4)^7/exp(-7/24\*Pi)\*2^(3/8)

Value: .724044190790644116201665

Number of terms: 512

Offset: 0

Sequence: 1, -7, 14, 7, -49, 21, 35, 41, -49, -133, 98, -21, 126, 112, -176, -105, -126, 140, -35, 147, 259, 98, -420, -224, 238, -455, 273, -14, 322, 406, -35, -7, -637, -196, 245, -181, -574, 462, 147, 924, 217, -329, -140, -7, -371, -777

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Sequence: A000731

Name: Expansion of Product (1 - x^k)^8 in powers of x.

$$\frac{\pi^2}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{3}}}$$

Printed: 1/8\*Pi^2/GAMMA(3/4)^8/exp(-1/3\*Pi)

Value: .691403402567406529188702

Number of terms: 512

Offset: 0

Sequence: 1, -8, 20, 0, -70, 64, 56, 0, -125, -160, 308, 0, 110, 0, -520, 0, 57, 560, 0, 0, 182, -512, -880, 0, 1190, -448, 884, 0, 0, 0, -1400, 0, -1330, 1000, 1820, 0, -646, 1280, 0, 0, -1331, -2464, 380, 0, 1120, 0, 2576, 0, 0, -880, 1748, 0, -3850, 0, -3400, 0, 2703, 4160, -2500, 0, 3458

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Sequence: A000735

Name: Expansion of Product\_{k=1} (1 - x^k)^12.

$$\frac{\pi^3 \sqrt{2}}{32 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\frac{\pi}{2}}}$$

Printed: 1/32\*Pi^3/GAMMA(3/4)^12/exp(-1/2\*Pi)\*2^(1/2)

Value: .574906565970791942075100

Number of terms: 512

Offset: 0

Sequence: 1, -12, 54, -88, -99, 540, -418, -648, 594, 836, 1056, -4104, -209, 4104, -594, 4256, -6480, -4752, -298, 5016, 17226, -12100, -5346, -\ 1296, -9063, -7128, 19494, 29160, -10032, -7668, -34738, 8712, -22572, 21812, 49248, -46872, 67562, 2508, -47520, -76912, -25191, 67716

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Sequence: A000739

Name: Expansion of Product\_{k:=1} (1 - x^k)^16.

$$\frac{\pi^4}{64 \Gamma\left(\frac{3}{4}\right)^{16} e^{-\frac{2\pi}{3}}}$$

Printed: 1/64\*Pi^4/GAMMA(3/4)^16/exp(-2/3\*Pi)

Value: .478038665081787213518112

Number of terms: 512

Offset: 0

Sequence: 1, -16, 104, -320, 260, 1248, -3712, 1664, 6890, -7280, -5568, - 4160, 33176, 4640, -74240, 29824, 14035, 54288, 27040, -142720, 1508, -\ 110240, 289536, 222720, -380770, -83200, -123904, 142912, 7640, 408000, 386048

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Sequence: A001934

Name: Expansion of 1/theta\_4(q)^2 in powers of q.

$$\frac{\sqrt{2} \Gamma\left(\frac{3}{4}\right)^2}{\sqrt{\pi}}$$

Printed: 1/Pi^(1/2)\*2^(1/2)\*GAMMA(3/4)^2

Value: 1.19814023473559220743993

Number of terms: 512

Offset: 0

Sequence: 1, 4, 12, 32, 76, 168, 352, 704, 1356, 2532, 4600, 8160, 14176, 24168, 40512, 66880, 108876, 174984, 277932, 436640, 679032, 1046016, 1597088, 2418240, 3632992, 5417708, 8022840, 11802176, 17252928, 25070568, 36223424, 52053760, 74414412

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Sequence: A001935

Name: Number of partitions with no even part repeated; partitions of n in which no parts are multiples of 4.

$$\frac{\sqrt{2}}{2 e^{-\frac{\pi}{8}}}$$

Printed: 1/2/exp(-1/8\*Pi)\*2^(1/2)  
 Value: 1.04720581805536571812516  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 2, 3, 4, 6, 9, 12, 16, 22, 29, 38, 50, 64, 82, 105, 132, 166, 208, 258, 320, 395, 484, 592, 722, 876, 1060, 1280, 1539, 1846, 2210, 2636, 3138, 3728, 4416, 5222, 6163, 7256, 8528, 10006, 11716, 13696, 15986, 18624, 21666, 25169, 29190, 33808, 39104, 45164

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Sequence: A001936  
 Name: Expansion of  $q^{(-1/4)} * (\eta(q^4) / \eta(q))^2$  in powers of  $q$ .

$$\frac{1}{2 e^{-\frac{\pi}{4}}}$$

Printed: 1/2/exp(-1/4\*Pi)  
 Value: 1.09664002536900772827988  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 5, 10, 18, 32, 55, 90, 144, 226, 346, 522, 777, 1138, 1648, 2362, 3348, 4704, 6554, 9056, 12425, 16932, 22922, 30848, 41282, 54946, 72768, 95914, 125842, 164402, 213901, 277204, 357904, 460448, 590330, 754368, 960948, 1220370, 1545306

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Sequence: A001937  
 Name: Expansion of  $(\psi(x^2) / \psi(-x))^3$  in powers of  $x$  where  $\psi()$  is a Ramanujan theta function.

$$\frac{\sqrt{2}}{4 e^{-\frac{3\pi}{8}}}$$

Printed: 1/4/exp(-3/8\*Pi)\*2^(1/2)  
 Value: 1.14840781487880875247100  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 3, 9, 22, 48, 99, 194, 363, 657, 1155, 1977, 3312, 5443, 8787, 13968, 21894, 33873, 51795, 78345, 117312, 174033, 255945, 373353, 540486, 776848, 1109040, 1573209, 2218198, 3109713, 4335840, 6014123, 8300811, 11402928, 15593702, 21232521, 28790667, 38884082

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Sequence: A001938

Name: Expansion of  $k/(4*q^{(1/2)})$  in powers of  $q$ , where  $k$  defined by  $\text{sqrt}(k) = \theta_2(0, q)/\theta_3(0, q)$ .

$$\frac{\sqrt{2}}{8 e^{-\frac{\pi}{2}}}$$

Printed:  $1/8/\exp(-1/2*\text{Pi})*2^{(1/2)}$

Value: .850380294206275782059975

Number of terms: 512

Offset: 0

Sequence: 1, -4, 14, -40, 101, -236, 518, -1080, 2162, -4180, 7840, -14328, 25591, -44776, 76918, -129952, 216240, -354864, 574958, -920600, 1457946, -2285452, 3548550, -5460592, 8332425, -12614088, 18953310, -28276968, 41904208, -61702876, 90304598, -131399624  
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Sequence: A001939

Name: Expansion of  $(\psi(-x) / \phi(-x))^5$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\sqrt{2}}{8 e^{-\frac{5\pi}{8}}}$$

Printed:  $1/8/\exp(-5/8*\text{Pi})*2^{(1/2)}$

Value: 1.25938997524266356118731

Number of terms: 512

Offset: 0

Sequence: 1, 5, 20, 65, 185, 481, 1165, 2665, 5820, 12220, 24802, 48880, 93865, 176125, 323685, 583798, 1035060, 1806600, 3108085, 5276305, 8846884, 14663645, 24044285, 39029560, 62755345, 100004806, 158022900, 247710570, 385366265, 595212280, 913040649, 1391449780  
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Sequence: A001940

Name: Absolute value of coefficients of an elliptic function.

$$\frac{1}{8 e^{-\frac{3\pi}{4}}}$$

Printed:  $1/8/\exp(-3/4*\text{Pi})$

Value: 1.31884050927472027347088

Number of terms: 512  
Offset: 0

Sequence: 1, 6, 27, 98, 309, 882, 2330, 5784, 13644, 30826, 67107, 141444,  
289746, 578646, 1129527, 2159774, 4052721, 7474806, 13569463, 24274716,  
42838245, 74644794, 128533884, 218881098, 368859591, 615513678,  
1017596115, 1667593666, 2710062756, 4369417452

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Sequence: A001941  
Name: Absolute values of coefficients of an elliptic function.

$$\frac{\sqrt{2}}{16 e^{-\frac{7\pi}{8}}}$$

Printed: 1/16/exp(-7/8\*Pi)\*2^(1/2)  
Value: 1.38109745439958858258980  
Number of terms: 512  
Offset: 0

Sequence: 1, 7, 35, 140, 483, 1498, 4277, 11425, 28889, 69734, 161735,  
362271, 786877, 1662927, 3428770, 6913760, 13660346, 26492361,  
50504755,  
94766875, 175221109, 319564227, 575387295, 1023624280, 1800577849,  
3133695747, 5399228149, 9214458260, 15584195428

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Sequence: A001943  
Name: Expansion of reciprocal of theta series of E\_8 lattice.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^8}{3 \pi^2}$$

Printed: 4/3/Pi^2\*GAMMA(3/4)^8  
Value: .686925051676215438785641  
Number of terms: 424  
Offset: 0

Sequence: 1, -240, 55440, -12793920, 2952385680, -681306078240,  
157221316739520, -36281112432850560, 8372395974330234000, -  
1932052510261208053680,  
445849302141400152457440, -102886230661038692118348480

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Sequence: A002107  
Name: Expansion of Product\_{k=1} (1 - x^k)^2.

$$\frac{\sqrt{\pi} 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{12}}}$$

Printed: 1/2\*Pi^(1/2)/GAMMA(3/4)^2/exp(-1/12\*Pi)\*2^(1/4)

Value: .911869895471523640137070

Number of terms: 512

Offset: 0

Sequence: 1, -2, -1, 2, 1, 2, -2, 0, -2, -2, 1, 0, 0, 2, 3, -2, 2, 0, 0, -2, -2, 0, 0, -2, -1, 0, 2, 2, -2, 2, 1, 2, 0, 2, -2, -2, 2, 0, -2, 0, -4, 0, 0, 0, 1, -2, 0, 0, 2, 0, 2, 2, 1, -2, 0, 2, 2, 0, 0, -2, 0, -2, 0, -2, 2, 0, -4, 0, 0, -2, -1, 2, 0, 2, 0, 0, 0, -2

Sequence: A002171

Name: Glaisher's chi numbers. a(n) = chi(4\*n + 1).

$$\frac{2^{1/4} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(1/4)\*Pi/GAMMA(3/4)^4/exp(-1/4\*Pi)

Value: .908460997739966816433182

Number of terms: 512

Offset: 0

Sequence: 1, -2, -3, 6, 2, 0, -1, -10, 0, -2, 10, 6, -7, 14, 0, -10, -12, 0, -6, 0, 9, -4, 10, 0, 18, -2, 0, 6, -14, -18, -11, 12, 0, 0, -22, 0, 20, 14, -6, 22, 0, 0, 23, -26, 0, -18, 4, 0, -14, -2, 0, -20, 0, 0, 0, 12, 3, 30, 26, 0, -30, 14, 0, 0, 2, 30, -28, -26, 0, -18, 10, 0, -13, -34, 0, 0, 20, 0, 26, 22, 0, -6, 0, 6, 18, 0

Sequence: A002288

Name: G.f.: q \* Product\_{m=1} (1-q^m)^8\*(1-q^2m)^8.

$$\frac{\pi^4}{128 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed: 1/128\*Pi^4/GAMMA(3/4)^16

Value: .294339666459244136780924e-1

Number of terms: 512

Offset: 0

Sequence: 0, 1, -8, 12, 64, -210, -96, 1016, -512, -2043, 1680, 1092, 768,

1382, -8128, -2520, 4096, 14706, 16344, -39940, -13440, 12192, -8736,  
 68712, -6144, -34025, -11056, -50760, 65024, -102570, 20160, 227552, -  
 32768, 13104, -117648, -213360, -130752, 160526, 319520  
 -----

Sequence: A002408  
 Name: Expansion of 8-dimensional cusp form.

$$\frac{\pi^2}{64 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed: 1/64\*Pi^2/GAMMA(3/4)^8  
 Value: .303283935889314442179667e-1  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, -8, 28, -64, 126, -224, 344, -512, 757, -1008, 1332, -1792,  
 2198, -2752, 3528, -4096, 4914, -6056, 6860, -8064, 9632, -10656, 12168  
 , -14336, 15751, -17584, 20440, -22016, 24390, -28224, 29792, -32768,  
 37296, -39312, 43344, -48448, 50654, -54880, 61544, -64512, 68922  
 -----

Sequence: A002448  
 Name: Expansion of Jacobi theta function theta\_4(x).

$$\frac{\pi^{1/4} 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)}$$

Printed: 1/2\*Pi^(1/4)\*2^(3/4)/GAMMA(3/4)  
 Value: .913579138156116821407235  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 0, 0, 2, 0, 0, 0, 0, -2, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, -  
 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, -2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, -2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 , 0, 0, 0, 0, 0, 2, 0, 0, 0, 0  
 -----

Sequence: A002470  
 Name: Glaisher's function W(n).

$$\frac{\pi^{7/2}}{64 \Gamma\left(\frac{3}{4}\right)^{14}}$$

Printed:  $1/64*\text{Pi}^{(7/2)}/\text{GAMMA}(3/4)^{14}$   
 Value: .498736833596334249916923e-1  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, 4, -8, -48, 10, 224, 80, -448, -231, 40, -248, 1408, 1466, -  
 2240, -80, 1280, -4766, -924, 1944, -480, 9600, 6944, -2704, -8704, -\n  
 15525, 5864, -3984, -14080, 25498, 2240, 10816, 33792, -29760, -19064, 800,  
 11088, 1994, -54432, -11728, -4480

Sequence: A002512  
 Name: Expansion of  $\chi(x)^{10} / \phi(x)^4$  in powers of x where  $\phi()$ ,  $\chi()$  are  
 Ramanujan theta functions.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^4 \sqrt{2}}{\pi e^{\frac{5\pi}{12}}}$$

Printed:  $4/\text{Pi}*\text{GAMMA}(3/4)^4/\text{exp}(5/12*\text{Pi})*2^{(1/2)}$   
 Value: 1.09665532299256542051205  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 5, 10, 22, 40, 75, 130, 230, 382, 636, 1022, 1645, 2570, 4002,  
 6110, 9297, 13910, 20715, 30462, 44597, 64584, 93085, 132990, 189164  
 , 266992, 375192, 523800, 728285, 1006684, 1386043, 1898586, 2591120,  
 3519840, 4764736, 6423032

Sequence: A002513  
 Name: Number of \cubic partitions\ of n: expansion of  $\text{Product}_{\{k:0\}} 1/((1-x^{(2k)})^2*(1-x^{(2k-1)}))$  in powers of x.

$$\frac{2^{7/8} \Gamma\left(\frac{3}{4}\right)^2}{\sqrt{\pi} e^{\frac{\pi}{8}}}$$

Printed:  $2^{(7/8)}/\text{Pi}^{(1/2)}*\text{GAMMA}(3/4)^2/\text{exp}(1/8*\text{Pi})$   
 Value: 1.04917239823876126001522  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 3, 4, 9, 12, 23, 31, 54, 73, 118, 159, 246, 329, 489, 651, 940,  
 1242, 1751, 2298, 3177, 4142, 5630, 7293, 9776, 12584, 16659, 21320  
 , 27922, 35532, 46092, 58342, 75039, 94503, 120615, 151173, 191611,  
 239060, 301086, 374026, 468342, 579408, 721638, 889287

-----  
Sequence: A002611  
Name: Glaisher's function V(n).

$$\frac{\pi^{9/2}}{2048 \Gamma\left(\frac{3}{4}\right)^{18} e^{-\pi}}$$

Printed: 1/2048\*Pi^(9/2)/GAMMA(3/4)^18/exp(-Pi)  
Value: .502472745155403879748271e-1  
Number of terms: 51  
Offset: 1

Sequence: 0, 1, 4, -4, -32, -16, 56, 80, 192, 98, -740, -704, 96, -224, 2440,  
3520, -2624, -351, -780, -10632, 2688, 2960, -9496, 18176, 14208, -\  
3934, 12552, -9856, -24608, -9760, -2720, -25344, -35520, 31106, 34160,  
62844, 84576, 3120, -21880, -82272, 27520, -96768, -237316, 130240, -  
92832,  
37984, 305296, -183296, 37632, 208803

-----  
Sequence: A002612  
Name: Glaisher's function U(n).

$$\frac{\pi^{9/2}}{64 \Gamma\left(\frac{3}{4}\right)^{18} e^{-\pi}}$$

Printed: 1/64\*Pi^(9/2)/GAMMA(3/4)^18/exp(-Pi)  
Value: 1.60791278449729241519447  
Number of terms: 501  
Offset: 1

Sequence: 1, 12, 48, 16, -414, -960, 672, 4800, 2721, -9064, -8880, 6912, -  
2398, -13440, 29280, 30976, -10878, 57228, -9360, -252384, -53760,  
177600, -113952, 107520, 436131, -16488, 150624, 96768, -915678, -585600,  
-32640, 248832, 710400, -466408

-----  
Sequence: A002613  
Name: Glaisher's function J(n) (18 squares version).

$$\frac{9 \pi^{9/2}}{256 \Gamma\left(\frac{3}{4}\right)^{18} e^{-\pi}}$$

Printed: 9/256\*Pi^(9/2)/GAMMA(3/4)^18/exp(-Pi)

Value: 3.61780376511890793418755  
Number of terms: 501  
Offset: 1

Sequence: 1, 44, 432, -1136, 610, -5568, 6048, 11456, -3423, 26840, -79920,  
768, -5470, -77952, 263520, 61696, 73090, -150612, -84240, -692960, -\139776,  
1030080, -1025568, 1410048, -18525, -240680, 1355616, 10752, -128222,  
-3396480, -293760

---

Sequence: A003781  
Name: Expansion of theta series of  $\{E_7\}^*$  lattice in powers of  $q^{(1/2)}$ .

$$\frac{9 \pi^{7/4}}{16 \Gamma\left(\frac{3}{4}\right)^7}$$

Printed: 9/16\*Pi^(7/4)/GAMMA(3/4)^7  
Value: 1.00495874941839123035821  
Number of terms: 512  
Offset: 0

Sequence: 1, 0, 0, 56, 126, 0, 0, 576, 756, 0, 0, 1512, 2072, 0, 0, 4032, 4158,  
0, 0, 5544, 7560, 0, 0, 12096, 11592, 0, 0, 13664, 16704, 0, 0,  
24192, 24948, 0, 0, 27216, 31878, 0, 0, 44352, 39816, 0, 0, 41832, 55944, 0,  
0, 72576, 66584, 0, 0, 67536, 76104, 0, 0, 100800

---

Sequence: A003785  
Name: Coefficients of Jacobi cusp form of index 1 and weight 12.

$$\frac{9 \pi^{23/4}}{524288 \Gamma\left(\frac{3}{4}\right)^{23} e^{-3 \pi}}$$

Printed: 9/524288\*Pi^(23/4)/GAMMA(3/4)^23/exp(-3\*Pi)  
Value: 1.43181241977478320745155  
Number of terms: 53  
Offset: 3

Sequence: 1, 10, 0, 0, -88, -132, 0, 0, 1275, 736, 0, 0, -8040, -2880, 0, 0,  
24035, 13080, 0, 0, -14136, -54120, 0, 0, -128844, 115456, 0, 0,  
389520, 38016, 0, 0, -256410, -697950, 0, 0, -806520, 963160, 0, 0, 1892363,  
938400, 0, 0, -1227600, -2309120, 0, 0, -813450, -2813096, 0, 0

---

Sequence: A004008  
Name: Expansion of theta series of  $E_7$  lattice in powers of  $q^2$ .

$$\frac{9 \pi^{7/4}}{2 \Gamma\left(\frac{3}{4}\right)^7}$$

Printed:  $9/2*\pi^{(7/4)}/\text{GAMMA}(3/4)^7$

Value: 8.03966999534712984286566

Number of terms: 512

Offset: 0

Sequence: 1, 126, 756, 2072, 4158, 7560, 11592, 16704, 24948, 31878, 39816, 55944, 66584, 76104, 99792, 116928, 133182, 160272, 177660, 205128, 249480, 265104, 281736, 350784, 382536, 390726, 470232, 505568, 532800, 615384, 640080, 701568, 799092, 809424, 853776

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Sequence: A004009

Name: Expansion of Eisenstein series  $E_4(q)$  (alternate convention  $E_2(q)$ ); theta series of  $E_8$  lattice.

$$\frac{3 \pi^2}{4 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed:  $3/4*\pi^2/\text{GAMMA}(3/4)^8$

Value: 1.45576289226870932246240

Number of terms: 512

Offset: 0

Sequence: 1, 240, 2160, 6720, 17520, 30240, 60480, 82560, 140400, 181680, 272160, 319680, 490560, 527520, 743040, 846720, 1123440, 1179360, 1635120, 1646400, 2207520, 2311680, 2877120, 2920320, 3931200, 3780240, 4747680, 4905600, 6026880

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Sequence: A004011

Name: Theta series of  $D_4$  lattice; Fourier coefficients of Eisenstein series  $E_{\{\gamma,2\}}$ .

$$\frac{3 \pi}{2 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed:  $3/2*\pi/\text{GAMMA}(3/4)^4$

Value: 2.08980589452851528877636

Number of terms: 512

Offset: 0

Sequence: 1, 24, 24, 96, 24, 144, 96, 192, 24, 312, 144, 288, 96, 336, 192,

576, 24, 432, 312, 480, 144, 768, 288, 576, 96, 744, 336, 960, 192, 720  
, 576, 768, 24, 1152, 432, 1152, 312, 912, 480, 1344, 144, 1008, 768, 1056,  
288, 1872, 576, 1152, 96, 1368, 744, 1728, 336

---

Sequence: A004018

Name: Theta series of square lattice (or number of ways of writing n as a sum of 2 squares). Often denoted by r(n) or r\_2(n).

$$\frac{\sqrt{\pi}}{\Gamma\left(\frac{3}{4}\right)^2}$$

Printed: Pi^(1/2)/GAMMA(3/4)^2

Value: 1.18034059901609622604533

Number of terms: 512

Offset: 0

Sequence: 1, 4, 4, 0, 4, 8, 0, 0, 4, 4, 8, 0, 0, 8, 0, 0, 4, 8, 4, 0, 8, 0, 0, 0, 0, 12,  
8, 0, 0, 8, 0, 0, 4, 0, 8, 0, 4, 8, 0, 0, 8, 8, 0, 0, 0, 8  
, 0, 0, 0, 4, 12, 0, 8, 8, 0, 0, 0, 0, 8, 0, 0, 8, 0, 0, 4, 16, 0, 0, 8, 0, 0, 0, 4, 8, 8,  
0, 0, 0, 0, 0, 8, 4, 8, 0, 0, 16, 0, 0, 0, 8, 8, 0, 0, 0, 0  
, 0, 0, 8, 4, 0, 12, 8

---

Sequence: A004020

Name: Theta series of square lattice with respect to edge.

$$\frac{\sqrt{\pi} 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{4}}}$$

Printed: 1/2\*Pi^(1/2)/GAMMA(3/4)^2/exp(-1/4\*Pi)\*2^(3/4)

Value: 2.17692734616058828658820

Number of terms: 512

Offset: 0

Sequence: 2, 4, 2, 4, 4, 0, 6, 4, 0, 4, 4, 4, 2, 4, 0, 4, 8, 0, 4, 0, 2, 8, 4, 0, 4, 4,  
0, 4, 4, 4, 2, 8, 0, 0, 4, 0, 8, 4, 4, 4, 0, 0, 6, 4, 0, 4,  
8, 0, 4, 4, 0, 8, 0, 0, 0, 8, 6, 4, 4, 0, 4, 4, 0, 0, 4, 4, 8, 4, 0, 4, 4, 0, 6, 4, 0, 0,  
8, 0, 4, 4, 0, 12, 0, 4, 4, 0, 0, 4, 4, 0, 2, 8, 4, 4, 8, 0,  
0, 4, 0, 4, 4, 4, 4, 0

---

Sequence: A004024

Name: Theta series of b.c.c. lattice with respect to deep hole.

$$\frac{2^{7/8} \pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{5\pi}{8}}}$$

Printed: 1/4\*2^(7/8)\*Pi^(3/4)/GAMMA(3/4)^3/exp(-5/8\*Pi)

Value: 4.18877944863900408515960

Number of terms: 512

Offset: 0

Sequence: 4, 4, 8, 12, 4, 12, 12, 12, 16, 16, 8, 8, 28, 12, 20, 24, 8, 16, 28, 12, 16, 28, 20, 32, 20, 16, 16, 32, 20, 24, 28, 8, 36, 44, 12, 32, 36, 16, 24, 20, 28, 20, 56, 28, 16, 40, 20, 40, 44, 12, 36, 40, 20, 32, 40, 16, 24, 60, 32, 36, 40, 24, 32, 60, 24, 40, 24, 20, 60, 36, 24, 32, 56, 32

Sequence: A004402

Name: Expansion of  $(\text{Sum}_{\{n=-\text{inf}..\text{inf}\}} x^{(n^2)})^{(-1)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)}{\pi^{1/4}}$$

Printed: 1/Pi^(1/4)\*GAMMA(3/4)

Value: .920441787835590983934918

Number of terms: 512

Offset: 0

Sequence: 1, -2, 4, -8, 14, -24, 40, -64, 100, -154, 232, -344, 504, -728, 1040, -1472, 2062, -2864, 3948, -5400, 7336, -9904, 13288, -17728, 23528, -31066, 40824, -53408, 69568, -90248, 116624, -150144, 192612, -246256, 313808

Sequence: A004403

Name: Expansion of  $1/\text{theta}_3(q)^2$  in powers of  $q$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^2}{\sqrt{\pi}}$$

Printed: 1/Pi^(1/2)\*GAMMA(3/4)^2

Value: .847213084793979086606503

Number of terms: 512

Offset: 0

Sequence: 1, -4, 12, -32, 76, -168, 352, -704, 1356, -2532, 4600, -8160, 14176, -24168, 40512, -66880, 108876, -174984, 277932, -436640, 679032, -1046016, 1597088, -2418240, 3632992, -5417708, 8022840, -11802176,

17252928, -25070568, 36223424, -52053760, 74414412

---

Sequence: A004404

Name: Expansion of  $(\text{Sum}_{\{n=-\text{inf}..\text{inf}\}} x^{(n^2)})^{(-3)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^3}{\pi^{3/4}}$$

Printed:  $1/\text{Pi}^{(3/4)}*\text{GAMMA}(3/4)^3$

Value: .779810326445476252442255

Number of terms: 512

Offset: 0

Sequence: 1, -6, 24, -80, 234, -624, 1552, -3648, 8184, -17654, 36816, -74544, 147056, -283440, 535008, -990912, 1803882, -3232224, 5707624, -9943536, 17106960, -29088352, 48922320, -81438528, 134261584, -219336630, 355242288

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Sequence: A004405

Name: Expansion of  $(\text{Sum}_{\{n=-\text{inf}..\text{inf}\}} x^{(n^2)})^{(-4)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^4}{\pi}$$

Printed:  $1/\text{Pi}*\text{GAMMA}(3/4)^4$

Value: .717770011046129997821197

Number of terms: 512

Offset: 0

Sequence: 1, -8, 40, -160, 552, -1712, 4896, -13120, 33320, -80872, 188784, -425952, 932640, -1988080, 4137024, -8422848, 16810536, -32943760, 63482760, -120440608, 225217904, -415498496, 756920160, -1362645440, 2425895712

---

Sequence: A004406

Name: Expansion of  $(\text{Sum}_{\{n=-\text{inf}..\text{inf}\}} x^{(n^2)})^{(-5)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^5}{\pi^{5/4}}$$

Printed:  $1/\text{Pi}^{(5/4)}*\text{GAMMA}(3/4)^5$

Value: .660665512222071784397863

Number of terms: 512

Offset: 0

Sequence: 1, -10, 60, -280, 1110, -3912, 12600, -37760, 106620, -286290,  
736184, -1822920, 4365800, -10149320, 22971120, -50744448, 109643350, -\232145040, 482403060, -985229640, 1980034104, -3920000400, 7652388280,  
-14742829440

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Sequence: A004407

Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-6).

$$\frac{\Gamma\left(\frac{3}{4}\right)^6}{\pi^{3/2}}$$

Printed: 1/Pi^(3/2)\*GAMMA(3/4)^6  
Value: .608104145231000239482951  
Number of terms: 512  
Offset: 0

Sequence: 1, -12, 84, -448, 2004, -7896, 28224, -93312, 289236, -848972,  
2377704, -6391872, 16571968, -41599320, 101430144, -240877440,  
558440916,  
-1266406680, 2814053908, -6136337088, 13148606184, -27717527552

-----

Sequence: A004408

Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-7).

$$\frac{\Gamma\left(\frac{3}{4}\right)^7}{\pi^{7/4}}$$

Printed: 1/Pi^(7/4)\*GAMMA(3/4)^7  
Value: .559724466626655729275595  
Number of terms: 512  
Offset: 0

Sequence: 1, -14, 112, -672, 3346, -14560, 57120, -206208, 694960, -  
2209774, 6683040, -19345760, 53874912, -144936288, 377965760, -  
958231680,  
2367566866, -5713057728, 13488657168, -31210552800, 70873262880, -  
158145658560

-----

Sequence: A004409

Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-8).

$$\frac{\Gamma\left(\frac{3}{4}\right)^8}{\pi^2}$$

Printed: 1/Pi^2\*GAMMA(3/4)^8  
 Value: .515193788757161579089232  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -16, 144, -960, 5264, -25056, 106944, -418176, 1520784, -  
 5201232, 16871648, -52252992, 155341248, -445226848, 1234726272, -  
 3323392128,  
 8704504976, -22234655520, 55498917840, -135595345600, 324759439584  
 -----

Sequence: A004410  
 Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-9).

$$\frac{\Gamma\left(\frac{3}{4}\right)^9}{\pi^{9/4}}$$

Printed: 1/Pi^(9/4)\*GAMMA(3/4)^9  
 Value: .474205892005433597769388  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -18, 180, -1320, 7902, -40824, 188232, -792000, 3088980, -  
 11297546, 39090312, -128849976, 406865880, -1236379320, 3629385936, -\  
 10324840512, 28542038238, -76852151280, 201967043260, -518957929080,  
 1305848905416  
 -----

Sequence: A004411  
 Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-10).

$$\frac{\Gamma\left(\frac{3}{4}\right)^{10}}{\pi^{5/2}}$$

Printed: 1/Pi^(5/2)\*GAMMA(3/4)^10  
 Value: .436478919039652482329247  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -20, 220, -1760, 11420, -63624, 315040, -1418560, 5903260, -  
 22976820, 84413912, -294841120, 984745120, -3159938760, 9780562880, -\  
 29296914112, 85169213340, -240882506920, 664216884540, -

1788966694240, 4714033526616, -12170584419840, 30826269009760

---

Sequence: A004412

Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-11).

$$\frac{\Gamma\left(\frac{3}{4}\right)^{11}}{\pi^{11/4}}$$

Printed: 1/Pi^(11/4)\*GAMMA(3/4)^11

Value: .401753436593403904121315

Number of terms: 512

Offset: 0

Sequence: 1, -22, 264, -2288, 15994, -95568, 505648, -2425280, 10721832, -  
44229350, 171861360, -633713808, 2230733648, -7532979344, 24502989984, -  
77036477760, 234785552122, -695409096096, 2006117554936, -  
5647472566736

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Sequence: A004413

Name: Expansion of ( Sum\_{n = -infinity..infinity} x^(n^2) )^(-12).

$$\frac{\Gamma\left(\frac{3}{4}\right)^{12}}{\pi^3}$$

Printed: 1/Pi^3\*GAMMA(3/4)^12

Value: .369790651447125431304517

Number of terms: 512

Offset: 0

Sequence: 1, -24, 312, -2912, 21816, -139152, 783328, -3986112, 18650424, -  
81251896, 332798544, -1291339296, 4776117216, -16922753616, -  
57683178432,  
-189821722688, 604884735288, -1871370360240, 5633654421720

---

Sequence: A004414

Name: Expansion of (Sum\_{n=-inf..inf} x^(n^2))^(-13).

$$\frac{\Gamma\left(\frac{3}{4}\right)^{13}}{\pi^{13/4}}$$

Printed: 1/Pi^(13/4)\*GAMMA(3/4)^13

Value: .340370768342880002295713  
Number of terms: 512  
Offset: 0

Sequence: 1, -26, 364, -3640, 29094, -197288, 1177176, -6333184, 31258604,  
-143374530, 617193304, -2513060264, 9739727816, -36115518376,  
128680223152, -442158402816, 1469734751654, -4738671343952,  
14853923411652

---

Sequence: A004415  
Name: Expansion of  $(\sum_{n=-\infty.. \infty} x^{(n^2)})^{(-14)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{14}}{\pi^{7/2}}$$

Printed:  $1/\text{Pi}^{(7/2)}*\text{GAMMA}(3/4)^{14}$   
Value: .313291478540494243261938  
Number of terms: 512  
Offset: 0

Sequence: 1, -28, 420, -4480, 38052, -273336, 1723008, -9770240, 50722980,  
-244273820, 1102294984, -4698110592, 19034512000, -73696070840,  
273868321536, -980502270720, 3392689809572, -11376760267320,  
37060195850020

---

Sequence: A004416  
Name: Expansion of  $(\sum_{n=-\infty.. \infty} x^{(n^2)})^{(-15)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{15}}{\pi^{15/4}}$$

Printed:  $1/\text{Pi}^{(15/4)}*\text{GAMMA}(3/4)^{15}$   
Value: .288366568621468207943311  
Number of terms: 512  
Offset: 0

Sequence: 1, -30, 480, -5440, 48930, -371136, 2464320, -14688000,  
80001120, -403533790, 1904433984, -8477603520, 35829727680, -  
144548556480,  
559157308800, -2081866609920, 7484792950050, -26057409056640,  
88057506412320

---

Sequence: A004417  
Name: Expansion of  $(\sum x^{(n^2)}, n = -\infty .. \infty )^{(-16)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{16}}{\pi^4}$$

Printed: 1/Pi^4\*GAMMA(3/4)^16  
 Value: .265424639973958828691378  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -32, 544, -6528, 61984, -495040, 3453312, -21581568,  
 123040288, -648624288, 3194776000, -14823993472, 65231647104, -  
 273714726080,  
 1100198199040, -4252621927680, 15859616674336, -57229459033664  
 -----

Sequence: A004418  
 Name: Expansion of (Sum\_{n=-inf..inf} x^(n^2))^(-17).

$$\frac{\Gamma\left(\frac{3}{4}\right)^{17}}{\pi^{17/4}}$$

Printed: 1/Pi^(17/4)\*GAMMA(3/4)^17  
 Value: .244307930153248733821531  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -34, 612, -7752, 77486, -649944, 4751976, -31070016,  
 185025348, -1017375098, 5220022312, -25201899288, 115265410488, -  
 502210951832,  
 2094181357968, -8390590348992, 32410328691374, -121046064563376  
 -----

Sequence: A004419  
 Name: Expansion of (Sum\_{n=-inf..inf} x^(n^2))^(-18).

$$\frac{\Gamma\left(\frac{3}{4}\right)^{18}}{\pi^{9/2}}$$

Printed: 1/Pi^(9/2)\*GAMMA(3/4)^18  
 Value: .224871228012668952154030  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -36, 684, -9120, 95724, -841320, 6433248, -43918272,  
 272670444, -1561033348, 8329222584, -41772509280, 198265106400, -

895619289384,  
3868763174208, -16044584545344, 64103055405804, -247461482137032

---

Sequence: A004420

Name: Expansion of  $(\sum_{n=-\infty}^{\infty} x^{(n^2)})^{(-19)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{19}}{\pi^{19/4}}$$

Printed:  $1/\text{Pi}^{(19/4)}*\text{GAMMA}(3/4)^{19}$

Value: .206980875144765839633836

Number of terms: 512

Offset: 0

Sequence: 1, -38, 760, -10640, 117002, -1075248, 8582224, -61061440,  
394559320, -2348001494, 13008061200, -67666510320, 332809029680, -\ 1556541579760,  
6955832361824, -29820933412800, 123079426294922, -490508040685920

---

Sequence: A004421

Name: Expansion of  $(\sum_{n=-\infty}^{\infty} x^{(n^2)})^{(-20)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{20}}{\pi^5}$$

Printed:  $1/\text{Pi}^5*\text{GAMMA}(3/4)^{20}$

Value: .190513846766023506247049

Number of terms: 512

Offset: 0

Sequence: 1, -40, 840, -12320, 141640, -1358448, 11297440, -83631680,  
561539400, -3468363400, 19922193200, -107343635040, 546373245600, -\ 2642351627440,  
12200693947200, -54007656632000, 230002160331080, -945228781171920

---

Sequence: A004422

Name: Expansion of  $(\sum_{n=-\infty}^{\infty} x^{(n^2)})^{(-21)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{21}}{\pi^{21/4}}$$

Printed:  $1/\text{Pi}^{(21/4)}*\text{GAMMA}(3/4)^{21}$

Value: .175356905724754499646487  
Number of terms: 512  
Offset: 0

Sequence: 1, -42, 924, -14168, 169974, -1698312, 14692216, -112987776,  
787175004, -5039316786, 29971442424, -167060546184, 878920016296, -\  
4390113366408, 20920981191792, -95515527307648, 419275600889334, -  
1775001330567696

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Sequence: A004423  
Name: Expansion of  $(\sum_{n=-\infty.. \infty} x^{(n^2)})^{(-22)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{22}}{\pi^{11/2}}$$

Printed: 1/Pi^(11/2)\*GAMMA(3/4)^22  
Value: .161405823814610211185230  
Number of terms: 512  
Offset: 0

Sequence: 1, -44, 1012, -16192, 202356, -2102936, 18896064, -150747520,  
1088265332, -7211641580, 44356933544, -255472920256, 1387689358528, -\  
7151069205016, 35134409940608, -165273439140480, 747047401948276, -  
3254796172584792

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Sequence: A004424  
Name: Expansion of  $(\sum_{n=-\infty.. \infty} x^{(n^2)})^{(-23)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{23}}{\pi^{23/4}}$$

Printed: 1/Pi^(23/4)\*GAMMA(3/4)^23  
Value: .148564665038996230625860  
Number of terms: 512  
Offset: 0

Sequence: 1, -46, 1104, -18400, 239154, -2581152, 24056160, -198823040,  
1485433104, -10177345486, 64663512288, -384402300960, 2153523131040, -\  
\  
11437761254432, 57880610587200, -280265903825280, 1303272560982834,  
-5838468742907712

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Sequence: A004425  
Name: Expansion of  $(\sum x^{(n^2)}, n = -\infty .. \infty )^{(-24)}$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^{24}}{\pi^6}$$

Printed: 1/Pi^6\*GAMMA(3/4)^24  
 Value: .136745125897689409841427  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -48, 1200, -20800, 280752, -3142560, 30338880, -259459200,  
 2003790000, -14178640368, 92960115360, -569803615680, 3289122824000, -  
 \ 17987650183200, 93669997008000, -466466351287680, 2229627536828592,  
 -10261752523778400

Sequence: A004670  
 Name: Theta series of extremal even unimodular lattice in dimension 32.

$$\frac{9 \pi^8}{64 \Gamma\left(\frac{3}{4}\right)^{32}}$$

Printed: 9/64\*Pi^8/GAMMA(3/4)^32  
 Value: 1.99608973635085258466343  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 0, 146880, 64757760, 4844836800, 137695887360,  
 212155283200, 21421110804480, 158757684004800, 928986331545600,  
 4512164186816640,  
 18847854517248000, 69519016873985280, 230952108679004160

Sequence: A005369  
 Name: a(n) = 1 if n is of the form m(m+1), else 0.

$$\frac{2^{3/4} \pi^{1/4}}{4 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/4)/GAMMA(3/4)/exp(-1/4\*Pi)  
 Value: 1.00186744924412016730583  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0,

0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0

---

Sequence: A005758  
 Name: Number of partitions of n into parts of 12 kinds.

$$\frac{16 \Gamma\left(\frac{3}{4}\right)^{12} \sqrt{2}}{\pi^3 e^{\frac{\pi}{2}}}$$

Printed: 16/Pi^3\*GAMMA(3/4)^12/exp(1/2\*Pi)\*2^(1/2)  
 Value: 1.73941307890855586082155  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 12, 90, 520, 2535, 10908, 42614, 153960, 521235, 1669720,  
 5098938, 14931072, 42124380, 114945780, 304351020, 784087848,  
 1970043621,  
 4837060800, 11626305640, 27398234760, 63388751544, 144156086776,  
 322590526350

---

Sequence: A005798  
 Name: Expansion of (theta\_2(q)/theta\_3(q))^4/16 in powers of q.

$$\frac{1}{32}$$

Printed: 1/32  
 Value: .312500000000000000000000e-1  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, -8, 44, -192, 718, -2400, 7352, -20992, 56549, -145008,  
 356388, -844032, 1934534, -4306368, 9337704, -19771392, 40965362, -  
 83207976  
 , 165944732, -325393024, 628092832, -1194744096, 2241688744, -  
 4152367104, 7599231223, -13749863984

---

Sequence: A005869  
 Name: Theta series of b.c.c. lattice with respect to short edge.

$$\frac{\pi^{3/4} 2^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{3\pi}{8}}}$$

Printed:  $1/2*\pi^{(3/4)}/\text{GAMMA}(3/4)^3/\exp(-3/8*\pi)*2^{(1/8)}$

Value: 2.27117659772746085901381

Number of terms: 512

Offset: 0

Sequence: 2, 6, 6, 8, 12, 6, 12, 18, 6, 14, 18, 12, 18, 18, 12, 12, 30, 18, 14,  
24, 6, 30, 30, 12, 24, 24, 18, 24, 30, 12, 26, 42, 24, 12, 30, 18,  
24, 48, 18, 36, 24, 18, 36, 30, 24, 26, 48, 18, 30, 48, 12, 36, 54, 12, 24, 30,  
36, 48, 42, 30, 24, 54, 18, 26, 36, 30, 54, 54, 18, 24

Sequence: A005875

Name: Theta series of simple cubic lattice; also number of ways of writing a nonnegative integer n as a sum of 3 squares (zero being allowed).

$$\frac{\pi^{3/4}}{\Gamma\left(\frac{3}{4}\right)^3}$$

Printed:  $\pi^{(3/4)}/\text{GAMMA}(3/4)^3$

Value: 1.28236311585945539900014

Number of terms: 512

Offset: 0

Sequence: 1, 6, 12, 8, 6, 24, 24, 0, 12, 30, 24, 24, 8, 24, 48, 0, 6, 48, 36, 24,  
24, 48, 24, 0, 24, 30, 72, 32, 0, 72, 48, 0, 12, 48, 48, 48, 30,  
24, 72, 0, 24, 96, 48, 24, 24, 72, 48, 0, 8, 54, 84, 48, 24, 72, 96, 0, 48, 48, 24,  
72, 0, 72, 96, 0, 6, 96, 96, 24, 48, 96, 48, 0, 36, 48, 120

Sequence: A005876

Name: Theta series of cubic lattice with respect to edge.

$$\frac{\pi^{3/4} 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{4}}}$$

Printed:  $1/2*\pi^{(3/4)}/\text{GAMMA}(3/4)^3/\exp(-1/4*\pi)*2^{(3/4)}$

Value: 2.36508965035106636087251

Number of terms: 512

Offset: 0

Sequence: 2, 8, 10, 8, 16, 16, 10, 24, 16, 8, 32, 24, 18, 24, 16, 24, 32, 32, 16,

32, 34, 16, 48, 16, 16, 56, 32, 24, 32, 40, 26, 48, 48, 16, 32,  
 32, 32, 56, 48, 24, 64, 32, 26, 56, 16, 40, 64, 64, 16, 40, 48, 32, 80, 32, 32,  
 64, 50, 40, 48, 48, 48, 56, 48, 16, 64, 72, 32, 88, 32, 24

---

Sequence: A005877

Name: Theta series of cubic lattice with respect to square.

$$\frac{\pi^{3/4} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{2}}}$$

Printed:  $1/2 * \pi^{3/4} / \text{GAMMA}(3/4)^3 / \exp(-1/2 * \pi) * 2^{1/2}$

Value: 4.36198529497536079796160

Number of terms: 512

Offset: 0

Sequence: 4, 8, 8, 16, 12, 8, 24, 16, 16, 24, 16, 16, 28, 32, 8, 32, 32, 16, 40,  
 16, 16, 40, 40, 32, 36, 16, 24, 48, 32, 24, 40, 48, 16, 56, 32, 16  
 , 64, 40, 32, 32, 36, 40, 48, 48, 32, 48, 48, 16, 80, 40, 24, 80

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Sequence: A005878

Name: Theta series of cubic lattice with respect to deep hole.

$$\frac{2 \pi^{3/4} 2^{1/8}}{\Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{3\pi}{8}}}$$

Printed:  $2 * \pi^{3/4} / \text{GAMMA}(3/4)^3 / \exp(-3/8 * \pi) * 2^{1/8}$

Value: 9.08470639090984343605524

Number of terms: 512

Offset: 0

Sequence: 8, 24, 24, 32, 48, 24, 48, 72, 24, 56, 72, 48, 72, 72, 48, 48, 120, 72,  
 56, 96, 24, 120, 120, 48, 96, 96, 72, 96, 120, 48, 104, 168, 96,  
 48, 120, 72, 96, 192, 72, 144, 96, 72, 144, 120, 96, 104, 192, 72, 120, 192, 48,  
 144, 216, 48, 96, 120, 144, 192, 168, 120, 96, 216, 72

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Sequence: A005879

Name: Theta series of D<sub>4</sub> lattice with respect to deep hole.

$$\frac{\sqrt{2} \pi}{\Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed:  $2^{(1/2)*\text{Pi}/\text{GAMMA}(3/4)^4/\text{exp}(-1/2*\text{Pi})$   
 Value: 9.47802534092356356213627  
 Number of terms: 512  
 Offset: 0

Sequence: 8, 32, 48, 64, 104, 96, 112, 192, 144, 160, 256, 192, 248, 320, 240,  
 256, 384, 384, 304, 448, 336, 352, 624, 384, 456, 576, 432, 576, 640  
 , 480, 496, 832, 672, 544, 768, 576, 592, 992, 768, 640, 968, 672, 864, 960,  
 720, 896, 1024, 960, 784, 1248, 816, 832, 1536

---

Sequence: A005880  
 Name: Theta series of D\_4 lattice with respect to edge.

$$\frac{\sqrt{2} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed:  $1/4*2^{(1/2)*\text{Pi}/\text{GAMMA}(3/4)^4/\text{exp}(-1/2*\text{Pi})$   
 Value: 2.36950633523089089053407  
 Number of terms: 512  
 Offset: 0

Sequence: 2, 8, 12, 16, 26, 24, 28, 48, 36, 40, 64, 48, 62, 80, 60, 64, 96, 96,  
 76, 112, 84, 88, 156, 96, 114, 144, 108, 144, 160, 120, 124, 208,  
 168, 136, 192, 144, 148, 248, 192, 160, 242, 168, 216, 240

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Sequence: A005883  
 Name: Theta series of square lattice with respect to deep hole.

$$\frac{\sqrt{\pi} 2^{3/4}}{\Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{4}}}$$

Printed:  $\text{Pi}^{(1/2)}/\text{GAMMA}(3/4)^2/\text{exp}(-1/4*\text{Pi})*2^{(3/4)}$   
 Value: 4.35385469232117657317640  
 Number of terms: 512  
 Offset: 0

Sequence: 4, 8, 4, 8, 8, 0, 12, 8, 0, 8, 8, 8, 4, 8, 0, 8, 16, 0, 8, 0, 4, 16, 8, 0, 8,  
 8, 0, 8, 8, 4, 16, 0, 0, 8, 0, 16, 8, 8, 8, 0, 0, 12, 8,  
 0, 8, 16, 0, 8, 8, 0, 16, 0, 0, 0, 16, 12, 8, 8, 0, 8, 8, 0, 0, 8, 8, 16, 8, 0, 8, 8, 0,  
 12, 8, 0, 0, 16, 0, 8, 8, 0, 24, 0, 8, 8, 0, 0, 8, 8, 0, 4,  
 16, 8, 8, 16, 0, 0

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Sequence: A005884

Name: Theta series of f.c.c. lattice with respect to edge.

$$\frac{\pi^{3/4} \sqrt{2}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{2}}}$$

Printed:  $1/4 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/2 * \pi) * 2^{(1/2)}$

Value: 2.18099264748768039898080

Number of terms: 512

Offset: 0

Sequence: 2, 4, 4, 8, 6, 4, 12, 8, 8, 12, 8, 8, 14, 16, 4, 16, 16, 8, 20, 8, 8, 20, 20, 16, 18, 8, 12, 24, 16, 12, 20, 24, 8, 28, 16, 8, 32, 20, 16, 16, 18, 20, 24, 24, 16, 24, 24, 8, 40, 20, 12, 40, 16, 12, 20, 24, 16, 40, 36, 16, 22, 24, 24, 32, 16, 12, 40, 32, 24, 28, 16, 24, 40, 28, 12

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Sequence: A005886

Name: Theta series of f.c.c. lattice with respect to tetrahedral hole.

$$\frac{\pi^{3/4} 2^{1/8}}{\Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{3\pi}{8}}}$$

Printed:  $\pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-3/8 * \pi) * 2^{(1/8)}$

Value: 4.54235319545492171802762

Number of terms: 512

Offset: 0

Sequence: 4, 12, 12, 16, 24, 12, 24, 36, 12, 28, 36, 24, 36, 36, 24, 24, 60, 36, 28, 48, 12, 60, 60, 24, 48, 48, 36, 48, 60, 24, 52, 84, 48, 24, 60, 36, 48, 96, 36, 72, 48, 36, 72, 60, 48, 52, 96, 36, 60, 96, 24, 72, 108, 24, 48, 60, 72, 96, 84, 60, 48, 108, 36, 52, 72, 60, 108, 108, 36, 48, 108

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Sequence: A006352

Name: Coefficients in expansion of Eisenstein series E<sub>2</sub> (also called E<sub>1</sub> or G<sub>2</sub>).

$$\frac{3}{\pi}$$

Printed: 3/Pi

Value: .954929658551372014613304

Number of terms: 512

Offset: 0

Sequence: 1, -24, -72, -96, -168, -144, -288, -192, -360, -312, -432, -288, -

672, -336, -576, -576, -744, -432, -936, -480, -1008, -768, -864, -576  
, -1440, -744, -1008, -960, -1344, -720, -1728, -768, -1512, -1152, -1296, -  
1152, -2184, -912, -1440, -1344, -2160, -1008, -2304, -1056, -2016, -1872,  
-1728

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Sequence: A006922

Name: Expansion of  $1/\eta(q)^{24}$ ; Fourier coefficients of  $T_{\{14\}}$ .

$$\frac{512 \Gamma\left(\frac{3}{4}\right)^{24}}{\pi^6 e^\pi}$$

Printed:  $512/\pi^6 * \text{GAMMA}(3/4)^{24} / \exp(\pi)$

Value: 3.02555785907814197763859

Number of terms: 512

Offset: -1

Sequence: 1, 24, 324, 3200, 25650, 176256, 1073720, 5930496, 30178575,  
143184000, 639249300, 2705114880, 10914317934, 42189811200,  
156883829400,  
563116739584, 1956790259235, 6599620022400, 21651325216200,  
69228721526400, 216108718571250, 659641645039360, 1971466420726656

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Sequence: A006950

Name: G.f.:  $\text{Product}_{\{k:=1\}} (1 + x^{(2*k - 1)}) / (1 - x^{(2*k)})$ .

$$\frac{2^{3/4} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{8}}}$$

Printed:  $2^{(3/4)}/\pi^{(1/4)} * \text{GAMMA}(3/4) / \exp(1/8 * \pi)$

Value: 1.04525385952548117077384

Number of terms: 512

Offset: 0

Sequence: 1, 1, 1, 2, 3, 4, 5, 7, 10, 13, 16, 21, 28, 35, 43, 55, 70, 86, 105,  
130, 161, 196, 236, 287, 350, 420, 501, 602, 722, 858, 1016, 1206,  
1431, 1687, 1981, 2331, 2741, 3206, 3740, 4368, 5096, 5922, 6868, 7967,  
9233, 10670, 12306, 14193, 16357, 18803, 21581

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Sequence: A007096

Name: Expansion of  $\theta_3 / \theta_4$ .

$$2^{1/4}$$

Printed:  $2^{(1/4)}$

Value: 1.18920711500272106671750  
Number of terms: 512  
Offset: 0

Sequence: 1, 4, 8, 16, 32, 56, 96, 160, 256, 404, 624, 944, 1408, 2072, 3008,  
4320, 6144, 8648, 12072, 16720, 22976, 31360, 42528, 57312, 76800,  
102364, 135728, 179104, 235264, 307672, 400704, 519808, 671744, 864960,  
1109904, 1419456, 1809568, 2299832

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Sequence: A007191  
Name: McKay-Thompson series of class 2B for the Monster group with  $a(0) = -24$ .

$$\frac{8}{e^\pi}$$

Printed: 8/exp(Pi)  
Value: .345711346110177998195343  
Number of terms: 512  
Offset: -1

Sequence: 1, -24, 276, -2048, 11202, -49152, 184024, -614400, 1881471, -  
5373952, 14478180, -37122048, 91231550, -216072192, 495248952, -  
1102430208,  
2390434947, -5061476352, 10487167336, -21301241856, 42481784514, -  
83300614144

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Sequence: A007245  
Name: McKay-Thompson series of class 3C for the Monster group.

$$\frac{12}{e^{\frac{2\pi}{3}}}$$

Printed: 12/exp(2/3\*Pi)  
Value: 1.47773653284159760369840  
Number of terms: 512  
Offset: 0

Sequence: 1, 248, 4124, 34752, 213126, 1057504, 4530744, 17333248,  
60655377, 197230000, 603096260, 1749556736, 4848776870, 12908659008,  
33161242504  
, 82505707520, 199429765972, 469556091240, 1079330385764,  
2426800117504, 5346409013164

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Sequence: A007246  
Name: McKay-Thompson series of class 2B for the Monster group.

$$\frac{32}{e^\pi}$$

Printed: 32/exp(Pi)  
Value: 1.38284538444071199278137  
Number of terms: 512  
Offset: -1

Sequence: 1, 0, 276, -2048, 11202, -49152, 184024, -614400, 1881471, -  
5373952, 14478180, -37122048, 91231550, -216072192, 495248952, -  
1102430208,  
2390434947, -5061476352, 10487167336, -21301241856, 42481784514, -  
83300614144

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Sequence: A007247  
Name: McKay-Thompson series of class 4B for the Monster group.

$$\frac{18\sqrt{2}}{e^{\frac{\pi}{2}}}$$

Printed: 18/exp(1/2\*Pi)\*2^(1/2)  
Value: 5.29175009188117441410428  
Number of terms: 512  
Offset: 0

Sequence: 1, 52, 834, 4760, 24703, 94980, 343998, 1077496, 3222915,  
8844712, 23381058, 58359168, 141244796, 327974700, 742169724,  
1627202744,  
3490345477, 7301071680, 14987511560, 30138820888, 59623576440,  
115928963656

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Sequence: A007248  
Name: McKay-Thompson series of class 4C for the Monster group.

$$\frac{6\sqrt{2}}{e^{\frac{\pi}{2}}}$$

Printed: 6/exp(1/2\*Pi)\*2^(1/2)  
Value: 1.76391669729372480470143  
Number of terms: 512  
Offset: 0

Sequence: 1, 20, -62, 216, -641, 1636, -3778, 8248, -17277, 34664, -66878,  
125312, -229252, 409676, -716420, 1230328, -2079227, 3460416, -5677816,  
9198424, -14729608, 23328520, -36567242, 56774712, -87369461,  
133321908, -201825396, 303248408, -452431503

-----  
Sequence: A007249

Name: McKay-Thompson series of class 4D for the Monster group.

$$\frac{2\sqrt{2}}{e^{\frac{\pi}{2}}}$$

Printed: 2/exp(1/2\*Pi)\*2^(1/2)

Value: .587972232431241601567142

Number of terms: 512

Offset: 0

Sequence: 1, -12, 66, -232, 639, -1596, 3774, -8328, 17283, -34520, 66882, -125568, 229244, -409236, 716412, -1231048, 2079237, -3459264, 5677832, -9200232, 14729592, -23325752, 36567222, -56778888, 87369483, -133315692

-----  
Sequence: A007259

Name: Expansion of Product\_{m=1} (1 + q^m)^(-8).

$$\frac{2}{e^{\frac{\pi}{3}}}$$

Printed: 2/exp(1/3\*Pi)

Value: .701839614356821935131478

Number of terms: 512

Offset: 0

Sequence: 1, -8, 28, -64, 134, -288, 568, -1024, 1809, -3152, 5316, -8704, 13990, -22208, 34696, -53248, 80724, -121240, 180068, -264448, 384940, -556064, 796760, -1132544, 1598789, -2243056, 3127360, -4333568, 5971922, -8188096, 11170160, -15163392, 20491033, -27572936

-----  
Sequence: A007267

Name:

Expansion of  $16 * (1 + k^2)^4 / (k * k'^2)^2$  in powers of q where k is the Jacobian elliptic modulus, k' the complementary modulus and q is the nome.

$$\frac{648}{e^{\pi}}$$

Printed: 648/exp(Pi)

Value: 28.0026190349244178538228

Number of terms: 512

Offset: -1

Sequence: 1, 104, 4372, 96256, 1240002, 10698752, 74428120, 431529984, 2206741887, 10117578752, 42616961892, 166564106240, 611800208702, 2125795885056, 7040425608760, 22327393665024, 68134255043715, 200740384538624

---

Sequence: A007331

Name: Fourier coefficients of  $E_{\infty,4}$ .

$$\frac{\pi^2}{32 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed:  $1/32 * \pi^2 / \text{GAMMA}(3/4)^8$

Value: .606567871778628884359334e-1

Number of terms: 512

Offset: 0

Sequence: 0, 1, 8, 28, 64, 126, 224, 344, 512, 757, 1008, 1332, 1792, 2198, 2752, 3528, 4096, 4914, 6056, 6860, 8064, 9632, 10656, 12168, 14336, 15751, 17584, 20440, 22016, 24390, 28224, 29792, 32768, 37296, 39312, 43344, 48448, 50654, 54880, 61544, 64512

---

Sequence: A008410

Name:  $a(0) = 1, a(n) = 480 * \sigma_7(n)$ .

$$\frac{9 \pi^4}{16 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed:  $9/16 * \pi^4 / \text{GAMMA}(3/4)^{16}$

Value: 2.11924559850655778482265

Number of terms: 512

Offset: 0

Sequence: 1, 480, 61920, 1050240, 7926240, 37500480, 135480960, 395301120, 1014559200, 2296875360, 4837561920, 9353842560, 17342613120, 30119288640, 50993844480, 82051050240, 129863578080, 196962563520

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Sequence: A008411

Name: Theta series of direct sum of 3 copies of  $E_8$  lattice (the Niemeier lattice of type  $E_8^3$ ).

$$\frac{27 \pi^6}{64 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 27/64\*Pi^6/GAMMA(3/4)^24  
 Value: 3.08511910190963849070468  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 720, 179280, 16954560, 396974160, 4632858720, 34413301440,  
 187477879680, 814940600400, 2975469665040, 9486467837280,  
 27053330840640,  
 70485969919680, 169930679355360, 384163875688320, 820167497170560,  
 1668890801059920, 3249626139960480, 6096884624994960

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Sequence: A008438  
 Name: Sum of divisors of 2\*n + 1.

$$\frac{\sqrt{2} \pi}{8 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed: 1/8\*2^(1/2)\*Pi/GAMMA(3/4)^4/exp(-1/2\*Pi)  
 Value: 1.18475316761544544526703  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, 6, 8, 13, 12, 14, 24, 18, 20, 32, 24, 31, 40, 30, 32, 48, 48, 38,  
 56, 42, 44, 78, 48, 57, 72, 54, 72, 80, 60, 62, 104, 84, 68, 96,  
 72, 74, 124, 96, 80, 121, 84, 108, 120, 90, 112, 128, 120, 98, 156, 102, 104,  
 192, 108, 110, 152, 114, 144, 182, 144, 133, 168

-----

Sequence: A008439  
 Name: Expansion of Jacobi theta constant theta\_2^5 /32.

$$\frac{\pi^{5/4} 2^{7/8}}{16 \Gamma\left(\frac{3}{4}\right)^5 e^{-\frac{5\pi}{8}}}$$

Printed: 1/16\*Pi^(5/4)/GAMMA(3/4)^5/exp(-5/8\*Pi)\*2^(7/8)  
 Value: 1.23604661088821883937501  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 5, 10, 15, 25, 31, 35, 55, 60, 60, 90, 90, 95, 135, 125, 126, 170,

180, 175, 215, 220, 195, 285, 280, 245, 340, 300, 320, 405, 350,  
 351, 450, 465, 415, 515, 480, 425, 620, 590, 505, 655, 625, 590, 755, 660,  
 650, 805, 770, 755, 855, 841, 730, 1045, 960, 770, 1100

-----

Sequence: A008440

Name: Expansion of Jacobi theta constant  $\theta_2^6 / (64q^{3/2})$ .

$$\frac{\pi^{3/2} 2^{1/4}}{16 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{3\pi}{4}}}$$

Printed:  $1/16 * \pi^{3/2} / \text{GAMMA}(3/4)^6 / \exp(-3/4 * \pi) * 2^{1/4}$

Value: 1.28956078451622114149514

Number of terms: 512

Offset: 0

Sequence: 1, 6, 15, 26, 45, 66, 82, 120, 156, 170, 231, 276, 290, 390, 435,  
 438, 561, 630, 651, 780, 861, 842, 1020, 1170, 1095, 1326, 1431, 1370,  
 1716, 1740, 1682, 2016, 2145, 2132, 2415, 2550, 2353, 2850, 3120, 2810,  
 3321, 3486, 3285, 3906, 4005, 3722, 4350

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Sequence: A008441

Name: Number of ways of writing n as the sum of 2 triangular numbers.

$$\frac{\sqrt{\pi} 2^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4 * \pi^{1/2} / \text{GAMMA}(3/4)^2 / \exp(-1/4 * \pi) * 2^{3/4}$

Value: 1.08846367308029414329410

Number of terms: 512

Offset: 0

Sequence: 1, 2, 1, 2, 2, 0, 3, 2, 0, 2, 2, 2, 1, 2, 0, 2, 4, 0, 2, 0, 1, 4, 2, 0, 2, 2,  
 0, 2, 2, 2, 1, 4, 0, 0, 2, 0, 4, 2, 2, 2, 0, 0, 3, 2, 0, 2,  
 4, 0, 2, 2, 0, 4, 0, 0, 0, 4, 3, 2, 2, 0, 2, 2, 0, 0, 2, 2, 4, 2, 0, 2, 2, 0, 3, 2, 0, 0,  
 4, 0, 2, 2, 0, 6, 0, 2, 2, 0, 0, 2, 2, 0, 1, 4, 2, 2, 4, 0,  
 0, 2, 0, 2, 2, 2, 2, 0, 0

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Sequence: A008443

Name: Number of ordered ways of writing n as the sum of 3 triangular numbers.

$$\frac{\pi^{3/4} 2^{1/8}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{3\pi}{8}}}$$

Printed:  $1/4 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-3/8 * \pi) * 2^{(1/8)}$

Value: 1.13558829886373042950690

Number of terms: 512

Offset: 0

Sequence: 1, 3, 3, 4, 6, 3, 6, 9, 3, 7, 9, 6, 9, 9, 6, 6, 15, 9, 7, 12, 3, 15, 15, 6,  
12, 12, 9, 12, 15, 6, 13, 21, 12, 6, 15, 9, 12, 24, 9, 18, 12  
, 9, 18, 15, 12, 13, 24, 9, 15, 24, 6, 18, 27, 6, 12, 15, 18, 24, 21, 15, 12, 27, 9,  
13, 18, 15, 27, 27, 9, 12, 27, 15, 24, 21, 12, 15, 30, 15, 12

-----

Sequence: A008451

Name: Number of ways of writing n as a sum of 7 squares.

$$\frac{\pi^{7/4}}{\Gamma\left(\frac{3}{4}\right)^7}$$

Printed:  $\pi^{(7/4)} / \text{GAMMA}(3/4)^7$

Value: 1.78659333229936218730348

Number of terms: 512

Offset: 0

Sequence: 1, 14, 84, 280, 574, 840, 1288, 2368, 3444, 3542, 4424, 7560,  
9240, 8456, 11088, 16576, 18494, 17808, 19740, 27720, 34440, 29456, 31304,  
49728, 52808, 43414, 52248, 68320, 74048, 68376, 71120, 99456, 110964,  
89936, 94864, 136080, 145222

-----

Sequence: A008452

Name: Number of ways of writing n as a sum of 9 squares.

$$\frac{\pi^{9/4}}{\Gamma\left(\frac{3}{4}\right)^9}$$

Printed:  $\pi^{(9/4)} / \text{GAMMA}(3/4)^9$

Value: 2.10878864404439262160752

Number of terms: 512

Offset: 0

Sequence: 1, 18, 144, 672, 2034, 4320, 7392, 12672, 22608, 34802, 44640,  
60768, 93984, 125280, 141120, 182400, 262386, 317376, 343536, 421344,  
557280, 665280, 703584, 800640, 1068384, 1256562, 1234080, 1421184,

1851264, 2034720, 2057280, 2338560

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Sequence: A008453

Name: Number of ways of writing n as a sum of 11 squares.

$$\frac{\pi^{11/4}}{\Gamma\left(\frac{3}{4}\right)^{11}}$$

Printed: Pi^(11/4)/GAMMA(3/4)^11

Value: 2.48908885130969970827577

Number of terms: 512

Offset: 0

Sequence: 1, 22, 220, 1320, 5302, 15224, 33528, 63360, 116380, 209550,  
339064, 491768, 719400, 1095160, 1538416, 1964160, 2624182, 3696880,  
4763220  
, 5686648, 7217144, 9528816, 11676280, 13495680, 16317048, 20787470,  
25022184, 27785120, 32503680

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Sequence: A008658

Name: Theta series of direct sum of 2 copies of D\_4 lattice in powers of q^2.

$$\frac{9 \pi^2}{4 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed: 9/4\*Pi^2/GAMMA(3/4)^8

Value: 4.36728867680612796738721

Number of terms: 512

Offset: 0

Sequence: 1, 48, 624, 1344, 5232, 6048, 17472, 16512, 42096, 36336, 78624,  
63936, 146496, 105504, 214656, 169344, 337008, 235872, 472368, 329280,  
659232, 462336, 831168, 584064, 1178688, 756048, 1371552, 981120,  
1799808, 1170720, 2201472

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Sequence: A008659

Name: Theta series of direct sum of 3 copies of D\_4 lattice.

$$\frac{27 \pi^3}{8 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed: 27/8\*Pi^3/GAMMA(3/4)^12

Value: 9.12678561989708615775594  
Number of terms: 512  
Offset: 0

Sequence: 1, 72, 1800, 17568, 57096, 225072, 439200, 1210176, 1826568,  
4269096, 5626800, 11595744, 13931424, 26733168, 30254400, 54917568,  
58449672  
, 102229776, 106727400, 178279200, 178482096, 295282944, 289893600,  
463416768, 445682592

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Sequence: A008660  
Name: Theta series of direct sum of 4 copies of D\_4 lattice.

$$\frac{81 \pi^4}{16 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed: 81/16\*Pi^4/GAMMA(3/4)^16  
Value: 19.0732103865590200634039  
Number of terms: 512  
Offset: 0

Sequence: 1, 96, 3552, 62592, 528864, 2191680, 8951424, 23321856,  
67105248, 134971872, 319970880, 550300032, 1147717248, 1771816512,  
3371135232,  
4826361600, 8594190816, 11587029696, 19592103264

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Sequence: A008661  
Name: Theta series of direct sum of 5 copies of D\_4 lattice.

$$\frac{243 \pi^5}{32 \Gamma\left(\frac{3}{4}\right)^{20}}$$

Printed: 243/32\*Pi^5/GAMMA(3/4)^20  
Value: 39.8593074934135418027102  
Number of terms: 512  
Offset: 0

Sequence: 1, 120, 5880, 150240, 2125560, 16730064, 80352480, 343550400,  
1074130680, 3300009240, 8002059984, 20074327200, 41273292000,  
90329139600,  
165297094080, 327390278976, 549728415480, 1009882047600

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Sequence: A008662  
Name: Theta series of direct sum of 6 copies of D\_4 lattice.

$$\frac{729 \pi^6}{64 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 729/64\*Pi^6/GAMMA(3/4)^24  
 Value: 83.2982157515602392490262  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 144, 8784, 294336, 5883984, 71916768, 547468992,  
 2882049408, 12927121488, 45761350608, 150532923744, 416276152128,  
 1118182645440,  
 2614241349216, 6094718050176, 12618123283584, 26478496036944

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Sequence: A008690  
 Name: Theta series of Niemeier lattice of type D\_12^2.

$$\frac{3 \pi^6}{8 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 3/8\*Pi^6/GAMMA(3/4)^24  
 Value: 2.74232809058634532507082  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 528, 183888, 16906176, 397256784, 4631931360, 34414462656,  
 187481094528, 814924380240, 2975491484496, 9486490093920,  
 27053228195136,  
 70486041140928, 169930790281056, 384163798531968

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Sequence: A008695  
 Name: Theta series of Niemeier lattice of type A\_11 D\_7 E\_6.

$$\frac{81 \pi^6}{256 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 81/256\*Pi^6/GAMMA(3/4)^24  
 Value: 2.31383932643222886802851  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 288, 189648, 16845696, 397610064, 4630772160, 34415914176,  
 187485113088, 814904105040, 2975518758816, 9486517914720,

27053099888256,  
70486130167488, 169930928938176, 384163702086528

---

Sequence: A008700

Name: Theta series of Niemeier lattice of type  $D_4^6$ .

$$\frac{9 \pi^6}{32 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed:  $9/32*\pi^6/\text{GAMMA}(3/4)^{24}$   
Value: 2.05674606793975899380312  
Number of terms: 512  
Offset: 0

Sequence: 1, 144, 193104, 16809408, 397822032, 4630076640, 34416785088,  
187487524224, 814891939920, 2975535123408, 9486534607200,  
27053022904128,  
70486183583424, 169931012132448, 384163644219264, 820166796086400

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Sequence: A010054

Name:  $a(n) = 1$  if  $n$  is a triangular number, otherwise 0.

$$\frac{\pi^{1/4} 2^{3/8}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{8}}}$$

Printed:  $1/2*\pi^{(1/4)}/\text{GAMMA}(3/4)/\exp(-1/8*\pi)*2^{(3/8)}$   
Value: 1.04329462429377740146766  
Number of terms: 512  
Offset: 0

Sequence: 1, 1, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0,  
0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1,  
0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0,  
0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0,  
0, 0, 0, 0, 0, 0, 0, 0

---

Sequence: A010815

Name: From Euler's Pentagonal Theorem: coefficient of  $q^n$  in  $\text{Product}_{\{m=1\}}(1 - q^m)$ .



810, 702, 495, 837, -673, -900, 243, -1053, -297, 1566, 2700, -1764  
, 81, -1188, -1377, 270, -2043, 3321, -756, 3726, 3015, -4563, -3348, 504, -  
351, -1350, -468

---

Sequence: A010818

Name: Expansion of Product  $(1 - x^k)^{10}$  in powers of  $x$ .

$$\frac{\pi^{5/2} 2^{1/4}}{16 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\frac{5\pi}{12}}}$$

Printed:  $1/16 * \pi^{(5/2)} / \text{GAMMA}(3/4)^{10} / \exp(-5/12 * \pi) * 2^{(1/4)}$

Value: .630469948427796771375369

Number of terms: 512

Offset: 0

Sequence: 1, -10, 35, -30, -105, 238, 0, -260, -165, 140, 1054, -770, -595, 0, -  
715, 2162, 455, 0, -2380, -1820, 2401, -680, 1495, 3080, 1615, -\  
6958, -1925, 0, 0, 5100, -1442, 8330, -5355, 1330, 0, -16790, 0, 8190, 8265,  
0, 1918, 0, 8415, -10230, -7140, -9362

---

Sequence: A010819

Name: Expansion of Product  $\prod_{k=1} (1 - x^k)^{11}$ .

$$\frac{\pi^{11/4} \sqrt{2}}{64 \Gamma\left(\frac{3}{4}\right)^{11} e^{-\frac{11\pi}{12}}}$$

Printed:  $1/64 * \pi^{(11/4)} / \text{GAMMA}(3/4)^{11} / \exp(-11/12 * \pi) * 2^{(1/2)}$

Value: .979611213502934412980045

Number of terms: 512

Offset: 0

Sequence: 1, -11, 44, -55, -110, 374, -143, -462, 55, 495, 1287, -2069, -902,  
1210, -275, 3795, -1507, -2431, -3575, -385, 8690, -1661, 1143, 1265,  
-4290, -12716, 2299, 11440, 3905, 8635, -10472, 6105, -20548, -1540, 8690, -  
24904, 29634, 25003, 8470, -23320, -18183

---

Sequence: A010820

Name: Expansion of Product  $\prod_{k=1} (1 - x^k)^{13}$ .

$$\frac{\pi^{13/4} \sqrt{2}}{128 \Gamma\left(\frac{3}{4}\right)^{13} e^{-\frac{13\pi}{12}}}$$

Printed: 1/128\*Pi^(13/4)/GAMMA(3/4)^13/exp(-13/12\*Pi)\*2^(1/2)

Value: .975949074353367472573430

Number of terms: 512

Offset: 0

Sequence: 1, -13, 65, -130, -65, 728, -871, -715, 1560, 845, 78, -6513, 2730, 8605, -4355, 2483, -13299, -2275, 11440, 10010, 19734, -41834, -11375, 12870, -2730, 14911, 33201, 25155, -70070, -36595, -28925, 64389, 13650, 52780

Sequence: A010821

Name: Expansion of Product\_{k=1} (1 - x^k)^14.

$$\frac{\pi^{7/2} 2^{3/4}}{64 \Gamma\left(\frac{3}{4}\right)^{14} e^{-\frac{7\pi}{12}}}$$

Printed: 1/64\*Pi^(7/2)/GAMMA(3/4)^14/exp(-7/12\*Pi)\*2^(3/4)

Value: .524239990217678658012122

Number of terms: 512

Offset: 0

Sequence: 1, -14, 77, -182, 0, 924, -1547, -506, 3003, 0, -1729, -8372, 9177, 13090, -15625, 0, -17017, 10556, 30107, 0, 7084, -89206, 11571, 69160, 0, 27132, 0, -19096, -153502, 0, 93093, 165242, 0, -38962, 0, -420838, 257439

Sequence: A010822

Name: Expansion of Product\_{k=1} (1 - x^k)^15.

$$\frac{\pi^{15/4} 2^{3/8}}{64 \Gamma\left(\frac{3}{4}\right)^{15} e^{-\frac{5\pi}{8}}}$$

Printed: 1/64\*Pi^(15/4)/GAMMA(3/4)^15/exp(-5/8\*Pi)\*2^(3/8)

Value: .500606617121815812988873

Number of terms: 512

Offset: 0

Sequence: 1, -15, 90, -245, 105, 1107, -2485, 195, 4860, -2420, -3990, -8190, 19695, 13755, -38475, 3990, -9750, 34020, 43015, -46605, -13860, -\

127385, 106485, 165240, -79275, -16380, -92340, -35840, -151995, 188550,  
315783, 90090, -271215, -307485, 20475, -505440, 915385, 209340, -284130,  
337645, -294225, 269325, -1707970, -70305, 1297620, 574210, 492765,  
251370, -847245, -1102725, 438129, -1416190, 641445, 0

---

Sequence: A010823

Name: Expansion of Product\_{k:=1} (1 - x^k)^17.

$$\frac{\pi^{17/4} 2^{5/8}}{128 \Gamma\left(\frac{3}{4}\right)^{17} e^{-\frac{17\pi}{24}}}$$

Printed: 1/128\*Pi^(17/4)/GAMMA(3/4)^17/exp(-17/24\*Pi)\*2^(5/8)

Value: .456488103627223241981490

Number of terms: 512

Offset: 0

Sequence: 1, -17, 119, -408, 476, 1309, -5236, 4233, 8602, -15470, -4250,  
5236, 45815, -21182, -117776, 101065, 46767, 36685, -36771, -267036,  
143514, -18241, 486285, 81753, -1007250, 104006, 165767, 579292, 78829,  
187510

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Sequence: A010824

Name: Expansion of Product\_{k:=1} (1 - x^k)^18.

$$\frac{\pi^{9/2} 2^{1/4}}{128 \Gamma\left(\frac{3}{4}\right)^{18} e^{-\frac{3\pi}{4}}}$$

Printed: 1/128\*Pi^(9/2)/GAMMA(3/4)^18/exp(-3/4\*Pi)\*2^(1/4)

Value: .435909067559476004288746

Number of terms: 512

Offset: 0

Sequence: 1, -18, 135, -510, 765, 1242, -7038, 8280, 9180, -27710, 3519,  
20196, 50370, -68850, -153765, 244782, 52785, -71010, -130525, -343620,  
517293, 54978, 498780, -390150, -1835865, 1161270, 896751, 793730, -  
633420

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Sequence: A010825

Name: Expansion of Product\_{k:=1} (1 - x^k)^19.

$$\frac{\pi^{19/4} \sqrt{2}}{1024 \Gamma\left(\frac{3}{4}\right)^{19} e^{-\frac{19\pi}{12}}}$$

Printed: 1/1024\*Pi^(19/4)/GAMMA(3/4)^19/exp(-19/12\*Pi)\*2^(1/2)

Value: .965044594739512536182056

Number of terms: 512

Offset: 0

Sequence: 1, -19, 152, -627, 1140, 988, -9063, 14212, 7410, -44270, 22781, 38114, 36176, -137256, -154850, 480605, -46493, -316065, -153406, -\ 254525, 1156948, -184927, 88483, -1051042, -2381650, 3838874, 1417039, -542146

Sequence: A010826

Name: Expansion of Product\_{k=1} (1 - x^k)^20.

$$\frac{\pi^5 \sqrt{2}}{256 \Gamma\left(\frac{3}{4}\right)^{20} e^{-\frac{5\pi}{6}}}$$

Printed: 1/256\*Pi^5/GAMMA(3/4)^20/exp(-5/6\*Pi)\*2^(1/2)

Value: .397492355870548720590191

Number of terms: 512

Offset: 0

Sequence: 1, -20, 170, -760, 1615, 476, -11210, 22440, 1615, -64600, 60002, 51680, -9520, -213180, -83980, 803528, -379525, -692360, 119700, 80920, 1899830, -1235360, -755990, -1200040, -1981435, 8388956, -361760, -5068440

Sequence: A010827

Name: Expansion of Product\_{k=1} (1 - x^k)^21.

$$\frac{\pi^{21/4} \sqrt{2}}{2048 \Gamma\left(\frac{3}{4}\right)^{21} e^{-\frac{7\pi}{4}}}$$

Printed: 1/2048\*Pi^(21/4)/GAMMA(3/4)^21/exp(-7/4\*Pi)\*2^(1/2)

Value: .961436910851497360193657

Number of terms: 512

Offset: 0

Sequence: 1, -21, 189, -910, 2205, -378, -13321, 33345, -10395, -86870, 122703, 46683, -98287, -264915, 96390, 1163064, -1113588, -1066527,

1042055  
, 536025, 2287467, -3603805, -1391733, 478170, -562555, 13742379, -  
7889805

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Sequence: A010828

Name: Expansion of Product\_{k=1} (1 - x^k)^22.

$$\frac{\pi^{11/2} 2^{3/4}}{512 \Gamma\left(\frac{3}{4}\right)^{22} e^{-\frac{11\pi}{12}}}$$

Printed: 1/512\*Pi^(11/2)/GAMMA(3/4)^22/exp(-11/12\*Pi)\*2^(3/4)

Value: .362461312998406938003715

Number of terms: 512

Offset: 0

Sequence: 1, -22, 209, -1078, 2926, -1672, -15169, 47234, -31350, -107426,  
218680, -266, -234707, -237006, 405878, 1444806, -2415413, -1091398,  
3018169, 523050, 1618309, -7344304, -134905, 5365866, 5852, 17297588, -  
24278276

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Sequence: A010829

Name: Expansion of Product\_{k=1} (1 - x^k)^23.

$$\frac{\pi^{23/4} \sqrt{2}}{4096 \Gamma\left(\frac{3}{4}\right)^{23} e^{-\frac{23\pi}{12}}}$$

Printed: 1/4096\*Pi^(23/4)/GAMMA(3/4)^23/exp(-23/12\*Pi)\*2^(1/2)

Value: .957842713783787475324468

Number of terms: 512

Offset: 0

Sequence: 1, -23, 230, -1265, 3795, -3519, -16445, 64285, -64515, -120175,  
354706, -123763, -407560, -48530, 817190, 1464341, -4376693, -135355,  
6303955, -1282710, -682088, -11372603, 5678585, 13479425, -5451115,  
16579596

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Sequence: A010831

Name: Expansion of Product (1-x^k)^26.

$$\frac{\pi^{13/2} 2^{1/4}}{1024 \Gamma\left(\frac{3}{4}\right)^{26} e^{-\frac{13\pi}{12}}}$$

Printed: 1/1024\*Pi^(13/2)/GAMMA(3/4)^26/exp(-13/12\*Pi)\*2^(1/4)

Value: .301389012520607197768409

Number of terms: 512

Offset: 0

Sequence: 1, -26, 299, -1950, 7475, -13754, -12220, 132756, -276575, 0,  
1010100, -1486030, -519961, 2486300, 829725, -2215486, -11643060,  
18523050,  
16317925, -42861650, 0, 11010090, 59644221, -5743400, -138219900

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Sequence: A010833

Name: Expansion of Product (1-x^k )^28.

$$\frac{\pi^7 \sqrt{2}}{2048 \Gamma\left(\frac{3}{4}\right)^{28} e^{-\frac{7\pi}{6}}}$$

Printed: 1/2048\*Pi^7/GAMMA(3/4)^28/exp(-7/6\*Pi)\*2^(1/2)

Value: .274827567343431815046360

Number of terms: 512

Offset: 0

Sequence: 1, -28, 350, -2520, 11025, -26180, 4158, 184600, -554400, 401100,  
1496964, -3920280, 1444625, 6224400, -4972350, -7121296, -8308965,  
50796900, -8971200, -121968000, 94011435, 80598288, 20282500, -  
175228200

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Sequence: A010839

Name: Expansion of Product\_{k := 1} (1-x^k)^48.

$$\frac{\pi^{12}}{262144 \Gamma\left(\frac{3}{4}\right)^{48} e^{-2\pi}}$$

Printed: 1/262144\*Pi^12/GAMMA(3/4)^48/exp(-2\*Pi)

Value: .109241857201512593078440

Number of terms: 512

Offset: 0

Sequence: 1, -48, 1080, -15040, 143820, -985824, 4857920, -16295040,  
28412910, 38671600, -424520544, 1268350272, -1211937160, -4306546080,

18293091840, -23522231424, -26299018683, 137218594320, -150999182320,  
-134713340160

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Sequence: A013961

Name:  $a(n) = \sigma_{13}(n)$ , the sum of the 13th powers of the divisors of  $n$ .

$$\frac{1}{24 e^{-2\pi}}$$

Printed:  $1/24/\exp(-2*\text{Pi})$

Value: 22.3121523135318640209602

Number of terms: 512

Offset: 1

Sequence: 1, 8193, 1594324, 67117057, 1220703126, 13062296532,  
96889010408, 549822930945, 2541867422653, 10001220711318,  
34522712143932,  
107006334784468, 302875106592254, 793811662272744,  
1946196290656824, 4504149450301441, 9904578032905938,  
20825519793796029

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Sequence: A014103

Name: Expansion of  $(\eta(q^2) / \eta(q))^{24}$  in powers of  $q$ .

$$\frac{1}{8 e^{-\pi}}$$

Printed:  $1/8/\exp(-\text{Pi})$

Value: 2.89258657909740862571612

Number of terms: 512

Offset: 1

Sequence: 1, 24, 300, 2624, 18126, 105504, 538296, 2471424, 10400997,  
40674128, 149343012, 519045888, 1718732998, 5451292992, 16633756008,  
49010118656, 139877936370, 387749049720, 1046413709980,  
2754808758144, 7087483527072, 17848133716832, 44056043512488,  
106727749011456

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Sequence: A014705

Name: Expansion of  $((\theta_2)^4 + (\theta_3)^4) / \eta(z/2)^4$ .

$$\frac{3\sqrt{2}}{e^{\frac{\pi}{6}}}$$

Printed:  $3/\exp(1/6*\text{Pi})*2^{(1/2)}$

Value: 2.51327605511439936930648

Number of terms: 512  
Offset: 0

Sequence: 1, 28, 134, 568, 1809, 5316, 13990, 34696, 80724, 180068, 384940,  
796760, 1598789, 3127360, 5971922, 11170160, 20491033, 36947444,  
65553412, 114619248, 197681341, 336670120, 566630192, 943234040,  
1553941445, 2535325644, 4098671374, 6568931200, 10441889389  
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Sequence: A014787  
Name: Expansion of Jacobi theta constant (theta\_2/2)^12.

$$\frac{\pi^3 \sqrt{2}}{256 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\frac{3\pi}{2}}}$$

Printed: 1/256\*Pi^3/GAMMA(3/4)^12/exp(-3/2\*Pi)\*2^(1/2)  
Value: 1.66296701696209173615416  
Number of terms: 512  
Offset: 0

Sequence: 1, 12, 66, 232, 627, 1452, 2982, 5544, 9669, 16016, 25158, 38160,  
56266, 80124, 111816, 153528, 205260, 270876, 353870, 452496, 574299,  
724044, 895884, 1103520, 1353330, 1633500, 1966482, 2360072, 2792703,  
3299340, 3892922, 4533936, 5273841, 6134448  
-----

Sequence: A014805  
Name: Expansion of Jacobi theta constant (theta\_2/2)^16.

$$\frac{\pi^4}{1024 \Gamma\left(\frac{3}{4}\right)^{16} e^{-2\pi}}$$

Printed: 1/1024\*Pi^4/GAMMA(3/4)^16/exp(-2\*Pi)  
Value: 1.97020544098584637957179  
Number of terms: 512  
Offset: 0

Sequence: 1, 16, 120, 576, 2060, 6048, 15424, 35200, 73518, 143280, 263584,  
461376, 775160, 1256928, 1973760, 3017088, 4503557, 6572880, 9411984,  
13249280, 18340932, 25034976, 33739520, 44879616, 59057510, 76949920,  
99212352, 126838080, 160884264, 202296960, 252645376  
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Sequence: A014806  
Name: Expansion of Jacobi theta constant (theta\_2/2)^20.

$$\frac{\pi^5 \sqrt{2}}{8192 \Gamma\left(\frac{3}{4}\right)^{20} e^{-\frac{5\pi}{2}}}$$

Printed: 1/8192\*Pi^5/GAMMA(3/4)^20/exp(-5/2\*Pi)\*2^(1/2)

Value: 2.33420713706116706526824

Number of terms: 512

Offset: 0

Sequence: 1, 20, 190, 1160, 5225, 18924, 58350, 158840, 391020, 886540,  
1877676, 3753640, 7140485, 13014240, 22846170, 38794448, 63969485,  
102744780, 161143180, 247386480, 372472353, 550858280, 801535160,  
1148976360, 1624208445, 2266848372, 3126467670, 4264095520

Sequence: A014809

Name: Expansion of Jacobi theta constant (theta\_2/2)^24.

$$\frac{\pi^6}{32768 \Gamma\left(\frac{3}{4}\right)^{24} e^{-3\pi}}$$

Printed: 1/32768\*Pi^6/GAMMA(3/4)^24/exp(-3\*Pi)

Value: 2.76545929950379790410672

Number of terms: 512

Offset: 0

Sequence: 1, 24, 276, 2048, 11178, 48576, 177400, 565248, 1612875,  
4200352, 10131156, 22892544, 48897678, 99448320, 193740408, 363315200,  
658523925  
, 1157743824, 1980143600, 3303168000, 5386270686, 8602175744,  
13477895856, 20748607488, 31425764410, 46883528256, 68969957700

Sequence: A014969

Name: Expansion of (theta\_3(q) / theta\_4(q))^2 in powers of q.

$$\sqrt{2}$$

Printed: 2^(1/2)

Value: 1.41421356237309504880169

Number of terms: 512

Offset: 0

Sequence: 1, 8, 32, 96, 256, 624, 1408, 3008, 6144, 12072, 22976, 42528,  
76800, 135728, 235264, 400704, 671744, 1109904, 1809568, 2914272,  
4640256,  
7310592, 11404416, 17626944, 27009024, 41047992, 61905088, 92681664

Sequence: A014972

Name: Expansion of  $(\theta_3(q) / \theta_4(q))^4$  in powers of  $q$ ; also of  $1 / (1 - \lambda(z))$ .

2

Printed: 2

Value: 2.

Number of terms: 512

Offset: 0

Sequence: 1, 16, 128, 704, 3072, 11488, 38400, 117632, 335872, 904784, 2320128, 5702208, 13504512, 30952544, 68901888, 149403264, 316342272, 655445792, 1331327616, 2655115712, 5206288384, 10049485312, 19115905536, 35867019904, 66437873664

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Sequence: A015128

Name: Number of overpartitions of  $n$ : an overpartition of  $n$  is an ordered sequence of nonincreasing integers that sum to  $n$ , where the first occurrence of each integer may be overlined.

$$\frac{2^{1/4} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4}}$$

Printed:  $1/\pi^{(1/4)}*2^{(1/4)}*GAMMA(3/4)$

Value: 1.09459592303990983183953

Number of terms: 512

Offset: 0

Sequence: 1, 2, 4, 8, 14, 24, 40, 64, 100, 154, 232, 344, 504, 728, 1040, 1472, 2062, 2864, 3948, 5400, 7336, 9904, 13288, 17728, 23528, 31066, 40824, 53408, 69568, 90248, 116624, 150144, 192612, 246256, 313808, 398640, 504886, 637592, 802936, 1008448

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Sequence: A022043

Name: Theta series of  $D_{12}$  lattice.

$$\frac{9 \pi^3}{16 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed:  $9/16*\pi^3/GAMMA(3/4)^{12}$

Value: 1.52113093664951435962599

Number of terms: 512

Offset: 0

Sequence: 1, 264, 7944, 64416, 253704, 825264, 1938336, 4437312, 8118024,  
 15653352, 24832944, 42517728, 61903776, 98021616, 133522752,  
 201364416,  
 259776264, 374842512, 471023592, 653690400, 793078704, 1082704128,  
 1279397088, 1699194816, 1980797856, 2578950264, 2949559536  
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Sequence: A022065  
 Name: Theta series of D\*\_12 lattice.

$$\frac{9 \pi^3}{8 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed: 9/8\*Pi^3/GAMMA(3/4)^12  
 Value: 3.04226187329902871925198  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 24, 264, 5856, 7944, 75024, 64416, 403392, 253704, 1423032,  
 825264, 3865248, 1938336, 8911056, 4437312, 18305856, 8118024,  
 34076592,  
 15653352, 59426400, 24832944, 98427648, 42517728, 154472256, 61903776,  
 234450024, 98021616, 345796800, 133522752, 492267600  
 -----

Sequence: A022567  
 Name: Expansion of Product\_{m=1} (1+x^m)^2.

$$\frac{2^{3/4}}{2 e^{-\frac{\pi}{12}}}$$

Printed: 1/2/exp(-1/12\*Pi)\*2^(3/4)  
 Value: 1.09254801060857126383828  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 3, 6, 9, 14, 22, 32, 46, 66, 93, 128, 176, 238, 319, 426, 562,  
 736, 960, 1242, 1598, 2048, 2608, 3306, 4175, 5248, 6570, 8198,  
 10190, 12622, 15589, 19190, 23552, 28830, 35190, 42842, 52034, 63040,  
 76198, 91904, 110604, 132832, 159216, 190464, 227417  
 -----

Sequence: A022568  
 Name: Expansion of Product\_{m=1} (1+x^m)^3.

$$\frac{2^{5/8}}{2 e^{-\frac{\pi}{8}}}$$

Printed: 1/2/exp(-1/8\*Pi)\*2^(5/8)  
 Value: 1.14198604228142321093068  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 3, 6, 13, 24, 42, 73, 120, 192, 302, 465, 702, 1046, 1536, 2226, 3195, 4536, 6378, 8896, 12306, 16896, 23045, 31224, 42048, 56310, 75000, 99384, 131072, 172071, 224910, 292774, 379608, 490338, 631104, 809472, 1034814, 1318707, 1675344, 2122176, 2680602, 3376728, 4242432, 5316562, 6646272

Sequence: A022569  
 Name: Expansion of Product\_{m=1} (1+x^m)^4.

$$\frac{\sqrt{2}}{2 e^{-\frac{\pi}{6}}}$$

Printed: 1/2/exp(-1/6\*Pi)\*2^(1/2)  
 Value: 1.19366115548474674686976  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, 10, 24, 51, 100, 190, 344, 601, 1024, 1702, 2768, 4422, 6948, 10752, 16424, 24782, 36972, 54602, 79872, 115805, 166540, 237664, 336720, 473856, 662596, 920934, 1272728, 1749407, 2392268, 3255410, 4409344, 5945730, 7983388, 10675712, 14220240, 18870672, 24951740, 32878114

Sequence: A022570  
 Name: Expansion of Product\_{m=1} (1+x^m)^5.

$$\frac{2^{3/8}}{2 e^{-\frac{5\pi}{24}}}$$

Printed: 1/2/exp(-5/24\*Pi)\*2^(3/8)  
 Value: 1.24767457863732467810701  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 5, 15, 40, 95, 206, 425, 835, 1575, 2880, 5121, 8885, 15095,

25165, 41240, 66562, 105945, 166480, 258560, 397235, 604162, 910325,  
1359680, 2014235, 2961000, 4321283, 6263360, 9019555, 12908945,  
18367805, 25990149, 36581200, 51228175, 71393555, 99037095, 136775685,  
188091960

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Sequence: A022571

Name: Expansion of Product\_{m:=1} (1+x^m)^6.

$$\frac{2^{1/4}}{2 e^{-\frac{\pi}{4}}}$$

Printed: 1/2/exp(-1/4\*Pi)\*2^(1/4)

Value: 1.30413212076558852163454

Number of terms: 512

Offset: 0

Sequence: 1, 6, 21, 62, 162, 384, 855, 1806, 3648, 7110, 13434, 24702,  
44361, 78006, 134592, 228302, 381300, 627840, 1020394, 1638528, 2601849,  
4088780, 6363354, 9813504, 15005458, 22760262, 34261248, 51204222,  
76005906, 112092438, 164296989, 239404860, 346898496, 499971968,  
716906394

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Sequence: A022572

Name: Expansion of Product\_{m:=1} (1+x^m)^7.

$$\frac{2^{1/8}}{2 e^{-\frac{7\pi}{24}}}$$

Printed: 1/2/exp(-7/24\*Pi)\*2^(1/8)

Value: 1.36314437877709648396992

Number of terms: 512

Offset: 0

Sequence: 1, 7, 28, 91, 259, 665, 1589, 3585, 7707, 15925, 31808, 61677,  
116536, 215180, 389194, 690935, 1206016, 2072700, 3511851, 5872545,  
9701097, 15844866, 25606840, 40974528, 64956836, 102076289, 159084401,  
245995792, 377574402, 575459136, 871189669, 1310492547, 1959326215,  
2912370944

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Sequence: A022573

Name: Expansion of Product\_{m:=1} (1+x^m)^8.

$$\frac{1}{2 e^{-\frac{\pi}{3}}}$$

Printed: 1/2/exp(-1/3\*Pi)  
 Value: 1.42482695411318074873706  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 8, 36, 128, 394, 1088, 2776, 6656, 15155, 33056, 69508,  
 141568, 280382, 541696, 1023512, 1895424, 3446617, 6163536, 10854400,  
 18846592  
 , 32296742, 54673920, 91506000, 151523840, 248403014, 403396288,  
 649286724, 1036287744, 1640796160, 2578305024, 4022351720,  
 6232177664, 9592906446

Sequence: A022574  
 Name: Expansion of Product\_{m=1} (1+x^m)^9.

$$\frac{2^{7/8}}{4 e^{-\frac{3\pi}{8}}}$$

Printed: 1/4/exp(-3/8\*Pi)\*2^(7/8)  
 Value: 1.48930067920517349452575  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 9, 45, 174, 576, 1701, 4614, 11709, 28125, 64525, 142353,  
 303552, 628251, 1266273, 2492352, 4801578, 9071973, 16837893, 30744649,  
 55296000, 98070633, 171683463, 296919081, 507695670, 858866880,  
 1438391232, 2386178649, 3923081006, 6395198049, 10341173376,  
 16593811467

Sequence: A022575  
 Name: Expansion of Product\_{m=1} (1+x^m)^10.

$$\frac{2^{3/4}}{4 e^{-\frac{5\pi}{12}}}$$

Printed: 1/4/exp(-5/12\*Pi)\*2^(3/4)  
 Value: 1.55669185417782568201850  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 10, 55, 230, 815, 2562, 7360, 19700, 49755, 119700, 276278,

615130, 1326965, 2783360, 5693305, 11384326, 22299655, 42865280,  
80983060,  
150571340, 275840009, 498410280, 889056835, 1566896280, 2730474975,  
4707724814, 8035618655, 13586253440, 22765030080, 37820087380  
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Sequence: A022576

Name: Expansion of Product\_{m:=1} (1+x^m)^11.

$$\frac{2^{5/8}}{4 e^{-\frac{11 \pi}{24}}}$$

Printed: 1/4/exp(-11/24\*Pi)\*2^(5/8)

Value: 1.62713249426360627972795

Number of terms: 512

Offset: 0

Sequence: 1, 11, 66, 297, 1122, 3740, 11341, 31922, 84535, 212707, 512369,  
1188353, 2666048, 5807296, 12319659, 25518757, 51725289, 102786959,  
200568907, 384847199, 727019260, 1353654049, 2486522369, 4509972819,  
8083287432, 14326409152, 25124415635, 43622744968, 75026666913,  
127882738709  
-----

Sequence: A022577

Name: Expansion of Product\_{m:=1} (1+x^m)^12.

$$\frac{\sqrt{2}}{4 e^{-\frac{\pi}{2}}}$$

Printed: 1/4/exp(-1/2\*Pi)\*2^(1/2)

Value: 1.70076058841255156411995

Number of terms: 512

Offset: 0

Sequence: 1, 12, 78, 376, 1509, 5316, 16966, 50088, 138738, 364284, 913824,  
2203368, 5130999, 11585208, 25444278, 54504160, 114133296, 234091152,  
471062830, 931388232, 1811754522, 3471186596, 6556994502,  
12222818640, 22502406793, 40944396120, 73680871326, 131211105208,  
231355524048, 404110659732  
-----

Sequence: A022578

Name: Expansion of Product\_{m:=1} (1+x^m)^13.

$$\frac{2^{3/8}}{4 e^{-\frac{13 \pi}{24}}}$$

Printed: 1/4/exp(-13/24\*Pi)\*2^(3/8)  
 Value: 1.77772036960426553480662  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 13, 91, 468, 1989, 7384, 24739, 76427, 220948, 604175,  
 1575392, 3941847, 9511944, 22226049, 50458447, 111609537, 241099027,  
 509680951,  
 1056262792, 2149214288, 4299359012, 8465605408, 16424772637,  
 31429372312, 59365381608, 110770031489, 204315725953, 372772306309,  
 673125106316

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Sequence: A022579  
 Name: Expansion of Product\_{m=1} (1+x^m)^14.

$$\frac{2^{1/4}}{4 e^{-\frac{7 \pi}{12}}}$$

Printed: 1/4/exp(-7/12\*Pi)\*2^(1/4)  
 Value: 1.85816259739159629117820  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 14, 105, 574, 2576, 10052, 35273, 113794, 342699, 974176,  
 2635955, 6833540, 17061345, 41197422, 96544003, 220212384, 490104727,  
 1066552228, 2273590095, 4755188704, 9771319068, 19751596934,  
 39317784863, 77150246040, 149357609184, 285497384004, 539227765104,  
 1006978117880

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Sequence: A022580  
 Name: Expansion of Product\_{m=1} (1+x^m)^15.

$$\frac{2^{1/8}}{4 e^{-\frac{5 \pi}{8}}}$$

Printed: 1/4/exp(-5/8\*Pi)\*2^(1/8)  
 Value: 1.94224485322947432964567  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 15, 120, 695, 3285, 13443, 49305, 165795, 519240, 1531960,

4295046, 11520000, 29718605, 74060355, 178930605, 420368858,  
962785560,  
2154411120, 4718952965, 10134292275, 21369644184, 44300604895,  
90390209685, 181706747280, 360207189225, 704726281002, 1361748557400  
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Sequence: A022581

Name: Expansion of Product\_{m:=1} (1+x^m)^16.

$$\frac{1}{4 e^{-\frac{2 \pi}{3}}}$$

Printed: 1/4/exp(-2/3\*Pi)

Value: 2.03013184916744407896174

Number of terms: 512

Offset: 0

Sequence: 1, 16, 136, 832, 4132, 17696, 67712, 236928, 770442, 2355824,  
6834240, 18940480, 50424536, 129535968, 322288128, 779022208,  
1834203955,  
4216133616, 9479688992, 20884408704, 45148577668, 95902505120,  
200394848512, 412350614016, 836328261438, 1673337795840,  
3305364030464, 6450386567104,  
12443955363352, 23745951691328, 44844655553536, 83856163515776,  
155331420821337  
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Sequence: A022582

Name: Expansion of Product\_{m:=1} (1+x^m)^17.

$$\frac{2^{7/8}}{8 e^{-\frac{17 \pi}{24}}}$$

Printed: 1/8/exp(-17/24\*Pi)\*2^(7/8)

Value: 2.12199575051059865721370

Number of terms: 512

Offset: 0

Sequence: 1, 17, 153, 986, 5134, 22967, 91528, 332741, 1121864, 3550518,  
10644516, 30446116, 83554915, 221028152, 565733446, 1405559677,  
3398860779  
, 8018057345, 18489507853, 41750241112, 92455892640, 201066321781,  
429927351485, 904832464581, 1876192580514, 3836193955660,  
7740691696577  
-----

Sequence: A022583

Name: Expansion of Product\_{m:=1} (1+x^m)^18.

$$\frac{2^{3/4}}{8 e^{-\frac{3\pi}{4}}}$$

Printed: 1/8/exp(-3/4\*Pi)\*2^(3/4)  
 Value: 2.21801651308099109046210  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 18, 171, 1158, 6309, 29430, 121962, 460008, 1605996, 5254334,  
 16260867, 47949804, 135509922, 368764290, 970099191, 2475106170,  
 6141671649, 14856839874, 35107961175, 81189855828, 184033842021,  
 409446105486, 895231350108, 1925717858910, 4079428991751,  
 8518121246538

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Sequence: A022584  
 Name: Expansion of Product\_{m=1} (1+x^m)^19.

$$\frac{2^{5/8}}{8 e^{-\frac{19\pi}{24}}}$$

Printed: 1/8/exp(-19/24\*Pi)\*2^(5/8)  
 Value: 2.31838223574019668259522  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 19, 190, 1349, 7676, 37278, 160417, 626924, 2263698, 7647652,  
 24405633, 74120672, 215505334, 602763220, 1628328880, 4262845643,  
 10845598563, 26882001287, 65048680364, 153950675585, 356936640088,  
 811869015895, 1813912504439, 3985419541978, 8619872682020,  
 18369414409148

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Sequence: A022585  
 Name: Expansion of Product\_{m=1} (1+x^m)^20.

$$\frac{\sqrt{2}}{8 e^{-\frac{5\pi}{6}}}$$

Printed: 1/8/exp(-5/6\*Pi)\*2^(1/2)  
 Value: 2.42328952886359689729199  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 20, 210, 1560, 9255, 46724, 208510, 843320, 3145855,

10963160, 36042250, 112633760, 336622160, 966897820, 2680139300,  
7193849624,  
18752326235, 47590579080, 117840608100, 285228791880, 675978772326,  
1570897356960, 3584273539170, 8038904002760, 17741382028085,  
38563932406500

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Sequence: A022586

Name: Expansion of Product\_{m:=1} (1+x^m)^21.

$$\frac{2^{3/8}}{8 e^{-\frac{7\pi}{8}}}$$

Printed: 1/8/exp(-7/8\*Pi)\*2^(3/8)

Value: 2.53294389948820356984262

Number of terms: 512

Offset: 0

Sequence: 1, 21, 231, 1792, 11067, 58002, 268093, 1120899, 4315269,  
15497986, 52441347, 168487473, 517184185, 1524390777, 4332440454,  
11914441196,  
31798680774, 82574231187, 209091601271, 517272712845, 1252351944165,  
2971700764941, 6920411525727, 15835150526244, 35640093688017

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Sequence: A022587

Name: Expansion of Product\_{m:=1} (1 + x^m)^22.

$$\frac{2^{1/4}}{8 e^{-\frac{11\pi}{12}}}$$

Printed: 1/8/exp(-11/12\*Pi)\*2^(1/4)

Value: 2.64756015388850472280512

Number of terms: 512

Offset: 0

Sequence: 1, 22, 253, 2046, 13134, 71368, 341275, 1473494, 5848810,  
21628002, 75261384, 248403586, 782547909, 2365168542, 6887441198,  
19393122562,  
52959869787, 140631776582, 363943223941, 919706094494,  
2273411319069, 5505315501136, 13078268135683, 30514651732686,  
70005101272876

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Sequence: A022588

Name: Expansion of Product\_{m:=1} (1 + x^m)^23.

$$\frac{2^{1/8}}{8 e^{-\frac{23 \pi}{24}}}$$

Printed: 1/8/exp(-23/24\*Pi)\*2^(1/8)  
 Value: 2.76736281836895369884945  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 23, 276, 2323, 15479, 87101, 430445, 1917349, 7839849,  
 29824583, 106646308, 361327079, 1167406906, 3615602714, 10780913004,  
 31061653709, 86741652761, 235404301651, 622271232287, 1605432041576,  
 4049617772390, 10002785010369, 24227747380447, 57613905606273,  
 134662398395411

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Sequence: A022589  
 Name: Expansion of Product\_{m=1} (1 + q^m)^25.

$$\frac{2^{7/8}}{16 e^{-\frac{25 \pi}{24}}}$$

Printed: 1/16/exp(-25/24\*Pi)\*2^(7/8)  
 Value: 3.02347674184112929733401  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 25, 325, 2950, 21100, 126905, 667850, 3157725, 13667175,  
 54900675, 206841715, 736953800, 2499500175, 8113694575, 25320834800,  
 76253908740, 222308896150, 629146702350, 1732518057650,  
 4651937973250, 12201443983695, 31311905220800, 78732034002275,  
 194220161393825

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Sequence: A022590  
 Name: Expansion of Product\_{m=1} (1+q^m)^26.

$$\frac{2^{3/4}}{16 e^{-\frac{13 \pi}{12}}}$$

Printed: 1/16/exp(-13/12\*Pi)\*2^(3/4)  
 Value: 3.16028971250592646038590  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 26, 351, 3302, 24427, 151658, 822484, 4001660, 17799041,  
 73391968, 283542740, 1034983222, 3593364255, 11931569028,

38062054017,  
117095671862, 348538604492, 1006539781078, 2827014674081,  
7738495452714, 20683325376064, 54066855041446, 138427417637249,  
347584258977384

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Sequence: A022591

Name: Expansion of Product\_{m:=1} (1+q^m)^27.

$$\frac{2^{5/8}}{16 e^{-\frac{9\pi}{8}}}$$

Printed: 1/16/exp(-9/8\*Pi)\*2^(5/8)

Value: 3.30329349941981061192282

Number of terms: 512

Offset: 0

Sequence: 1, 27, 378, 3681, 28134, 180144, 1005957, 5032422, 22986801,  
97229361, 384953553, 1438738443, 5110502256, 17348445108,  
56541857409,  
177611637141, 539501563962, 1589134470966, 4550281700055,  
12692702415312, 34556103662778, 91975719684573, 239686155975618

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Sequence: A022592

Name: Expansion of Product\_{m:=1} (1+q^m)^28.

$$\frac{\sqrt{2}}{16 e^{-\frac{7\pi}{6}}}$$

Printed: 1/16/exp(-7/6\*Pi)\*2^(1/2)

Value: 3.45276823834508357193590

Number of terms: 512

Offset: 0

Sequence: 1, 28, 406, 4088, 32249, 212772, 1222438, 6283400, 29454432,  
127721972, 517920340, 1980864312, 7194850761, 24957519216,  
83064794746,  
266299577040, 825106028411, 2477872472348, 7230302637376,  
20543975496576, 56949757063171, 154281017250160, 409072030569524

---

Sequence: A022593

Name: Expansion of Product\_{m:=1} (1+q^m)^29.

$$\frac{2^{3/8}}{16 e^{-\frac{29 \pi}{24}}}$$

Printed: 1/16/exp(-29/24\*Pi)\*2^(3/8)  
 Value: 3.60900674124733973840379  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 29, 435, 4524, 36801, 249980, 1476535, 7792619, 37464346,  
 166445529, 690898842, 2702690003, 10033022642, 35545708813,  
 120756549637,  
 394935306099, 1247670362782, 3818503661392, 11350088407317,  
 32837741707782, 92652254354675, 255382893501050, 688721602753864  
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Sequence: A022594  
 Name: Expansion of Product\_{m:=1} (1+q^m)^30.

$$\frac{2^{1/4}}{16 e^{-\frac{5 \pi}{4}}}$$

Printed: 1/16/exp(-5/4\*Pi)\*2^(1/4)  
 Value: 3.77231506989638228035254  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 30, 465, 4990, 41820, 292236, 1773325, 9603210, 47322525,  
 215286380, 914269641, 3656192760, 13865226845, 50148901590,  
 173821904265,  
 579696375972, 1866529110420, 5819476726230, 17613901516660,  
 51870170192610, 148909462006422, 417468856858550, 1144709400114480  
 -----

Sequence: A022595  
 Name: Expansion of Product\_{m :=1} (1+q^m)^31.

$$\frac{2^{1/8}}{16 e^{-\frac{31 \pi}{24}}}$$

Printed: 1/16/exp(-31/24\*Pi)\*2^(1/8)  
 Value: 3.94301313542270374270887  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 31, 496, 5487, 47337, 340039, 2118385, 11763911, 59384158,  
 276491170, 1200703594, 4906332242, 18998567031, 70120824201,

247873586247,  
842625902072, 2764160465375, 8776228494225, 27038961793349,  
81019542614568, 236575764828149, 674366427736330, 1879524499776454  
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Sequence: A022596

Name: Expansion of Product\_{m:=1} (1+q^m)^32.

$$\frac{1}{16 e^{-\frac{4\pi}{3}}}$$

Printed: 1/16/exp(-4/3\*Pi)

Value: 4.12143532500402591628140

Number of terms: 512

Offset: 0

Sequence: 1, 32, 528, 6016, 53384, 393920, 2517824, 14329600, 74059812,  
352722720, 1565583648, 6533812352, 25823152256, 97218393280,  
350348856704,  
1213526698240, 4054279504266, 13103911398400, 41081428394096,  
125210147216000, 371754750363712, 1077136199182976,  
3050503922469440  
-----

Sequence: A022597

Name: Expansion of Product\_{m := 1} (1 + q^m)^(-2).

$$\frac{2^{1/4}}{e^{12\pi}}$$

Printed: 1/exp(1/12\*Pi)\*2^(1/4)

Value: .915291584708464979505504

Number of terms: 512

Offset: 0

Sequence: 1, -2, 1, -2, 4, -4, 5, -6, 9, -12, 13, -16, 21, -26, 29, -36, 46, -54,  
62, -74, 90, -106, 122, -142, 171, -200, 227, -264, 311, -358,  
408, -470, 545, -626, 709, -810, 933, -1062, 1198, -1362, 1555, -1760, 1980, -  
2238, 2536, -2858, 3205, -3602, 4063, -4560, 5092, -5704, 6400, -7150,  
7966  
-----

Sequence: A022598

Name: Expansion of Product\_{m:=1} (1+q^m)^(-3).

$$\frac{2^{3/8}}{e^{\frac{\pi}{8}}}$$

Printed: 1/exp(1/8\*Pi)\*2^(3/8)  
 Value: .875667445113630255639015  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -3, 3, -4, 9, -12, 15, -21, 30, -43, 54, -69, 94, -123, 153, -193,  
 252, -318, 391, -486, 609, -754, 918, -1119, 1376, -1680, 2019, -\  
 2432, 2946, -3540, 4220, -5034, 6015, -7157, 8463, -9999, 11835, -13956,  
 16374, -19206

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Sequence: A022599  
 Name: Expansion of Product\_{m=1} (1+q^m)^(-4).

$$\frac{\sqrt{2}}{e^{\frac{\pi}{6}}}$$

Printed: 1/exp(1/6\*Pi)\*2^(1/2)  
 Value: .837758685038133123102161  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -4, 6, -8, 17, -28, 38, -56, 84, -124, 172, -232, 325, -448, 594, -  
 784, 1049, -1388, 1796, -2320, 3005, -3864, 4912, -6216, 7877, -\  
 9940, 12430, -15488, 19309, -23972, 29580, -36408, 44766, -54876, 66978, -  
 81536, 99150, -120272, 145374, -175344, 211242

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Sequence: A022600  
 Name: Expansion of Product\_{m=1} (1+q^m)^(-5).

$$\frac{2^{5/8}}{e^{\frac{5\pi}{24}}}$$

Printed: 1/exp(5/24\*Pi)\*2^(5/8)  
 Value: .801491043515667415230227  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -5, 10, -15, 30, -56, 85, -130, 205, -315, 465, -665, 960, -1380,  
 1925, -2651, 3660, -5020, 6775, -9070, 12126, -16115, 21220, -27765,  
 36235, -47101, 60810, -78115, 100105, -127825, 162391, -205530, 259475, -  
 326565

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Sequence: A022601

Name: Expansion of Product\_{m=1} (1+q^m)^(-6).

$$\frac{2^{3/4}}{e^{\frac{\pi}{4}}}$$

Printed: 1/exp(1/4\*Pi)\*2^(3/4)

Value: .766793474431832656273141

Number of terms: 512

Offset: 0

Sequence: 1, -6, 15, -26, 51, -102, 172, -276, 453, -728, 1128, -1698, 2539, -3780, 5505, -7882, 11238, -15918, 22259, -30810, 42438, -58110, 78909, -106392, 142770, -190698, 253179, -334266, 439581, -575784, 750613, -974316, 1260336, -1624702, 2086530, -2670162  
-----

Sequence: A022602

Name: Expansion of Product\_{m=1} (1+q^m)^(-7).

$$\frac{2^{7/8}}{e^{\frac{7\pi}{24}}}$$

Printed: 1/exp(7/24\*Pi)\*2^(7/8)

Value: .733598007349096493021428

Number of terms: 512

Offset: 0

Sequence: 1, -7, 21, -42, 84, -175, 322, -547, 931, -1561, 2527, -3976, 6167, -9485, 14336, -21280, 31304, -45696, 65940, -94122, 133371, -187734, 262143, -363265, 500381, -685503, 933506, -1263794, 1702590, -2283379, 3047597  
-----

Sequence: A022604

Name: Expansion of Product\_{m=1} (1+q^m)^(-9).

$$\frac{2 \cdot 2^{1/8}}{e^{\frac{3\pi}{8}}}$$

Printed: 2/exp(3/8\*Pi)\*2^(1/8)

Value: .671456082685526667308286

Number of terms: 512

Offset: 0

Sequence: 1, -9, 36, -93, 207, -459, 957, -1827, 3357, -6061, 10620, -18045, 30006, -49122, 79128, -125247, 195435, -301599, 460167, -694026, 1036368, -1534305, 2252277, -3278709, 4736973, -6797196, 9689103, -13722487

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Sequence: A022605

Name: Expansion of Product\_{m:=1} (1+q^m)^(-10).

$$\frac{2 \cdot 2^{1/4}}{e^{\frac{5\pi}{12}}}$$

Printed: 2/exp(5/12\*Pi)\*2^(1/4)

Value: .642387892835833478213886

Number of terms: 512

Offset: 0

Sequence: 1, -10, 45, -130, 310, -712, 1555, -3130, 5990, -11190, 20316, -35750, 61405, -103570, 171730, -279782, 448785, -710830, 1112515, -1720550, 2632389, -3989480, 5992085, -8921670, 13176300, -19316144, 28118360, -40654520

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Sequence: A022606

Name: Expansion of Product\_{m:=1} (1+q^m)^(-11).

$$\frac{2 \cdot 2^{3/8}}{e^{\frac{11\pi}{24}}}$$

Printed: 2/exp(11/24\*Pi)\*2^(3/8)

Value: .614578101983373797053490

Number of terms: 512

Offset: 0

Sequence: 1, -11, 55, -176, 451, -1078, 2453, -5181, 10329, -19954, 37455, -68135, 120725, -209583, 357258, -598136, 985072, -1599807, 2565365, -4063191, 6362323, -9860851, 15138013, -23027730, 34729959, -51965067, 77174735

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Sequence: A022608

Name: Expansion of Product\_{m:=1} (1+q^m)^(-13).

$$\frac{2 \cdot 2^{5/8}}{e^{\frac{13\pi}{24}}}$$

Printed: 2/exp(13/24\*Pi)\*2^(5/8)  
 Value: .562518164891482806795362  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -13, 78, -299, 884, -2314, 5681, -13052, 28158, -58136, 116129,  
 -224692, 422214, -774372, 1390948, -2450565, 4240561, -7221383,  
 12121980, -20076953, 32836752, -53089309, 84922877, -134488770,  
 210979548

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Sequence: A022609  
 Name: Expansion of Product\_{m:=1} (1+q^m)^(-14).

$$\frac{2 \cdot 2^{3/4}}{e^{\frac{7\pi}{12}}}$$

Printed: 2/exp(7/12\*Pi)\*2^(3/4)  
 Value: .538166036386565032184292  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -14, 91, -378, 1197, -3290, 8386, -20008, 44800, -95578,  
 196679, -391692, 756798, -1424934, 2624119, -4735878, 8388919, -  
 14611226,  
 25065397, -42400456, 70790195, -116765126, 190454404, -307408346,  
 491306907

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Sequence: A022610  
 Name: Expansion of Product\_{m:=1} (1+q^m)^(-15).

$$\frac{2 \cdot 2^{7/8}}{e^{\frac{5\pi}{8}}}$$

Printed: 2/exp(5/8\*Pi)\*2^(7/8)  
 Value: .514868142570822906501812  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -15, 105, -470, 1590, -4593, 12160, -30075, 69780, -153750,  
 325728, -667020, 1323915, -2557140, 4824630, -8912759, 16148505, -  
 28746945

, 50364835, -86956260, 148098384, -249060745, 413975085, -680602545

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Sequence: A022611

Name: Expansion of Product\_{m:=1} (1+q^m)^(-16).

$$\frac{4}{e^{\frac{2\pi}{3}}}$$

Printed: 4/exp(2/3\*Pi)

Value: .492578844280532534566132

Number of terms: 512

Offset: 0

Sequence: 1, -16, 120, -576, 2076, -6304, 17344, -44416, 106630, -242480, 528608, -1112128, 2265656, -4486112, 8666112, -16376192, 30328593, -\ 55145872, 98613424, -173670400, 301550788, -516747872, 874774016, -1464096000

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Sequence: A022612

Name: Expansion of Product\_{m:=1} (1+q^m)^(-17).

$$\frac{4 \cdot 2^{1/8}}{e^{\frac{17\pi}{24}}}$$

Printed: 4/exp(17/24\*Pi)\*2^(1/8)

Value: .471254478129552378350004

Number of terms: 512

Offset: 0

Sequence: 1, -17, 136, -697, 2669, -8517, 24361, -64549, 160140, -375564, 842078, -1818932, 3800537, -7709449, 15239497, -29440226, 55697542, -\ 103382254, 188589925, -338602243, 599066162, -1045509435, 1801660255, -3068201310

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Sequence: A022613

Name: Expansion of Product\_{m:=1} (1+q^m)^(-18).

$$\frac{4 \cdot 2^{1/4}}{e^{\frac{3\pi}{4}}}$$

Printed: 4/exp(3/4\*Pi)\*2^(1/4)

Value: .450853270975392824744628

Number of terms: 512

Offset: 0

Sequence: 1, -18, 153, -834, 3384, -11340, 33729, -92430, 236727, -572120, 1318743, -2922948, 6259641, -13000770, 26283159, -51879720, 100210041, -189775800, 352975681, -645780060, 1163610432, -2067225594, 3624593265, -6277838652

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Sequence: A022614

Name: Expansion of Product\_{m=1} (1+q^m)^(-19).

$$\frac{4 \cdot 2^{3/8}}{e^{\frac{19 \pi}{24}}}$$

Printed: 4/exp(19/24\*Pi)\*2^(3/8)

Value: .431335258088158647780868

Number of terms: 512

Offset: 0

Sequence: 1, -19, 171, -988, 4237, -14896, 46075, -130549, 344888, -858325, 2032924, -4621313, 10137716, -21545639, 44525987, -89757843, 176925625, -341688495, 647687314, -1206921212, 2213842874, -4001882220, 7136374179

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Sequence: A022615

Name: Expansion of Product\_{m=1} (1+q^m)^(-20).

$$\frac{4 \sqrt{2}}{e^{\frac{5 \pi}{6}}}$$

Printed: 4/exp(5/6\*Pi)\*2^(1/2)

Value: .412662204862062276964312

Number of terms: 512

Offset: 0

Sequence: 1, -20, 190, -1160, 5245, -19324, 62150, -182040, 495750, -1269620, 3088376, -7197240, 16164595, -35136760, 74192590, -152674048, 306968470, -604298520, 1166898210, -2213813640, 4132159452, -7597272900

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Sequence: A022616

Name: Expansion of Product\_{m=1} (1+q^m)^(-21).

$$\frac{4 \cdot 2^{5/8}}{e^{\frac{7\pi}{8}}}$$

Printed: 4/exp(7/8\*Pi)\*2^(5/8)  
 Value: .394797531916145465152079  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -21, 210, -1351, 6426, -24780, 82845, -250806, 703731, -  
 1853481, 4628337, -11052867, 25403952, -56451192, 121738767, -  
 255623851,  
 524037507, -1051143723, 2066899387, -3990768663, 7577013360, -  
 14163858895

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Sequence: A022617  
 Name: Expansion of Product\_{m:=1} (1+q^m)^(-22).

$$\frac{4 \cdot 2^{3/4}}{e^{\frac{11\pi}{12}}}$$

Printed: 4/exp(11/12\*Pi)\*2^(3/4)  
 Value: .377706243437486203499608  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -22, 231, -1562, 7799, -31438, 109208, -341660, 987327, -  
 2672868, 6848490, -16752958, 39388481, -89439944, 196910681, -  
 421739450,  
 881199561, -1800336692, 3603535166, -7078509064, 13665905671

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Sequence: A022618  
 Name: Expansion of Product\_{m:=1} (1+q^m)^(-23).

$$\frac{4 \cdot 2^{7/8}}{e^{\frac{23\pi}{24}}}$$

Printed: 4/exp(23/24\*Pi)\*2^(7/8)  
 Value: .361354858626519563331260  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -23, 253, -1794, 9384, -39491, 142462, -460483, 1370041, -  
 3810479, 10013533, -25082512, 60303171, -139870107, 314254704, -  
 686285914,

1461009887, -3039222369, 6190256915, -12366732828, 24269855093

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Sequence: A022620

Name: Expansion of Product\_{m:=1} (1+q^m)^(-25).

$$\frac{8 \cdot 2^{1/8}}{e^{\frac{25 \pi}{24}}}$$

Printed: 8/exp(25/24\*Pi)\*2^(1/8)

Value: .330745061194370418039502

Number of terms: 512

Offset: 0

Sequence: 1, -25, 300, -2325, 13275, -60655, 235525, -811975, 2558575, -7502175, 20713560, -54345175, 136483700, -329961200, 771284950, -1749490965, 3862641850, -8322360350, 17536187475, -36204137625, 73353404555, -146061623800, 286183499350, -552361219950, 1051231017350

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Sequence: A022621

Name: Expansion of Product\_{m:=1} (1+q^m)^(-26).

$$\frac{8 \cdot 2^{1/4}}{e^{\frac{13 \pi}{12}}}$$

Printed: 8/exp(13/12\*Pi)\*2^(1/4)

Value: .316426685832881440226936

Number of terms: 512

Offset: 0

Sequence: 1, -26, 325, -2626, 15626, -74256, 298831, -1063426, 3447132, -10372882, 29340142, -78744042, 202029633, -498419898, 1187802148, -2744629914, 6168519890, -13520237380, 28964225680, -60763817556, 125042511217, -252773944748, 502601225828, -984061449124, 1899179853506

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Sequence: A022622

Name: Expansion of Product\_{m:=1} (1+q^m)^(-27).

$$\frac{8 \cdot 2^{3/8}}{e^{\frac{9 \pi}{8}}}$$

Printed: 8/exp(9/8\*Pi)\*2^(3/8)

Value: .302728171195093524810738  
Number of terms: 512  
Offset: 0

Sequence: 1, -27, 351, -2952, 18279, -90234, 376065, -1380861, 4603419, -  
14211732, 41168493, -112989411, 296067411, -745157691, 1809973404, -\  
4259279106, 9741879531, -21715736634, 47285714262, -100777640049,  
210581729640, -432065248731, 871606288422, -1730764207107,  
3386501241606

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Sequence: A022623  
Name: Expansion of Product\_{m=1} (1+q^m)^(-28).

$$\frac{8 \sqrt{2}}{e^{\frac{7\pi}{6}}}$$

Printed: 8/exp(7/6\*Pi)\*2^(1/2)  
Value: .289622682720025638203093  
Number of terms: 512  
Offset: 0

Sequence: 1, -28, 378, -3304, 21259, -108892, 469630, -1778536, 6096125, -  
19303088, 57249374, -160633424, 429762354, -1103189388, 2730461208, -\  
6542033848, 15223719392, -34504452668, 76349114366, -165267288816,  
350579820199, -729912979244, 1493568080228, -3007227042624,  
5964244118126

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Sequence: A022624  
Name: Expansion of Product\_{m=1} (1+q^m)^(-29).

$$\frac{8 2^{5/8}}{e^{\frac{29\pi}{24}}}$$

Printed: 8/exp(29/24\*Pi)\*2^(5/8)  
Value: .277084547549052632953638  
Number of terms: 512  
Offset: 0

Sequence: 1, -29, 406, -3683, 24592, -130558, 582233, -2273136, 8008524, -  
26002734, 78934897, -226364662, 618201990, -1618116248, 4079918534, -\  
9950307189, 23552872174, -54265164588, 121990316096, -268139308160,  
577310455320, -1219428331519, 2530473842822, -5165078293276,  
10381346324862

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Sequence: A022625

Name: Expansion of Product\_{m:=1} (1+q^m)^(-30).

$$\frac{8 \cdot 2^{3/4}}{e^{\frac{5\pi}{4}}}$$

Printed: 8/exp(5/4\*Pi)\*2^(3/4)  
Value: .265089204234329222889094  
Number of terms: 512  
Offset: 0

Sequence: 1, -30, 435, -4090, 28305, -155586, 716910, -2884080, 10440930, -  
34752790, 107952705, -316326840, 881621260, -2352438330, 6041102175, -\  
14993771926, 36092874960, -84513784620, 192981056950, -430636738770,  
940848408276

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Sequence: A022626  
Name: Expansion of Product\_{m:=1} (1+q^m)^(-31).

$$\frac{8 \cdot 2^{7/8}}{e^{\frac{31\pi}{24}}}$$

Printed: 8/exp(31/24\*Pi)\*2^(7/8)  
Value: .253613154624400400416130  
Number of terms: 512  
Offset: 0

Sequence: 1, -31, 465, -4526, 32426, -184357, 877052, -3633851, 13513458, -  
46099108, 146495398, -438514468, 1246964119, -3391183930, 8867709030, -\  
22393552057, 54808232438, -130404256148, 302394884204, -684929956630,  
1518203338688

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Sequence: A022627  
Name: Expansion of Product\_{m:=1} (1+q^m)^(-32).

$$\frac{16}{e^{\frac{4\pi}{3}}}$$

Printed: 16/exp(4/3\*Pi)  
Value: .242633917832745119240656  
Number of terms: 512  
Offset: 0

Sequence: 1, -32, 496, -4992, 36984, -217280, 1066432, -4548352, 17369116,

-60711456, 197327712, -603261056, 1749861312, -4849210560,  
12909347456,  
-33162318080, 82507571334, -199432268416, 469559849680, -  
1079335967872

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Sequence: A023003

Name: Number of partitions of n into parts of 4 kinds.

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^4 \sqrt{2}}{\pi e^{\frac{\pi}{6}}}$$

Printed: 2/Pi\*GAMMA(3/4)^4/exp(1/6\*Pi)\*2^(1/2)

Value: 1.20263612122762430700800

Number of terms: 512

Offset: 0

Sequence: 1, 4, 14, 40, 105, 252, 574, 1240, 2580, 5180, 10108, 19208,  
35693, 64960, 116090, 203984, 353017, 602348, 1014580, 1688400, 2778517,  
4524760, 7296752, 11658920, 18468245, 29015700, 45235414, 70005376,  
107585845, 164245380, 249162620, 375704920, 563251038

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Sequence: A023004

Name: Number of partitions of n into parts of 5 kinds.

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^5 2^{7/8}}{\pi^{5/4} e^{\frac{5\pi}{24}}}$$

Printed: 2/Pi^(5/4)\*GAMMA(3/4)^5/exp(5/24\*Pi)\*2^(7/8)

Value: 1.25941193516900812880157

Number of terms: 512

Offset: 0

Sequence: 1, 5, 20, 65, 190, 506, 1265, 2990, 6765, 14725, 31027, 63505,  
126730, 247170, 472295, 885723, 1633000, 2963840, 5302075, 9358470,  
16313440, 28107365, 47902010, 80803485, 134992865, 223474667,  
366772720, 597049255, 964375855, 1546208695, 2461649861, 3892774130

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Sequence: A023005

Name: Number of partitions of n into parts of 6 kinds.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^6 2^{1/4}}{\pi^{3/2} e^{\frac{\pi}{4}}}$$

Printed: 4/Pi^(3/2)\*GAMMA(3/4)^6/exp(1/4\*Pi)\*2^(1/4)

Value: 1.31886810519799737130740

Number of terms: 512

Offset: 0

Sequence: 1, 6, 27, 98, 315, 918, 2492, 6372, 15525, 36280, 81816, 178794,  
380051, 788004, 1597725, 3174210, 6190182, 11867310, 22395359,  
41650050,  
76413078, 138421358, 247783113, 438616728, 768291650, 1332444330,  
2289213495, 3898064226, 6581591157, 11023247880

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Sequence: A023006

Name: Number of partitions of n into parts of 7 kinds.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^7 2^{5/8}}{\pi^{7/4} e^{\frac{7\pi}{24}}}$$

Printed: 4/Pi^(7/4)\*GAMMA(3/4)^7/exp(7/24\*Pi)\*2^(5/8)

Value: 1.38113116950502256931048

Number of terms: 512

Offset: 0

Sequence: 1, 7, 35, 140, 490, 1547, 4522, 12405, 32305, 80465, 192899,  
447146, 1006145, 2204475, 4715510, 9869132, 20247710, 40786690,  
80782800,  
157510780, 302666903, 573720808, 1073720305, 1985506775, 3630307835,  
6567206471, 11760658378, 20860415590, 36665885170, 63891010155,  
110415782785,  
189320804673, 322174588225

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Sequence: A023007

Name: Number of partitions of n into parts of 8 kinds.

$$\frac{8 \Gamma\left(\frac{3}{4}\right)^8}{\pi^2 e^{\frac{\pi}{3}}}$$

Printed: 8/Pi^2\*GAMMA(3/4)^8/exp(1/3\*Pi)

Value: 1.44633364008142506830266  
Number of terms: 512  
Offset: 0

Sequence: 1, 8, 44, 192, 726, 2464, 7704, 22528, 62337, 164560, 417140,  
1020416, 2418710, 5573568, 12520744, 27484160, 59068372, 124505880,  
257770964, 524871424, 1052316364, 2079491744, 4053978040, 7803219968,  
14840711765, 27907041392, 51917588800, 95608651776

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Sequence: A023008  
Name: Number of partitions of n into parts of 9 kinds.

$$\frac{8 \Gamma\left(\frac{3}{4}\right)^9 2^{3/8}}{\pi^{9/4} e^{\frac{3\pi}{8}}}$$

Printed: 8/Pi^(9/4)\*GAMMA(3/4)^9/exp(3/8\*Pi)\*2^(3/8)  
Value: 1.51461428473943218441983  
Number of terms: 512  
Offset: 0

Sequence: 1, 9, 54, 255, 1035, 3753, 12483, 38709, 113265, 315445, 841842,  
2164185, 5382276, 12994290, 30543210, 70066809, 157199805, 345552183,  
745377215, 1579915080, 3294664578, 6766656315, 13700560491,  
27370137195, 53991639855, 105242612526, 202837976145

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Sequence: A023009  
Name: Number of partitions of n into parts of 10 kinds.

$$\frac{8 \Gamma\left(\frac{3}{4}\right)^{10} 2^{3/4}}{\pi^{5/2} e^{\frac{5\pi}{12}}}$$

Printed: 8/Pi^(5/2)\*GAMMA(3/4)^10/exp(5/12\*Pi)\*2^(3/4)  
Value: 1.58611842244614593407796  
Number of terms: 512  
Offset: 0

Sequence: 1, 10, 65, 330, 1430, 5512, 19415, 63570, 195910, 573430,  
1605340, 4322110, 11240645, 28341730, 69488650, 166096270, 387890625,  
886698670  
, 1987322415, 4373271870, 9461022285, 20144164040, 42254620785,  
87398226990, 178396331100, 359618772656, 716409453320

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Sequence: A023010

Name: Number of partitions of n into parts of 11 kinds.

$$\frac{16 \Gamma\left(\frac{3}{4}\right)^{11} 2^{1/8}}{\pi^{11/4} e^{\frac{11\pi}{24}}}$$

Printed: 16/Pi^(11/4)\*GAMMA(3/4)^11/exp(11/24\*Pi)\*2^(1/8)

Value: 1.66099823260009285811875

Number of terms: 512

Offset: 0

Sequence: 1, 11, 77, 418, 1925, 7854, 29183, 100529, 325193, 997150,  
2919411, 8207563, 22259237, 58454165, 149104450, 370410700, 898202998,  
2130141651, 4949034937, 11281187225, 25262712629, 55641782779,  
120661583781, 257862888360, 543532730675, 1130864017283

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Sequence: A023011

Name: Number of partitions of n into parts of 13 kinds.

$$\frac{16 \Gamma\left(\frac{3}{4}\right)^{13} 2^{7/8}}{\pi^{13/4} e^{\frac{13\pi}{24}}}$$

Printed: 16/Pi^(13/4)\*GAMMA(3/4)^13/exp(13/24\*Pi)\*2^(7/8)

Value: 1.82152984855498324496146

Number of terms: 512

Offset: 0

Sequence: 1, 13, 104, 637, 3276, 14820, 60697, 229372, 810654, 2706366,  
8600501, 26173966, 76654656, 216903064, 594973106, 1586553501,  
4122693185,  
10461067253, 25967050382, 63154957281, 150708128116, 353304272945,  
814564136529, 1848834255034, 4134822087942

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Sequence: A023012

Name: Number of partitions of n into parts of 14 kinds.

$$\frac{32 \Gamma\left(\frac{3}{4}\right)^{14} 2^{1/4}}{\pi^{7/2} e^{\frac{7\pi}{12}}}$$

Printed: 32/Pi^(7/2)\*GAMMA(3/4)^14/exp(7/12\*Pi)\*2^(1/4)

Value: 1.90752330737831138430138  
Number of terms: 512  
Offset: 0

Sequence: 1, 14, 119, 770, 4165, 19754, 84602, 333608, 1228080, 4263770,  
14071827, 44420796, 134793918, 394805110, 1119974875, 3086034350,  
8280022023, 21678277754, 55486209625, 139065013640, 341779759755,  
824753397814, 1956347387428

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Sequence: A023013  
Name: Number of partitions of n into parts of 15 kinds.

$$\frac{32 \Gamma\left(\frac{3}{4}\right)^{15} 2^{5/8}}{\pi^{15/4} e^{\frac{5\pi}{8}}}$$

Printed: 32/Pi^(15/4)\*GAMMA(3/4)^15/exp(5/8\*Pi)\*2^(5/8)  
Value: 1.99757647182011499076484  
Number of terms: 512  
Offset: 0

Sequence: 1, 15, 135, 920, 5220, 25893, 115700, 475065, 1817910, 6551390,  
22414314, 73265580, 229972855, 696109950, 2039031360, 5796944357,  
16036186005, 43259046975, 114012183695, 294067720380, 743368453326,  
1844121021245, 4494803760045

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Sequence: A023014  
Name: Number of partitions of n into parts of 16 kinds.

$$\frac{64 \Gamma\left(\frac{3}{4}\right)^{16}}{\pi^4 e^{\frac{2\pi}{3}}}$$

Printed: 64/Pi^4\*GAMMA(3/4)^16/exp(2/3\*Pi)  
Value: 2.09188099843118523085746  
Number of terms: 512  
Offset: 0

Sequence: 1, 16, 152, 1088, 6460, 33440, 155584, 663936, 2636326, 9845040,  
34861152, 117809728, 381946360, 1193074144, 3603543040, 10556065152,  
30068145905, 83466484112, 226236086512, 599785472000, 1557643542308,  
3967888347232, 9926348625408, 24413219138816

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Sequence: A023015

Name: Number of partitions of n into parts of 17 kinds.

$$\frac{64 \Gamma\left(\frac{3}{4}\right)^{17} 2^{3/8}}{\pi^{17/4} e^{\frac{17\pi}{24}}}$$

Printed: 64/Pi^(17/4)\*GAMMA(3/4)^17/exp(17/24\*Pi)\*2^(3/8)

Value: 2.19063759176650697441218

Number of terms: 512

Offset: 0

Sequence: 1, 17, 170, 1275, 7905, 42619, 206091, 912475, 3753600,  
14503040, 53073898, 185172670, 619237835, 1993524975, 6200890505,  
18693654410,  
54763023032, 156250892610, 435071511875, 1184288668525,  
3156320339542, 8247548150893, 21155326555195, 53326448236250  
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Sequence: A023016

Name: Number of partitions of n into parts of 18 kinds.

$$\frac{64 \Gamma\left(\frac{3}{4}\right)^{18} 2^{3/4}}{\pi^{9/2} e^{\frac{3\pi}{4}}}$$

Printed: 64/Pi^(9/2)\*GAMMA(3/4)^18/exp(3/4\*Pi)\*2^(3/4)

Value: 2.29405643153674175368995

Number of terms: 512

Offset: 0

Sequence: 1, 18, 189, 1482, 9576, 53676, 269325, 1235286, 5256711,  
20985272, 79260723, 285139764, 982349361, 3255488082, 10416507579,  
32281134120,  
97154549289, 284625019800, 813310723925, 2270826800172,  
6204926551824, 16615751700618  
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Sequence: A023017

Name: Number of partitions of n into parts of 19 kinds.

$$\frac{512 \Gamma\left(\frac{3}{4}\right)^{19} \sqrt{2}}{\pi^{19/4} e^{\frac{19\pi}{12}}}$$

Printed: 512/Pi^(19/4)\*GAMMA(3/4)^19/exp(19/12\*Pi)\*2^(1/2)

Value: 1.03622154401053634412907  
Number of terms: 512  
Offset: 0

Sequence: 1, 19, 209, 1710, 11495, 66880, 347681, 1649637, 7252300,  
29875505, 116319938, 430976031, 1527928814, 5206792965, 17119704425,  
54484060983, 168297474675, 505762373795, 1481733152790,  
4239676354650, 11866652524496, 32536693623850

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Sequence: A023018  
Name: Number of partitions of n into parts of 20 kinds.

$$\frac{128 \Gamma\left(\frac{3}{4}\right)^{20} \sqrt{2}}{\pi^5 e^{\frac{5\pi}{6}}}$$

Printed: 128/Pi^5\*GAMMA(3/4)^20/exp(5/6\*Pi)\*2^(1/2)  
Value: 2.51577165002305065408204  
Number of terms: 512  
Offset: 0

Sequence: 1, 20, 230, 1960, 13685, 82524, 443870, 2175800, 9869990,  
41907380, 168012824, 640438680, 2334121995, 8171039800, 27580783270,  
90058003200, 285253928790, 878572253720, 2636748302650,  
7725084195240, 22130265931900, 62079251390180

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Sequence: A023019  
Name: Number of partitions of n into parts of 21 kinds.

$$\frac{128 \Gamma\left(\frac{3}{4}\right)^{21} 2^{7/8}}{\pi^{21/4} e^{\frac{7\pi}{8}}}$$

Printed: 128/Pi^(21/4)\*GAMMA(3/4)^21/exp(7/8\*Pi)\*2^(7/8)  
Value: 2.63453989637749584915803  
Number of terms: 512  
Offset: 0

Sequence: 1, 21, 252, 2233, 16170, 100926, 560945, 2837418, 13266099,  
57994475, 239170239, 937026279, 3507380170, 12601619226, 43628951025,  
146036139347, 473924014599, 1494785958435, 4591920193357,  
13764656869425, 40328218603134

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Sequence: A023020

Name: Number of partitions of n into parts of 22 kinds.

$$\frac{256 \Gamma\left(\frac{3}{4}\right)^{22} 2^{1/4}}{\pi^{11/2} e^{\frac{11\pi}{12}}}$$

Printed: 256/Pi^(11/2)\*GAMMA(3/4)^22/exp(11/12\*Pi)\*2^(1/4)

Value: 2.75891512870063217710218

Number of terms: 512

Offset: 0

Sequence: 1, 22, 275, 2530, 18975, 122430, 702328, 3661900, 17627775,  
79264900, 335937954, 1351507830, 5191041625, 19125838600,  
67862904725,  
232671319474, 773027485065, 2494957906100, 7839428942950,  
24025993453000, 71941861591215

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Sequence: A023021

Name: Number of partitions of n into parts of 23 kinds.

$$\frac{2048 \Gamma\left(\frac{3}{4}\right)^{23} \sqrt{2}}{\pi^{23/4} e^{\frac{23\pi}{12}}}$$

Printed: 2048/Pi^(23/4)\*GAMMA(3/4)^23/exp(23/12\*Pi)\*2^(1/2)

Value: 1.04401274406491818988530

Number of terms: 512

Offset: 0

Sequence: 1, 23, 299, 2852, 22126, 147407, 871838, 4680845, 23177583,  
107100903, 466066181, 1923780950, 7576060505, 28601630657,  
103928814438,  
364712523658, 1239637963457, 4091266414235, 13139808783725,  
41145568478988, 125833948024603, 376417734772625, 1102878148698235

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Sequence: A025233

Name: Expansion of Product\_{m=1} (1 + q^m)^48.

$$\frac{1}{64 e^{-2\pi}}$$

Printed: 1/64/exp(-2\*Pi)

Value: 8.36705711757444900786006

Number of terms: 512

Offset: 0

Sequence: 1, 48, 1176, 19648, 252204, 2655456, 23901760, 189208704,  
 1344644814, 8713158928, 52107076128, 290374290624, 1519725061816,  
 7518508799904  
 , 35352238216704, 158716136933504, 683059486979301, 2827559773199856

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Sequence: A025466

Name: Number of partitions of n into 4 distinct nonnegative cubes.

$$\frac{1}{e^{72\pi}}$$

Printed: 1/exp(72\*Pi)

Value: .581972580415526173629644e-98

Number of terms: 512

Offset: 0

Sequence: 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 1, 0, 0,  
 0,  
 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0

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Sequence: A025469

Name: Number of partitions of n into 3 distinct positive cubes.

$$\frac{1}{e^{72\pi}}$$

Printed: 1/exp(72\*Pi)

Value: .581972580415526173629644e-98

Number of terms: 512

Offset: 0

Sequence: 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0,  
 0,  
 0,  
 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0

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Sequence: A027364

Name: Coefficients of unique normalized cusp form Delta\_16 of weight 16 for full modular group.

$$\frac{3 \pi^8}{16384 \Gamma\left(\frac{3}{4}\right)^{32} e^{-2 \pi}}$$

Printed: 3/16384\*Pi^8/GAMMA(3/4)^32/exp(-2\*Pi)

Value: 1.39178306965430887468103

Number of terms: 512

Offset: 1

Sequence: 1, 216, -3348, 13888, 52110, -723168, 2822456, -4078080, -3139803, 11255760, 20586852, -46497024, -190073338, 609650496, -174464280, -\ 1335947264, 1646527986, -678197448, 1563257180, 723703680, -9449582688, 4446760032, 9451116072, 13653411840, -27802126025, -41055841008

Sequence: A028512

Name: Character of extremal vertex operator algebra of rank 16.

$$\frac{144}{e^{\frac{4 \pi}{3}}}$$

Printed: 144/exp(4/3\*Pi)

Value: 2.18370526049470607316590

Number of terms: 512

Offset: 0

Sequence: 1, 496, 69752, 2115008, 34670620, 394460000, 3499148224, 25817318016, 165011628166, 939112182480, 4853601292512, 23116070653888, 102602164703800, 428200065370144, 1692346392263680, 6371305129660032

Sequence: A028513

Name: Expansion of A007245^4.

$$\frac{20736}{e^{\frac{8 \pi}{3}}}$$

Printed: 20736/exp(8/3\*Pi)

Value: 4.76856866471225210849720

Number of terms: 512

Offset: 0

Sequence: 1, 992, 385520, 73424000, 7032770680, 330234251072, 9708251628992, 205208814844160, 3384709979113500,

45920987396301280,  
531402725344000864, 5384625599438260096, 48726640432968418240,  
399835655086212744000

---

Sequence: A028514  
Name: Expansion of  $A007245^5$ .

$$\frac{248832}{e^{\frac{10\pi}{3}}}$$

Printed: 248832/exp(10/3\*Pi)  
Value: 7.04668812520897017001383  
Number of terms: 512  
Offset: 0

Sequence: 1, 1240, 635660, 173158720, 26866494270, 2390772025248,  
123244340937400, 4235204881123840, 107367902876988285,  
2147149471392237840,  
35461233105160369124, 499800581310885326080,  
6159994549959101077830

---

Sequence: A028515  
Name: Expansion of  $A007245^6$ .

$$\frac{2985984}{e^{4\pi}}$$

Printed: 2985984/exp(4\*Pi)  
Value: 10.4131484781623611945128  
Number of terms: 512  
Offset: 0

Sequence: 1, 1488, 947304, 335950912, 72474624276, 9790124955552,  
833107628914688, 45630592148400000, 1754954450906393538,  
51062104386000089648,  
1186840963302480101376, 22924552119951492244800,  
378933532779364657975000

---

Sequence: A028516  
Name: Expansion of  $A007245^8$ .

$$\frac{429981696}{e^{\frac{16\pi}{3}}}$$

Printed: 429981696/exp(16/3\*Pi)

Value: 22.7392471100755910674036  
Number of terms: 512  
Offset: 0

Sequence: 1, 1984, 1755104, 911719680, 308364427760, 71226326491264,  
11488232538492032, 1307043714624803328, 105853456783515750520,  
6235592163326852466880, 278442896270934914719552,  
9831877365857693440182016, 284555804926510720221660608  
-----

Sequence: A028517  
Name: Expansion of A007245^24.

$$\frac{79496847203390844133441536}{e^{16\pi}}$$

Printed: 79496847203390844133441536/exp(16\*Pi)  
Value: 11757.8588873639930909988  
Number of terms: 512  
Offset: 0

Sequence: 1, 5952, 17074080, 31437448960, 41744990458320,  
42586194035620224, 34719458595864031616, 23234118924242879116800,  
13008589100166071977563240, 6180784894711776010070160960,  
2519157092418897953376356488128  
-----

Sequence: A029552  
Name: Expansion of phi(x) / f(-x) in powers of x where phi(), f() are Ramanujan theta functions.

$$\frac{2^{3/8}}{e^{\frac{\pi}{24}}}$$

Printed: 1/exp(1/24\*Pi)\*2^(3/8)  
Value: 1.13772482289026011594338  
Number of terms: 512  
Offset: 0

Sequence: 1, 3, 4, 7, 13, 19, 29, 43, 62, 90, 126, 174, 239, 325, 435, 580, 769,  
1007, 1313, 1702, 2191, 2808, 3580, 4539, 5735, 7216, 9036, 11278,  
14028, 17383, 21474, 26448, 32471, 39759, 48550, 59123, 71829, 87053,  
105249, 126975, 152858, 183623  
-----

Sequence: A029769  
Name: Expansion of eta(q^2)^12 / theta\_3(q)^3 in powers of q.

$$\frac{\pi^{9/4}}{64 \Gamma\left(\frac{3}{4}\right)^9 e^{-\pi}}$$

Printed: 1/64\*Pi^(9/4)/GAMMA(3/4)^9/exp(-Pi)

Value: .762481716239479072651334

Number of terms: 512

Offset: 1

Sequence: 1, -6, 12, -8, 0, 12, -48, 48, -15, 60, -12, -96, 0, -120, 240, 64, 96, -234, -156, 0, 0, 444, -240, -96, -335, 420, 144, 384, 0, -600, -480, -384, 672, -264, 840, 120, 0, -348, 912, -480, -768, -168, -684, 96, 0, 1416, -672, 768, 673, 510, -2328, 0, 0, 144, 1200, 960, -1248, -1332, 1500, -1920

Sequence: A029838

Name: Expansion of square root of q times normalized Hauptmodul for Gamma(4) in powers of q^8.

$$\frac{2^{5/8}}{e^{\frac{\pi}{8}}}$$

Printed: 1/exp(1/8\*Pi)\*2^(5/8)

Value: 1.04134995610538383302568

Number of terms: 512

Offset: 0

Sequence: 1, 1, -1, 0, 1, 0, -1, -1, 2, 1, -2, -1, 2, 1, -3, -1, 4, 2, -5, -2, 5, 2, -6, -3, 8, 4, -9, -4, 10, 4, -12, -6, 15, 7, -17, -7, 19, 8, -22, -10, 26, 12, -30, -13, 33, 14, -38, -17, 45, 21, -51, -22, 56, 24, -64, -29, 74, 33, -83, -36, 92, 40, -104, -46, 119, 53, -133, -58, 147, 63, -165, -73, 187, 83, -208, -90, 229, 99, -256

Sequence: A029839

Name: McKay-Thompson series of class 16B for the Monster group.

$$\frac{2 \cdot 2^{1/4}}{e^{\frac{\pi}{4}}}$$

Printed: 2/exp(1/4\*Pi)\*2^(1/4)

Value: 1.08440973108068483577992

Number of terms: 512

Offset: 0

Sequence: 1, 2, -1, -2, 3, 2, -4, -4, 5, 8, -8, -10, 11, 12, -15, -18, 22, 26, -29, -

34, 38, 42, -51, -56, 66, 78, -85, -98, 109, 120, -139, -156,  
 176, 202, -222, -250, 279, 306, -346, -384, 429, 482, -530, -590, 650, 714, -  
 797, -876, 972, 1080, -1180, -1304, 1431, 1562, -1728, -1892, 2078, 2290,  
 -2496

---

Sequence: A029840

Name: Expansion of Product\_{m=1} ((1+q^(2\*m-1))/(1+q^(2\*m)))^3.

$$\frac{2 \cdot 2^{7/8}}{e^{\frac{3\pi}{8}}}$$

Printed: 2/exp(3/8\*Pi)\*2^(7/8)

Value: 1.12925002586112224022092

Number of terms: 512

Offset: 0

Sequence: 1, 3, 0, -5, 3, 9, -7, -15, 9, 27, -12, -45, 22, 66, -36, -99, 51, 153, -  
 73, -222, 108, 311, -159, -441, 221, 624, -297, -863, 414, 1170,  
 -575, -1584, 765, 2144, -1014, -2862, 1361, 3774, -1809, -4964, 2361, 6516, -  
 3063, -8481

---

Sequence: A029841

Name: McKay-Thompson series of class 8E for the Monster group.

$$\frac{4 \sqrt{2}}{e^{\frac{\pi}{2}}}$$

Printed: 4/exp(1/2\*Pi)\*2^(1/2)

Value: 1.17594446486248320313428

Number of terms: 512

Offset: 0

Sequence: 1, 4, 2, -8, -1, 20, -2, -40, 3, 72, 2, -128, -4, 220, -4, -360, 5, 576,  
 8, -904, -8, 1384, -10, -2088, 11, 3108, 12, -4552, -15, 6592, -\  
 18, -9448, 22, 13392, 26, -18816, -29, 26216, -34, -36224, 38, 49700, 42, -  
 67728, -51, 91688

---

Sequence: A029842

Name: Expansion of Product\_{m=1} ((1+q^(2\*m-1))/(1+q^(2\*m)))^5.

$$\frac{8 \cdot 2^{1/8}}{e^{\frac{5\pi}{8}}}$$

Printed:  $8/\exp(5/8*\text{Pi})*2^{(1/8)}$   
 Value: 1.22456971686691596476718  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 5, 5, -10, -10, 31, 20, -75, -40, 150, 84, -280, -165, 520, 290, -935, -495, 1595, 855, -2640, -1424, 4315, 2265, -6925, -3570, 10860, 5605, -16740, -8615, 25520, 12984, -38455, -19390, 57150, 28740, -83961, -42110, 122320

Sequence: A029843  
 Name: Expansion of Product\_{m=1} ((1+q^(2\*m-1))/(1+q^(2\*m)))^6.

$$\frac{8 \cdot 2^{3/4}}{e^{\frac{3\pi}{4}}}$$

Printed:  $8/\exp(3/4*\text{Pi})*2^{(3/4)}$   
 Value: 1.27520562090734524833661  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 6, 9, -10, -24, 36, 65, -102, -153, 232, 327, -468, -663, 918, 1287, -1768, -2391, 3240, 4289, -5676, -7488, 9758, 12753, -16524, -21250, 27300, 34758, -44128, -55896, 70380, 88519, -110874, -138285, 172136, 213315

Sequence: A029844  
 Name: Expansion of Product\_{m=1} ((1+q^(2\*m-1))/(1+q^(2\*m)))^7.

$$\frac{16 \cdot 2^{3/8}}{e^{\frac{7\pi}{8}}}$$

Printed:  $16/\exp(7/8*\text{Pi})*2^{(3/8)}$   
 Value: 1.32793531735720271065924  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 7, 14, -7, -42, 28, 133, -90, -357, 231, 833, -511, -1792, 1064, 3695, -2163, -7329, 4221, 13923, -7847, -25536, 14161, 45703, -25109, -80010, 43526, 136941, -73654, -229823, 122493, 379582, -200935, -617729, 324751

Sequence: A029845  
 Name: Expansion of 16/lambda(z) in powers of nome q = exp(Pi\*i\*z).

$$\frac{32}{e^\pi}$$

Printed: 32/exp(Pi)  
 Value: 1.38284538444071199278137  
 Number of terms: 512  
 Offset: -1

Sequence: 1, 8, 20, 0, -62, 0, 216, 0, -641, 0, 1636, 0, -3778, 0, 8248, 0, -17277, 0, 34664, 0, -66878, 0, 125312, 0, -229252, 0, 409676, 0, -716420, 0, 1230328, 0, -2079227, 0, 3460416, 0, -5677816, 0, 9198424, 0, -14729608, 0, 23328520, 0, -36567242, 0, 56774712, 0

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Sequence: A029862  
 Name: Expansion of  $q^{(5/24)} / (\eta(q) * \eta(q^2)^2)$  in powers of  $q$

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^3 2^{3/8}}{\pi^{3/4} e^{\frac{5\pi}{24}}}$$

Printed: 2/Pi^(3/4)\*GAMMA(3/4)^3/exp(5/24\*Pi)\*2^(3/8)  
 Value: 1.05113900581674187162521  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 4, 5, 14, 18, 41, 54, 109, 145, 267, 357, 618, 826, 1359, 1815, 2872, 3824, 5859, 7774, 11600, 15329, 22362, 29425, 42113, 55167, 77648, 101267, 140479, 182395, 249789, 322906, 437199, 562755, 754171, 966713, 1283630, 1638716, 2157763

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Sequence: A030199  
 Name: Expansion of  $x * \text{Product}_{\{k:=1\}} (1 - x^k) * (1 - x^{(23*k)})$ .

$$\frac{\pi^{1/4} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{12}}}$$

Printed: 1/2\*Pi^(1/4)/GAMMA(3/4)/exp(-1/12\*Pi)\*2^(1/2)  
 Value: .998129069925958513279955  
 Number of terms: 512  
 Offset: 1

Sequence: 1, -1, -1, 0, 0, 1, 0, 1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 0, 0, 0, 1, -1, 1, 1, 1, 0, -1, 0, -1, 0, 0, 0, 0, 0, 0, 0, 1, 0, -1, 0, 0, 0, 0, -1, -1, 1, 1, -1, 0, 0, 0, -1, 0, 0, 0, 1, 2, 0, 0, 1, 0, 1, 0, 0, 0, 0, -1, 0, -1,

0, -1, 0, -1, 0, 0, -1, 0, 0, -1

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Sequence: A030204

Name: Expansion of  $q^{(-1/8)} * \eta(q) * \eta(q^2)$  in powers of  $q$ .

$$\frac{\sqrt{\pi} 2^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{8}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/8 * \pi) * 2^{(1/8)}$

Value: .953132203705218857732710

Number of terms: 512

Offset: 0

Sequence: 1, -1, -2, 1, 0, 2, 1, 0, 0, -2, 1, -2, -2, 0, 2, -1, 0, 2, 0, 2, 0, 1, 0, 0,  
-2, 0, 0, 0, -1, -2, -2, 0, 2, 0, 0, -2, 3, 0, 0, 2, 0, 0,  
2, 0, 2, -1, -2, 0, 0, 0, -2, 2, 0, -2, -2, -1, -2, 2, 0, 0, 0, 0, 0, 0, 2, 1, 0, 0, 0,  
0, 2, 2, 0, 2, -2, 0, -2, 1, 0

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Sequence: A030211

Name: Expansion of  $q^{(-1/2)} * (\eta(q) * \eta(q^2))^4$  in powers of  $q$ .

$$\frac{\pi^2 \sqrt{2}}{16 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{2}}}$$

Printed:  $1/16 * \pi^2 / \text{GAMMA}(3/4)^8 / \exp(-1/2 * \pi) * 2^{(1/2)}$

Value: .825301384414695993155156

Number of terms: 512

Offset: 0

Sequence: 1, -4, -2, 24, -11, -44, 22, 8, 50, 44, -96, -56, -121, 152, 198, -160,  
176, -48, -162, -88, -198, 52, 22, 528, 233, -200, -242, 88, -176,  
, -668, 550, -264, -44, 188, 224, 728, 154, 484, -1056, -656, -311, 236, -100, -  
792, 714, 528, 640, -88, -478, 484, 1566, -968, 192, -780, -1994, 648,  
-942

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Sequence: A030212

Name: Glaisher's  $\chi_4(n)$ .

$$\frac{\pi^{5/2}}{64 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\pi}}$$

Printed:  $1/64*\text{Pi}^{(5/2)}/\text{GAMMA}(3/4)^{10}/\text{exp}(-\text{Pi})$   
 Value: .828386679436237538075433  
 Number of terms: 512  
 Offset: 1

Sequence: 1, -4, 0, 16, -14, 0, 0, -64, 81, 56, 0, 0, -238, 0, 0, 256, 322, -324,  
 0, -224, 0, 0, 0, 0, -429, 952, 0, 0, 82, 0, 0, -1024, 0, -1288,  
 0, 1296, 2162, 0, 0, 896, -3038, 0, 0, 0, -1134, 0, 0, 0, 2401, 1716, 0, -3808,  
 2482, 0, 0, 0, 0, -328, 0, 0, -6958, 0, 0, 4096, 3332, 0, 0, 5152, 0,  
 0

Sequence: A033683  
 Name:  $a(n) = 1$  if  $n$  is an odd square not divisible by 3, otherwise 0.

$$\frac{1}{e^{2\pi}}$$

Printed:  $1/\text{exp}(2*\text{Pi})$   
 Value: .186744273170798881443022e-2  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, 0, 1,  
 0,  
 0, 0, 0, 1, 0,  
 0,  
 0, 0

Sequence: A033759  
 Name: Expansion of  $\text{Product}_{\{d \mid 47\}} \text{theta}_3(q^d)$ .

$$\frac{\pi^{1/4}}{\Gamma\left(\frac{3}{4}\right)}$$

Printed:  $\text{Pi}^{(1/4)}/\text{GAMMA}(3/4)$   
 Value: 1.08643481121330801457531  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 0, 0, 2, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 2,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 2, 4, 2, 0, 4, 0, 0, 0, 0, 4, 0, 0, 0, 0, 0, 4, 2, 0, 0, 0, 0, 0, 4, 0, 0, 0,  
 0, 0, 0, 0, 0

Sequence: A033761  
 Name:  $\text{Product } t_2(q^d); d \mid 2$ , where  $t_2 = \text{theta}_2(q)/(2*q^{(1/4)})$ .

$$\frac{2^{1/8} \sqrt{\pi}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{3\pi}{8}}}$$

Printed: 1/4\*2^(1/8)\*Pi^(1/2)/GAMMA(3/4)^2/exp(-3/8\*Pi)

Value: 1.04524292405130945001413

Number of terms: 512

Offset: 0

Sequence: 1, 1, 1, 2, 0, 1, 2, 1, 1, 1, 1, 0, 3, 1, 0, 2, 1, 1, 1, 0, 1, 3, 1, 2, 0, 0,  
 1, 2, 1, 0, 3, 1, 0, 2, 1, 1, 2, 0, 1, 0, 2, 1, 2, 1, 0, 3,  
 0, 1, 3, 0, 0, 2, 1, 0, 0, 1, 2, 4, 1, 1, 0, 1, 1, 1, 0, 1, 3, 1, 1, 0, 1, 1, 2, 1, 0, 3,  
 0, 1, 4, 0, 1, 0, 1, 0, 2, 1, 1, 2, 0, 0, 2, 2, 1, 3, 0, 0,  
 2, 2, 1, 0, 2, 1, 0, 1, 0

Sequence: A033782

Name: Product t2(q^d); d | 23, where t2 = theta2(q)/(2\*q^(1/4)).

$$\frac{2^{3/4} \pi^{1/4}}{4 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/4)/GAMMA(3/4)/exp(-1/4\*Pi)

Value: 1.00186744924412016730583

Number of terms: 512

Offset: 0

Sequence: 1, 1, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 1, 1, 0,  
 1, 0, 1, 1, 0, 0, 0, 1, 0, 0, 1, 0, 1, 0, 0, 0, 0, 0, 1, 1,  
 0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 1, 1, 1, 0, 1, 0, 0, 1,  
 0, 0, 2, 1, 0, 0, 0, 0, 1, 0, 0, 0

Sequence: A033788

Name: Product t2(q^d); d | 29, where t2 = theta2(q)/(2\*q^(1/4)).

$$\frac{2^{3/4} \pi^{1/4}}{4 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/4)/GAMMA(3/4)/exp(-1/4\*Pi)

Value: 1.00186744924412016730583

Number of terms: 512

Offset: 0

Sequence: 1, 1, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0,

0, 0, 1, 1, 1, 0, 1, 0, 0, 1, 1, 0, 0, 1, 0, 0, 0, 0, 1, 1,  
 0, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 1, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 1, 0,  
 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 1

---

Sequence: A033790

Name: Product t2(q^d); d | 31, where t2 = theta2(q)/(2\*q^(1/4)).

$$\frac{2^{3/4} \pi^{1/4}}{4 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/4)/GAMMA(3/4)/exp(-1/4\*Pi)

Value: 1.00186744924412016730583

Number of terms: 512

Offset: 0

Sequence: 1, 1, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0,  
 0, 0, 1, 0, 0, 1, 1, 0, 1, 0, 1, 1, 0, 0, 0, 1, 0, 0, 0, 1,  
 1, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0,  
 1, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0

---

Sequence: A033796

Name: Product t2(q^d); d | 37, where t2 = theta2(q)/(2\*q^(1/4)).

$$\frac{2^{3/4} \pi^{1/4}}{4 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/4)/GAMMA(3/4)/exp(-1/4\*Pi)

Value: 1.00186744924412016730583

Number of terms: 512

Offset: 0

Sequence: 1, 1, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0,  
 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 0, 1, 0, 0, 1, 0, 1,  
 0, 1, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0,  
 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0

---

Sequence: A033800

Name: Product t2(q^d); d | 41, where t2 = theta2(q)/(2\*q^(1/4)).





Value: .485254297422903107487468  
Number of terms: 512  
Offset: 0

Sequence: 1, -16, 112, -448, 1136, -2016, 3136, -5504, 9328, -12112, 14112, -  
21312, 31808, -35168, 38528, -56448, 74864, -78624, 84784, -109760,  
143136, -154112, 149184, -194688, 261184, -252016, 246176, -327040,  
390784, -390240, 395136, -476672, 599152, -596736

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Sequence: A035036  
Name: Fourier coefficients of  $E_{\{gamma,2\}}*E_{\{0,4\}}$ .

$$\frac{3 \pi^3}{8 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed: 3/8\*Pi^3/GAMMA(3/4)^12  
Value: 1.01408729109967623975066  
Number of terms: 512  
Offset: 0

Sequence: 1, 8, -248, 1952, -8440, 25008, -60512, 134464, -270584, 474344, -  
775248, 1288416, -2059360, 2970352, -4168384, 6101952, -8659192,  
11358864, -14704664, 19808800, -26383440, 32809216, -39940896,  
51490752, -66022496, 78150008, -92080912, 115265600, -141859520

---

Sequence: A035099  
Name: McKay-Thompson series of class 2B for the Monster group with  $a(0) = 40$ .

$$\frac{72}{e^\pi}$$

Printed: 72/exp(Pi)  
Value: 3.11140211499160198375809  
Number of terms: 512  
Offset: -1

Sequence: 1, 40, 276, -2048, 11202, -49152, 184024, -614400, 1881471, -  
5373952, 14478180, -37122048, 91231550, -216072192, 495248952, -  
1102430208,  
2390434947, -5061476352, 10487167336, -21301241856, 42481784514, -  
83300614144

---

Sequence: A035150  
Name: Fourier coefficients of (normalized Delta)^4.

$$\frac{\pi^{24}}{68719476736 \Gamma\left(\frac{3}{4}\right)^{96} e^{-4\pi}}$$

Printed: 1/68719476736\*Pi^24/GAMMA(3/4)^96/exp(-4\*Pi)

Value: .119337833648356687941561e-1

Number of terms: 512

Offset: 4

Sequence: 1, -96, 4464, -133760, 2897880, -48264768, 641207744, -  
6954435840, 62452035180, -467536231520, 2916146241888, -  
14993052561792,  
61695767581248, -187599812159040, 302907998183040, 676931170946304,  
-7255673126427378, 28908305661771648

-----

Sequence: A035190

Name: Fourier coefficients of (normalized Delta)^5.

$$\frac{\pi^{30}}{35184372088832 \Gamma\left(\frac{3}{4}\right)^{120} e^{-5\pi}}$$

Printed: 1/35184372088832\*Pi^30/GAMMA(3/4)^120/exp(-5\*Pi)

Value: .394432495449674738537599e-2

Number of terms: 512

Offset: 5

Sequence: 1, -120, 7020, -266560, 7379190, -158562144, 2748847640, -  
39443189760, 476711357265, -4910778324400, 43440479153652, -  
331129448133120,  
2173189785854230, -12199334429782080, 57636170473930920, -  
220943909849546752, 623388743422483500

-----

Sequence: A035293

Name: Fourier coefficients of T\_6.

$$\frac{2304 \Gamma\left(\frac{3}{4}\right)^8}{\pi^2 e^{2\pi}}$$

Printed: 2304/Pi^2\*GAMMA(3/4)^8/exp(2\*Pi)

Value: 2.21666664092696606538240

Number of terms: 512

Offset: -1

Sequence: 1, 504, 73764, 2695040, 54755730, 778640256, 8638286840,

79534711296, 632179869615, 4456706505600, 28415446027380,  
166276832866560,  
903193785328974, 4595374951395840, 22061107725128280,  
100534965940777984

---

Sequence: A035315

Name: Fourier coefficients of  $T_{-}\{10\}$ .

$$\frac{3072 \Gamma\left(\frac{3}{4}\right)^{16}}{\pi^4 e^{2\pi}}$$

Printed:  $3072/\pi^4 * \text{GAMMA}(3/4)^{16} / \exp(2 * \pi)$

Value: 1.52268384686769905697399

Number of terms: 512

Offset: -1

Sequence: 1, 264, 8244, 139520, 1672290, 15872256, 126745880, 884100096,  
5525046495, 31498809600, 166049246340, 817866616320, 3794952949854,  
16699329285120, 70071039813240, 281650911606784, 1088671630120515,  
4060062852952320

---

Sequence: A035363

Name: Number of partitions of n into even parts.

$$\frac{\sqrt{2} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{12}}}$$

Printed:  $2^{(1/2)}/\pi^{(1/4)} * \text{GAMMA}(3/4) / \exp(1/12 * \pi)$

Value: 1.00187443701462404338486

Number of terms: 512

Offset: 0

Sequence: 1, 0, 1, 0, 2, 0, 3, 0, 5, 0, 7, 0, 11, 0, 15, 0, 22, 0, 30, 0, 42, 0, 56,  
0, 77, 0, 101, 0, 135, 0, 176, 0, 231, 0, 297, 0, 385, 0, 490,  
0, 627, 0, 792, 0, 1002, 0, 1255, 0, 1575, 0, 1958, 0, 2436, 0, 3010, 0, 3718, 0,  
4565, 0, 5604, 0, 6842, 0, 8349, 0, 10143, 0, 12310, 0

---

Sequence: A035444

Name: Number of partitions of n into parts 4k.

$$\frac{2^{7/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{6}}}$$

Printed:  $2^{(7/8)}/\pi^{(1/4)}*\text{GAMMA}(3/4)/\exp(1/6*\pi)$   
 Value: 1.00000348736667944964958  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 0, 0, 0, 1, 0, 0, 0, 2, 0, 0, 0, 3, 0, 0, 0, 5, 0, 0, 0, 7, 0, 0, 0, 11, 0,  
 0, 0, 15, 0, 0, 0, 22, 0, 0, 0, 30, 0, 0, 0, 42, 0, 0, 0,  
 56, 0, 0, 0, 77, 0, 0, 0, 101, 0, 0, 0, 135, 0, 0, 0, 176, 0, 0, 0, 231, 0, 0, 0, 297,  
 0, 0, 0, 385, 0, 0, 0, 490, 0, 0, 0, 627, 0, 0, 0, 792, 0, 0, 0,  
 , 1002, 0

Sequence: A035457  
 Name: Number of partitions of n into parts of the form 4\*k + 2.

$$\frac{2^{5/8}}{2 e^{-\frac{\pi}{12}}}$$

Printed:  $1/2/\exp(-1/12*\pi)*2^{(5/8)}$   
 Value: 1.00187094312327988646353  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 0, 1, 0, 1, 0, 2, 0, 2, 0, 3, 0, 4, 0, 5, 0, 6, 0, 8, 0, 10, 0, 12, 0, 15,  
 0, 18, 0, 22, 0, 27, 0, 32, 0, 38, 0, 46, 0, 54, 0, 64, 0,  
 76, 0, 89, 0, 104, 0, 122, 0, 142, 0, 165, 0, 192, 0, 222, 0, 256, 0, 296, 0, 340,  
 0, 390, 0, 448, 0, 512, 0, 585, 0, 668, 0, 760, 0, 864, 0, 982, 0

Sequence: A037945  
 Name: Coefficients of unique normalized cusp form Delta\_20 of weight 20 for full modular group.

$$\frac{9 \pi^{10}}{65536 \Gamma\left(\frac{3}{4}\right)^{40} e^{-2 \pi}}$$

Printed:  $9/65536*\pi^{10}/\text{GAMMA}(3/4)^{40}/\exp(-2*\pi)$   
 Value: 2.02610614689057921332837  
 Number of terms: 512  
 Offset: 1

Sequence: 1, 456, 50652, -316352, -2377410, 23097312, -16917544, -

383331840, 1403363637, -1084098960, -16212108, -16023861504,  
 50421615062, -\  
 7714400064, -120420571320, -8939761664, 225070099506, 639933818472  
 -----

Sequence: A045479

Name: McKay-Thompson series of class 2B for the Monster group with a(0) = -8.

$$\frac{24}{e^\pi}$$

Printed: 24/exp(Pi)  
 Value: 1.03713403833053399458603  
 Number of terms: 512  
 Offset: -1

Sequence: 1, -8, 276, -2048, 11202, -49152, 184024, -614400, 1881471, -  
 5373952, 14478180, -37122048, 91231550, -216072192, 495248952, -  
 1102430208,  
 2390434947, -5061476352, 10487167336, -21301241856, 42481784514, -  
 83300614144  
 -----

Sequence: A045820

Name: Theta series of D8 lattice with respect to midpoint of edge.

$$\frac{\pi^2 \sqrt{2}}{4 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{2}}}$$

Printed: 1/4\*Pi^2/GAMMA(3/4)^8/exp(-1/2\*Pi)\*2^(1/2)  
 Value: 3.30120553765878397262062  
 Number of terms: 512  
 Offset: 0

Sequence: 2, 24, 124, 368, 746, 1288, 2220, 3536, 4964, 6904, 9536, 12112,  
 15630, 20592, 24588, 29632, 37472, 43296, 50492, 61456, 68724, 79560,  
 95404, 104352, 118226, 137392, 148636, 167920, 191904, 204712  
 -----

Sequence: A045823

Name: a(n) = sigma\_3(2\*n+1).

$$\frac{3 \pi^2 \sqrt{2}}{16 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{2}}}$$

Printed: 3/16\*Pi^2/GAMMA(3/4)^8/exp(-1/2\*Pi)\*2^(1/2)

Value: 2.47590415324408797946547  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 28, 126, 344, 757, 1332, 2198, 3528, 4914, 6860, 9632, 12168,  
 15751, 20440, 24390, 29792, 37296, 43344, 50654, 61544, 68922, 79508,  
 95382, 103824, 117993, 137592, 148878, 167832, 192080, 205380, 226982,  
 260408, 276948, 300764, 340704, 357912

---

Sequence: A045828  
 Name: One fourth of theta series of cubic lattice with respect to face.

$$\frac{\pi^{3/4} \sqrt{2}}{8 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{2}}}$$

Printed: 1/8\*Pi^(3/4)/GAMMA(3/4)^3/exp(-1/2\*Pi)\*2^(1/2)  
 Value: 1.09049632374384019949040  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 2, 4, 3, 2, 6, 4, 4, 6, 4, 4, 7, 8, 2, 8, 8, 4, 10, 4, 4, 10, 10, 8, 9,  
 4, 6, 12, 8, 6, 10, 12, 4, 14, 8, 4, 16, 10, 8, 8, 9, 10,  
 12, 12, 8, 12, 12, 4, 20, 10, 6, 20, 8, 6, 10, 12, 8, 20, 18, 8, 11, 12, 12, 16, 8,  
 6, 20, 16, 12, 14, 8, 12, 20, 14, 6, 12, 20, 8, 26, 12, 8, 22, 8,  
 12, 15

---

Sequence: A045831  
 Name: Number of 4-core partitions of n.

$$\frac{2^{7/8} \pi^{3/4}}{16 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{5\pi}{8}}}$$

Printed: 1/16\*2^(7/8)\*Pi^(3/4)/GAMMA(3/4)^3/exp(-5/8\*Pi)  
 Value: 1.04719486215975102128990  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 2, 3, 1, 3, 3, 3, 4, 4, 2, 2, 7, 3, 5, 6, 2, 4, 7, 3, 4, 7, 5, 8, 5, 4,  
 4, 8, 5, 6, 7, 2, 9, 11, 3, 8, 9, 4, 6, 5, 7, 5, 14, 7, 4,  
 10, 5, 10, 11, 3, 9, 10, 5, 8, 10, 4, 6, 15, 8, 9, 10, 6, 8, 15, 6, 10, 6, 5, 15, 9, 6,  
 8, 14, 8, 6, 13, 5, 16, 18, 7, 8, 7, 9, 6, 15, 6, 12, 17, 5, 8,  
 , 15, 7, 12

---

Sequence: A045834

Name: Half of theta series of cubic lattice with respect to edge.

$$\frac{\pi^{3/4} 2^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/4 * \pi) * 2^{(3/4)}$

Value: 1.18254482517553318043626

Number of terms: 512

Offset: 0

Sequence: 1, 4, 5, 4, 8, 8, 5, 12, 8, 4, 16, 12, 9, 12, 8, 12, 16, 16, 8, 16, 17, 8,  
24, 8, 8, 28, 16, 12, 16, 20, 13, 24, 24, 8, 16, 16, 16, 28,  
24, 12, 32, 16, 13, 28, 8, 20, 32, 32, 8, 20, 24, 16, 40, 16, 16, 32, 25, 20, 24,  
24, 24, 28, 24, 8, 32, 36, 16, 44, 16, 12, 40, 32, 17, 36, 32

-----

Sequence: A050468

Name:  $\text{Sum}_{\{d|n, n/d=1 \pmod{4}\}} d^4 - \text{Sum}_{\{d|n, n/d=3 \pmod{4}\}} d^4$ .

$$\frac{9 \pi^{5/2}}{256 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\pi}}$$

Printed:  $9/256 * \pi^{(5/2)} / \text{GAMMA}(3/4)^{10} / \exp(-\pi)$

Value: 1.86387002873153446066972

Number of terms: 512

Offset: 1

Sequence: 1, 16, 80, 256, 626, 1280, 2400, 4096, 6481, 10016, 14640, 20480,  
28562, 38400, 50080, 65536, 83522, 103696, 130320, 160256, 192000,  
234240, 279840, 327680, 391251, 456992, 524960, 614400, 707282, 801280,  
923520, 1048576, 1171200

-----

Sequence: A050470

Name:  $a(n) = \text{Sum}_{\{d|n, n/d \equiv 1 \pmod{4}\}} d^2 - \text{Sum}_{\{d|n, n/d \equiv 3 \pmod{4}\}} d^2$ .

$$\frac{\pi^{3/2}}{32 \Gamma\left(\frac{3}{4}\right)^6 e^{-\pi}}$$

Printed:  $1/32 * \pi^{(3/2)} / \text{GAMMA}(3/4)^6 / \exp(-\pi)$

Value: 1.18918223209883033444104

Number of terms: 512

Offset: 1

Sequence: 1, 4, 8, 16, 26, 32, 48, 64, 73, 104, 120, 128, 170, 192, 208, 256, 290, 292, 360, 416, 384, 480, 528, 512, 651, 680, 656, 768, 842, 832, 960, 1024, 960, 1160, 1248, 1168, 1370, 1440, 1360, 1664, 1682, 1536, 1848, 1920, 1898, 2112, 2208, 2048, 2353, 2604

---

Sequence: A051136

Name: Number of 2-colored generalized Frobenius partitions.

$$\frac{2^{3/4} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{12}}}$$

Printed:  $2^{(3/4)}/\pi^{(1/4)}*\text{GAMMA}(3/4)/\exp(1/12*\pi)$

Value: 1.19143620883713643862901

Number of terms: 512

Offset: 0

Sequence: 1, 4, 9, 20, 42, 80, 147, 260, 445, 744, 1215, 1944, 3059, 4740, 7239, 10920, 16286, 24028, 35110, 50844, 73010, 104028, 147144, 206700, 288501, 400232, 552037, 757288, 1033495, 1403508, 1897088, 2552812, 3420527, 4564500, 6067265

---

Sequence: A052241

Name: McKay-Thompson series of class 8C for Monster.

$$\frac{3 \cdot 2^{3/4}}{e^{\frac{\pi}{4}}}$$

Printed:  $3/\exp(1/4*\pi)*2^{(3/4)}$

Value: 2.30038042329549796881942

Number of terms: 512

Offset: 0

Sequence: 1, 26, 79, 326, 755, 2106, 4460, 10284, 20165, 41640, 77352, 147902, 263019, 475516, 816065, 1413142, 2353446, 3936754, 6391091, 10390150, 16497734, 26184098, 40775677, 63394792, 97037170, 148178934, 223351867, 335704742, 499050461, 739575640, 1085723797

---

Sequence: A055978

Name: A sequence related to Ramanujan's tau function.



0,  
 0, 0, 8, 0, 0, 8, 0, 0, 0, 0, 0, 0, 12, 0, 8, 0, 12, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 8, 16, 8, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 24, 24, 0, 0, 0

---

Sequence: A079006  
 Name: Expansion of  $q^{-1/4} * (\eta(q) * \eta(q^4)^2 / \eta(q^2)^3)^2$  in powers of  $q$ .

$$\frac{2^{3/4}}{4 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4/\exp(-1/4*\pi)*2^{(3/4)}$   
 Value: .922160666156541173723988  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 5, -10, 18, -32, 55, -90, 144, -226, 346, -522, 777, -1138, 1648, -2362, 3348, -4704, 6554, -9056, 12425, -16932, 22922, -30848, 41282, -54946, 72768, -95914, 125842, -164402, 213901, -277204, 357904, -460448, 590330, -754368, 960948, -1220370

---

Sequence: A080054  
 Name: G.f.:  $\text{Product}_{\{n := 0\}} (1+x^{(2n+1)})/(1-x^{(2n+1)})$ .

$$2^{1/8}$$

Printed:  $2^{(1/8)}$   
 Value: 1.09050773266525765920701  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 2, 4, 6, 8, 12, 16, 22, 30, 40, 52, 68, 88, 112, 144, 182, 228, 286, 356, 440, 544, 668, 816, 996, 1210, 1464, 1768, 2128, 2552, 3056, 3648, 4342, 5160, 6116, 7232, 8538, 10056, 11820, 13872, 16248, 18996, 22176, 25844, 30068, 34936, 40528

---

Sequence: A080332  
 Name: G.f.:  $\text{Product}_{\{n:0\}} (1 - x^n)^3 * (1 - x^{(2*n - 1)})^2 = \text{Sum}_{\{n \text{ in } \mathbb{Z}\}} (6*n + 1) * x^{(n*(3*n + 1)/2)}$ .

$$\frac{\pi^{3/4} 2^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{24}}}$$

Printed:  $1/2 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/24 * \pi) * 2^{(1/8)}$   
 Value: .797000853742640017558395  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -5, 7, 0, 0, -11, 0, 13, 0, 0, 0, 0, -17, 0, 0, 19, 0, 0, 0, 0, 0, 0, -  
 23, 0, 0, 0, 25, 0, 0, 0, 0, 0, 0, 0, -29, 0, 0, 0, 0, 31, 0  
 , 0, 0, 0, 0, 0, 0, 0, 0, -35, 0, 0, 0, 0, 0, 37, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -  
 41, 0, 0, 0, 0, 0, 0, 43, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -  
 , 0, 0, -47, 0, 0, 0, 0, 0, 0

---

Sequence: A080965  
 Name: Expansion of  $\eta(q^2)^{12} / (\eta(q)^4 \eta(q^4)^5)$  in powers of q.

$$\frac{2^{7/8} \pi^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^3}$$

Printed:  $1/2 * 2^{(7/8)} * \pi^{(3/4)} / \text{GAMMA}(3/4)^3$   
 Value: 1.17593216209966085912674  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, 2, -8, -4, 8, -8, -16, 6, 12, 8, -8, -8, 24, 0, -16, 12, 16, 10, -24,  
 -8, 16, -24, -16, 8, 28, 8, -32, -16, 8, 0, -32, 6, 32, 16, -\  
 16, -12, 40, -24, -16, 24, 16, 16, -40, -8, 40, 0, -32, 24, 36, 10, -16, -24, 24, -  
 32, -48, 0, 32, 24, -24, -16, 40, 0, -48, 12, 16, 16

---

Sequence: A080966  
 Name: Expansion of  $\theta_4(q^2) * \theta_2(q)^2 / (4 * q^{(1/2)})$  in powers of q.

$$\frac{2^{5/8} \pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4 * 2^{(5/8)} * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/4 * \pi)$   
 Value: 1.08439838595672501710132  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, -1, -2, 0, -4, -1, 2, -4, 2, 4, 2, 1, -2, 4, 2, 4, 0, -4, 0, -3, 4, -4,  
 -4, 0, -2, 0, -6, 0, 2, -1, -4, 4, -4, -4, 8, 4, 6, 0, 2, -\  
 8, 0, 7, 2, 4, 2, 4, 0, 0, -6, 4, 0, -4, 0, 0, 0, 1, -6, -4, 4, -8, -2, -4, 4, 0, 2, -4, -  
 6, 0, -2, 4, -8, 1, 2, 0, 0, 4, 4, 4, -2, 4, 6, 0, -2, 0, -4  
 , -8, 10, 8, 8, -1, 4, 4, 2, -4, -4, -8, 6, 4, -6, 8, -6, 4, 4

---

Sequence: A081360

Name:

Expansion of  $q^{(-1/24)} (m (1-m) / 16)^{(1/24)}$  in powers of  $q$ , where  $m = k^2$  is the parameter and  $q$  is the nome for Jacobian elliptic functions.

$$\frac{2^{3/4}}{2 e^{-\frac{\pi}{24}}}$$

Printed:  $1/2/\exp(-1/24*\text{Pi})*2^{(3/4)}$

Value: .958498672723820136268705

Number of terms: 512

Offset: 0

Sequence: 1, -1, 1, -2, 2, -3, 4, -5, 6, -8, 10, -12, 15, -18, 22, -27, 32, -38, 46, -54, 64, -76, 89, -104, 122, -142, 165, -192, 222, -256, 296, -340, 390, -448, 512, -585, 668, -760, 864, -982, 1113, -1260, 1426, -1610, 1816, -2048, 2304, -2590, 2910, -3264, 3658, -4097, 4582, -5120, 5718, -6378

-----

Sequence: A081362

Name: Expansion of  $q^{(1/24)} * \text{eta}(q) / \text{eta}(q^2)$  in powers of  $q$ .

$$\frac{2^{1/8}}{e^{\frac{\pi}{24}}}$$

Printed:  $1/\exp(1/24*\text{Pi})*2^{(1/8)}$

Value: .956708725113587003449042

Number of terms: 512

Offset: 0

Sequence: 1, -1, 0, -1, 1, -1, 1, -1, 2, -2, 2, -2, 3, -3, 3, -4, 5, -5, 5, -6, 7, -8, 8, -9, 11, -12, 12, -14, 16, -17, 18, -20, 23, -25, 26, -29, 33, -35, 37, -41, 46, -49, 52, -57, 63, -68, 72, -78, 87, -93, 98, -107, 117, -125, 133, -144, 157, -168, 178, -192, 209, -223, 236, -255, 276, -294, 312, -335, 361, -385

-----

Sequence: A081864

Name: Sum of 5th powers of the divisors of odd numbers:  $a(n) = \text{sigma}_5(2n-1)$ .

$$\frac{3 \pi^3}{128 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\pi}}$$

Printed:  $3/128*\text{Pi}^3/\text{GAMMA}(3/4)^{12}/\exp(-\text{Pi})$

Value: 1.46666764413408524586508  
Number of terms: 512  
Offset: 1

Sequence: 1, 244, 3126, 16808, 59293, 161052, 371294, 762744, 1419858,  
2476100, 4101152, 6436344, 9768751, 14408200, 20511150, 28629152,  
39296688,  
52541808, 69343958, 90595736, 115856202, 147008444, 185349918,  
229345008, 282492057, 346445352

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Sequence: A082303  
Name: McKay-Thompson series of class 32e for the Monster group.

$$\frac{\sqrt{2}}{e^{\frac{\pi}{8}}}$$

Printed: 1/exp(1/8\*Pi)\*2^(1/2)  
Value: .954922120139643887143563  
Number of terms: 512  
Offset: 0

Sequence: 1, -1, -1, 0, 1, 0, -1, 1, 2, -1, -2, 1, 2, -1, -3, 1, 4, -2, -5, 2, 5, -2, -  
6, 3, 8, -4, -9, 4, 10, -4, -12, 6, 15, -7, -17, 7, 19, -8,  
-22, 10, 26, -12, -30, 13, 33, -14, -38, 17, 45, -21, -51, 22, 56, -24, -64, 29,  
74, -33, -83, 36, 92, -40, -104, 46, 119, -53, -133, 58

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Sequence: A082304  
Name: McKay-Thompson series of class 16d for the Monster group.

$$\frac{2}{e^{\frac{\pi}{4}}}$$

Printed: 2/exp(1/4\*Pi)  
Value: .911876255531992473531842  
Number of terms: 512  
Offset: 0

Sequence: 1, -2, -1, 2, 3, -2, -4, 4, 5, -8, -8, 10, 11, -12, -15, 18, 22, -26, -29,  
34, 38, -42, -51, 56, 66, -78, -85, 98, 109, -120, -139, 156,  
176, -202, -222, 250, 279, -306, -346, 384, 429, -482, -530, 590, 650, -714, -  
797, 876, 972, -1080, -1180, 1304, 1431, -1562, -1728, 1892, 2078, -2290  
, -2496

-----

Sequence: A082556  
Name: G.f.: Product\_{m:=1} 1/(1-x^m)^30.

$$\frac{2048 \Gamma\left(\frac{3}{4}\right)^{30} 2^{1/4}}{\pi^{15/2} e^{\frac{5\pi}{4}}}$$

Printed: 2048/Pi^(15/2)\*GAMMA(3/4)^30/exp(5/4\*Pi)\*2^(1/4)

Value: 3.99031176076929865980500

Number of terms: 512

Offset: 0

Sequence: 1, 30, 495, 5890, 56265, 456786, 3263990, 21017040, 124018290, 679118550, 3484681077, 16884109080, 77731521980, 341784289770, 1441489548195, 5852747363518, 22948550618400, 87131200662540, 321100847115950, 1150962640399770, 4020058004480100, 13704611801774340

Sequence: A082557

Name: G.f.: Product\_{m=1} 1/(1-x^m)^32.

$$\frac{4096 \Gamma\left(\frac{3}{4}\right)^{32}}{\pi^8 e^{\frac{4\pi}{3}}}$$

Printed: 4096/Pi^8\*GAMMA(3/4)^32/exp(4/3\*Pi)

Value: 4.37596611159745238628397

Number of terms: 512

Offset: 0

Sequence: 1, 32, 560, 7040, 70840, 604352, 4528832, 30529280, 188313180, 1076484640, 5759310304, 29064224896, 139226153920, 636391492800, 2787844780160, 11748015743232, 47774241056710, 187997792512640, 717605948122000, 2662641484567680, 9621587501598688, 33916687860860288

Sequence: A082558

Name: Expansion of Product\_{m=1} 1/(1-x^m)^48.

$$\frac{262144 \Gamma\left(\frac{3}{4}\right)^{48}}{\pi^{12} e^{2\pi}}$$

Printed: 262144/Pi^12\*GAMMA(3/4)^48/exp(2\*Pi)

Value: 9.15400035862951003013062

Number of terms: 512

Offset: 0

Sequence: 1, 48, 1224, 21952, 309876, 3657312, 37468928, 341773440,  
2826752418, 21491641808, 151810235136, 1004753937600, 6273891838360,  
37171410206112, 209969121051648, 1135389617917568,  
5897908848093087, 29521227582821520, 142760699405228800

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Sequence: A082559

Name: G.f.: Product\_{m:=1} 1/(1-x^m)^64.

$$\frac{16777216 \Gamma\left(\frac{3}{4}\right)^{64}}{\pi^{16} e^{\frac{8\pi}{3}}}$$

Printed: 16777216/Pi^16\*GAMMA(3/4)^64/exp(8/3\*Pi)

Value: 19.1490794098493271119854

Number of terms: 512

Offset: 0

Sequence: 1, 64, 2144, 49920, 905840, 13627264, 176638592, 2025205248,  
20930373880, 197788352320, 1728062919232, 14083242424576,  
107837287452608,  
780481475916160, 5366307146732800, 35202669371599360,  
221142159585764508, 1334633003840266624, 7760187771579170400

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Sequence: A082564

Name: Expansion of eta(q)^2 \* eta(q^2) / eta(q^4) in powers of q.

$$\frac{\sqrt{\pi} 2^{5/8}}{2 \Gamma\left(\frac{3}{4}\right)^2}$$

Printed: 1/2\*Pi^(1/2)\*2^(5/8)/GAMMA(3/4)^2

Value: .910167024735558532577205

Number of terms: 512

Offset: 0

Sequence: 1, -2, -2, 4, 2, 0, -4, 0, 2, -6, 0, 4, 4, 0, 0, 0, 2, -4, -6, 4, 0, 0, -4, 0,  
4, -2, 0, 8, 0, 0, 0, 0, 2, -8, -4, 0, 6, 0, -4, 0, 0, -4,  
0, 4, 4, 0, 0, 0, 4, -2, -2, 8, 0, 0, -8, 0, 0, -8, 0, 4, 0, 0, 0, 2, 0, -8, 4, 4, 0, 0,  
0, 6, -4, 0, 4, 4, 0, 0, 0, 0, -10, -4, 4, 0, 0, -4, 0, 4,  
-4, 0, 0, 0, 0, 0, 4, -4, -2, 12, 2, 0, -8, 0

---

Sequence: A083365

Name: Expansion of psi(x) / phi(x) in powers of x where phi(), psi() are









$$\frac{\sqrt{2} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{12}}}$$

Printed: 2^(1/2)/Pi^(1/4)\*GAMMA(3/4)/exp(1/12\*Pi)  
 Value: 1.00187443701462404338486  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 77, 101, 135, 176, 231, 297,  
 385, 490, 627, 792, 1002, 1255, 1575, 1957, 2435, 3008, 3715, 4560  
 , 5597, 6831, 8334, 10121, 12280, 14841, 17921, 21560, 25914, 31050,  
 37162, 44352, 52877, 62876, 74685, 88507

Sequence: A093160  
 Name: Expansion of q^(-1/2) \* (eta(q^4) / eta(q))^4 in powers of q.

$$\frac{1}{4 e^{-\frac{\pi}{2}}}$$

Printed: 1/4/exp(-1/2\*Pi)  
 Value: 1.20261934524133791386826  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, 14, 40, 101, 236, 518, 1080, 2162, 4180, 7840, 14328, 25591,  
 44776, 76918, 129952, 216240, 354864, 574958, 920600, 1457946, 2285452  
 , 3548550, 5460592, 8332425, 12614088, 18953310, 28276968, 41904208,  
 61702876, 90304598

Sequence: A096562  
 Name: Coefficients of replicable function number \25a\ with a(0) = -1.

$$\frac{\pi^{1/4} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{12}}}$$

Printed: 1/2\*Pi^(1/4)/GAMMA(3/4)/exp(-1/12\*Pi)\*2^(1/2)  
 Value: .998129069925958513279955  
 Number of terms: 512  
 Offset: -1

Sequence: 1, -1, -1, 0, 0, 1, 0, 1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 0, 0, 0, 1, 0, 0,  
 1, 0, -1, 0, 0, 1, 0, 1, 0, 0, -1, 0, -1, 0, 0, -2, 0, 0,

0, 0, 0, 0, 1, 0, 0, 2, 0, -2, 0, 0, 2, 0, 3, 0, 0, -1, 0, -2, 0, 0, -3, 0, 0, 0, 0, -1, 0,  
 2, 0, 0, 3, 0, -4, 0, 0, 3, 0, 4, 0, 0, -2, 0, -3, 0, 0, -\n  
 5, 0, 1, 0, 0, -1, 0, 3, 0, 0, 6, 0, -6, 0, 0

---

Sequence: A096727

Name: Expansion of  $\eta(q)^8 / \eta(q^2)^4$  in powers of  $q$ .

$$\frac{\pi}{2 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed:  $1/2 * \text{Pi} / \text{GAMMA}(3/4)^4$

Value: .696601964842838429592120

Number of terms: 512

Offset: 0

Sequence: 1, -8, 24, -32, 24, -48, 96, -64, 24, -104, 144, -96, 96, -112, 192, -  
 192, 24, -144, 312, -160, 144, -256, 288, -192, 96, -248, 336, -320  
 , 192, -240, 576, -256, 24, -384, 432, -384, 312, -304, 480, -448, 144, -336,  
 768, -352, 288, -624, 576, -384, 96, -456, 744, -576, 336, -432, 960, -\n  
 576, 192

---

Sequence: A096920

Name: Expansion of  $q^{(-1/12)} * \eta(q^2)^4 / (\eta(q)^2 * \eta(q^4))$  in powers of  $q$ .

$$\frac{\pi^{1/4} 2^{5/8}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{12}}}$$

Printed:  $1/2 * \text{Pi}^{(1/4)} / \text{GAMMA}(3/4) / \exp(-1/12 * \text{Pi}) * 2^{(5/8)}$

Value: 1.08846746895223943488843

Number of terms: 512

Offset: 0

Sequence: 1, 2, 1, 2, 3, 2, 4, 4, 4, 6, 7, 8, 8, 10, 11, 14, 16, 16, 20, 22, 24, 28,  
 32, 34, 39, 44, 48, 54, 60, 66, 73, 82, 88, 98, 108, 118, 132,  
 144, 156, 172, 188, 204, 224, 244, 265, 290, 316, 340, 372, 404, 436, 474,  
 513, 554, 600, 650, 700, 756, 816, 878, 948, 1022, 1096, 1182

---

Sequence: A096960

Name:  $a(n) = \text{Sum}_{\{0 < d | n, n/d \text{ odd}\}} d^5$ .

$$\frac{3 \pi^3}{64 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\pi}}$$

Printed: 3/64\*Pi^3/GAMMA(3/4)^12/exp(-Pi)

Value: 2.93333528826817049173015

Number of terms: 512

Offset: 1

Sequence: 1, 32, 244, 1024, 3126, 7808, 16808, 32768, 59293, 100032,  
161052, 249856, 371294, 537856, 762744, 1048576, 1419858, 1897376,  
2476100,  
3201024, 4101152, 5153664, 6436344, 7995392, 9768751, 11881408,  
14408200, 17211392, 20511150

Sequence: A096961

Name:  $a(n) = \text{Sum}_{\{0 < d | n, n/d \text{ odd}\}} d^7$ .

$$\frac{9 \pi^4}{64 \Gamma\left(\frac{3}{4}\right)^{16} e^{-\pi}}$$

Printed: 9/64\*Pi^4/GAMMA(3/4)^16/exp(-Pi)

Value: 12.2602027521026485863429

Number of terms: 512

Offset: 1

Sequence: 1, 128, 2188, 16384, 78126, 280064, 823544, 2097152, 4785157,  
10000128, 19487172, 35848192, 62748518, 105413632, 170939688,  
268435456,  
410338674, 612500096, 893871740, 1280016384, 1801914272, 2494358016,  
3404825448

Sequence: A097243

Name: Expansion of  $1 + 32 * (\eta(q^4) / \eta(q))^8$  in powers of  $q$ .

3

Printed: 3

Value: 3.

Number of terms: 512

Offset: 0

Sequence: 1, 32, 256, 1408, 6144, 22976, 76800, 235264, 671744, 1809568,  
4640256, 11404416, 27009024, 61905088, 137803776, 298806528,  
632684544,  
1310891584, 2662655232, 5310231424, 10412576768, 20098970624,  
38231811072, 71734039808, 132875747328, 243175399136

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Sequence: A097340

Name: McKay-Thompson series of class 4A for the Monster group with  $a(0) = 24$ .

$$\frac{64}{e^\pi}$$

Printed: 64/exp(Pi)

Value: 2.76569076888142398556275

Number of terms: 512

Offset: -1

Sequence: 1, 24, 276, 2048, 11202, 49152, 184024, 614400, 1881471,  
5373952, 14478180, 37122048, 91231550, 216072192, 495248952,  
1102430208,  
2390434947, 5061476352, 10487167336, 21301241856, 42481784514,  
83300614144  
-----

Sequence: A097723

Name: One fourth of sum of divisors of  $4n+3$ .

$$\frac{\pi 2^{1/4}}{16 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{3\pi}{4}}}$$

Printed: 1/16\*Pi/GAMMA(3/4)^4/exp(-3/4\*Pi)\*2^(1/4)

Value: 1.09253277027933145512585

Number of terms: 512

Offset: 0

Sequence: 1, 2, 3, 6, 5, 6, 10, 8, 12, 14, 11, 12, 18, 18, 15, 26, 17, 18, 31, 20,  
21, 30, 28, 30, 39, 26, 27, 38, 36, 36, 42, 32, 33, 60, 35, 42,  
57, 38, 48, 54, 41, 42, 65, 62, 45, 62, 54, 48, 84, 50, 60, 78, 53, 66, 74, 56,  
57, 96, 72, 60, 91, 70, 63, 108, 76, 66, 90, 68, 93, 104, 71, 84, 98  
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Sequence: A098613

Name: Expansion of  $\psi(x^2) / f(-x)$  in powers of  $x$  where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{2^{1/8}}{2 e^{-\frac{5\pi}{24}}}$$

Printed: 1/2/exp(-5/24\*Pi)\*2^(1/8)

Value: 1.04916508057931509258174

Number of terms: 512

Offset: 0

Sequence: 1, 1, 3, 4, 7, 10, 17, 23, 35, 48, 69, 93, 131, 173, 236, 310, 413, 536, 704, 903, 1170, 1489, 1904, 2403, 3044, 3811, 4784, 5951, 7409, 9157, 11325, 13912, 17095, 20891, 25519, 31029, 37708, 45632, 55184, 66495, 80050, 96064, 115173, 137680, 164425, 195860

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Sequence: A099059

Name: The odd bisection of A000594.

$$\frac{9 \pi^6}{1024 \Gamma\left(\frac{3}{4}\right)^{24} e^{-\pi}}$$

Printed: 9/1024\*Pi^6/GAMMA(3/4)^24/exp(-Pi)

Value: 1.48732901818347846347363

Number of terms: 512

Offset: 0

Sequence: 1, 252, 4830, -16744, -113643, 534612, -577738, 1217160, -6905934, 10661420, -4219488, 18643272, -25499225, -73279080, 128406630, -52843168, 134722224, -80873520, -182213314, -145589976, 308120442, -17125708, -548895690, 2687348496, -1696965207, -1740295368, -1596055698

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Sequence: A100130

Name: Expansion of  $(\eta(q) * \eta(q^4) / \eta(q^2)^2)^{24}$  in powers of  $q$ .

$$\frac{1}{64 e^{-\pi}}$$

Printed: 1/64/exp(-Pi)

Value: .361573322387176078214516

Number of terms: 512

Offset: 1

Sequence: 1, -24, 300, -2624, 18126, -105504, 538296, -2471424, 10400997, -40674128, 149343012, -519045888, 1718732998, -5451292992, 16633756008, -49010118656, 139877936370, -387749049720, 1046413709980, -2754808758144, 7087483527072

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Sequence: A101127

Name: McKay-Thompson series of class 12D for the Monster group.

$$\frac{4}{e^{\frac{\pi}{3}}}$$

Printed: 4/exp(1/3\*Pi)  
 Value: 1.40367922871364387026296  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 8, 28, 64, 134, 288, 568, 1024, 1809, 3152, 5316, 8704, 13990, 22208, 34696, 53248, 80724, 121240, 180068, 264448, 384940, 556064, 796760, 1132544, 1598789, 2243056, 3127360, 4333568, 5971922, 8188096, 11170160, 15163392, 20491033

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Sequence: A101277  
 Name: Number of partitions of 2n in which all odd parts occur with multiplicity 2. There is no restriction on the even parts.

$$\frac{2^{5/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{12}}}$$

Printed: 2^(5/8)/Pi^(1/4)\*GAMMA(3/4)/exp(1/12\*Pi)  
 Value: 1.09255182072409915917198  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 3, 6, 10, 16, 25, 38, 57, 84, 121, 172, 243, 338, 465, 636, 862, 1158, 1546, 2050, 2702, 3542, 4616, 5986, 7729, 9932, 12707, 16196, 20563, 26010, 32788, 41194, 51591, 64418, 80195, 99558, 123269, 152226, 187514, 230434, 282519, 345596, 421844, 513834

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Sequence: A104794  
 Name: Expansion of theta\_4(q)^2 in powers of q.

$$\frac{\sqrt{\pi} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right)^2}$$

Printed: 1/2\*Pi^(1/2)\*2^(1/2)/GAMMA(3/4)^2  
 Value: .834626841674073186281425  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -4, 4, 0, 4, -8, 0, 0, 4, -4, 8, 0, 0, -8, 0, 0, 4, -8, 4, 0, 8, 0, 0, 0, 0, -12, 8, 0, 0, -8, 0, 0, 4, 0, 8, 0, 4, -8, 0, 0, 8, -8, 0

, 0, 0, -8, 0, 0, 0, -4, 12, 0, 8, -8, 0, 0, 0, 0, 8, 0, 0, -8, 0, 0, 4, -16, 0, 0, 8, 0, 0, 0, 4, -8, 8, 0, 0, 0, 0, 0, 8

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Sequence: A105094

Name: Expansion of  $8 * (\eta(q^2) / \eta(q)^2)^8$  in powers of  $q$ .

$$\frac{32 \Gamma\left(\frac{3}{4}\right)^8}{\pi^2}$$

Printed:  $32/\pi^2 * \text{GAMMA}(3/4)^8$

Value: 16.4862012402291705308554

Number of terms: 512

Offset: 0

Sequence: 8, 128, 1152, 7680, 42112, 200448, 855552, 3345408, 12166272, 41609856, 134973184, 418023936, 1242729984, 3561814784, 9877810176, 26587137024, 69636039808, 177877244160, 443991342720, 1084762764800, 2598075516672

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Sequence: A105095

Name: Expansion of  $8 * \eta(2\tau)^8 / \eta(\tau)^{16} + \eta(\tau/2)^8 / \eta(\tau)^{16}$ .

$$\frac{24 \Gamma\left(\frac{3}{4}\right)^8 \sqrt{2}}{\pi^2 e^{\frac{\pi}{2}}}$$

Printed:  $24/\pi^2 * \text{GAMMA}(3/4)^8 / \exp(1/2 * \pi) * 2^{(1/2)}$

Value: 3.63503570532309353067386

Number of terms: 202

Offset: 0

Sequence: 1, 36, 402, 3064, 18351, 93300, 419150, 1708632, 6432867, 22659976, 75404754, 238825344, 724242492, 2113022844, 5954784540, 16263489048, 43168780485, 111630095424, 281807843656, 695783026296, 1682813702136, 3992563842088

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Sequence: A105097

Name: Expansion of  $\Delta(\tau) / E_4(\tau)^2$ .

$$\frac{\pi^2}{2304 \Gamma\left(\frac{3}{4}\right)^8 e^{-2\pi}}$$

Printed: 1/2304\*Pi^2/GAMMA(3/4)^8/exp(-2\*Pi)

Value: .451127824787321117113208

Number of terms: 424

Offset: 1

Sequence: 1, -504, 180252, -56364992, 16415391870, -4574618335008, 1237162549543256, -327377686829760000, 85212608926827807477, -\ 21894492009015306942480, 5567179862617316105012532, - 1403483985988949037403977984

Sequence: A106205

Name: Expansion of (q\*j(q))^(1/24) where j(q) is the elliptic modular invariant (A000521).

$$\frac{2^{1/4} 3^{1/8}}{e^{12\pi}}$$

Printed: 1/exp(1/12\*Pi)\*2^(1/4)\*3^(1/8)

Value: 1.05002496851452968856025

Number of terms: 426

Offset: 0

Sequence: 1, 31, -2848, 413823, -68767135, 12310047967, -2309368876639, 447436508910495, -88755684988520798, 17924937024841839390, -\ 3671642907594608226078, 760722183234128461061246, - 159105706560247952472114973

Sequence: A106459

Name: Expansion of f(-x, -x^3) in powers of x where f(,) is Ramanujan's general theta function.

$$\frac{\pi^{1/4} 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\pi/8}}$$

Printed: 1/2\*Pi^(1/4)/GAMMA(3/4)/exp(-1/8\*Pi)\*2^(1/4)

Value: .956705388731092292713500

Number of terms: 512

Offset: 0

Sequence: 1, -1, 0, -1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, -1, 0, 0, 0,

0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0  
 , -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0,  
 , 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

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Sequence: A106507  
 Name: G.f.: Product\_{k:0} (1-x^(2k-1))/(1-x^(2k)).

$$\frac{2^{5/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{8}}}$$

Printed: 2^(5/8)/Pi^(1/4)\*GAMMA(3/4)/exp(1/8\*Pi)  
 Value: .958502015360153690033758  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -1, 1, -2, 3, -4, 5, -7, 10, -13, 16, -21, 28, -35, 43, -55, 70, -86,  
 105, -130, 161, -196, 236, -287, 350, -420, 501, -602, 722, -858  
 , 1016, -1206, 1431, -1687, 1981, -2331, 2741, -3206, 3740, -4368, 5096, -  
 5922, 6868, -7967, 9233, -10670, 12306, -14193

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Sequence: A106508  
 Name: Expansion of psi(x)^4 \* chi(-x^2)^2 in powers of x where psi(), chi() are Ramanujan theta functions.

$$\frac{2^{1/4} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{3}}}$$

Printed: 1/4\*2^(1/4)\*Pi/GAMMA(3/4)^4/exp(-1/3\*Pi)  
 Value: 1.18033236649821014317389  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, 4, 0, 2, 0, -8, 0, -5, -16, 4, 0, -10, 0, -8, 0, 9, 8, 0, 0, 14, 0, 16,  
 0, -10, 32, 4, 0, 0, 0, 8, 0, 14, -20, -20, 0, 2, 0, 0, 0,  
 -11, -16, -20, 0, -32, 0, 16, 0, 0, -40, 4, 0, 14, 0, -8, 0, -9, 32, -20, 0, 26, 0, 0,  
 0, 2, 36, 28, 0, 0, 0, 16, 0, 16, 0, 28, 0, -22, 0, 0, 0, 14,  
 56, -16, 0, 0, 0, -40, 0, 0

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Sequence: A107033  
 Name: Expansion of f(x, x) \* f(x, -x^2) in powers of x where f(,) is a Ramanujan theta function.

$$\frac{\sqrt{\pi} 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{24}}}$$

Printed: 1/2\*Pi^(1/2)/GAMMA(3/4)^2/exp(-1/24\*Pi)\*2^(3/4)

Value: 1.13135489751896703251198

Number of terms: 106

Offset: 0

Sequence: 1, 3, 1, -2, 2, 1, -4, -1, -2, 0, 2, -4, -1, -2, -2, 1, 0, 2, -2, 2, 0, -4, 1,  
 0, 2, 2, 5, 0, -2, 0, 0, 4, -2, 0, 0, 3, 4, 0, 0, 2, 1, -4  
 , 2, -2, 0, 0, 0, 2, -2, 0, 2, 3, -2, 0, -2, -2, -4, -1, 0, 0, 0, -4, 2, 0, 4, 0, -4, -2,  
 0, -2, -1, 0, 0, -2, -2, 2, -6, 1, 2, 0, 0, 4, 0, -2, 2, 0,  
 0, -2, -2, -2, 2, 0, 1, 0, 0, -2, 4, 0, 0, 2, 1, 6, 0, 2, 0

Sequence: A107034

Name: Expansion of f(-x) \* f(-x^4) in powers of x where f() is a Ramanujan theta function.

$$\frac{2^{3/4} \sqrt{\pi}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{5\pi}{24}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/2)/GAMMA(3/4)^2/exp(-5/24\*Pi)

Value: .954915459847317740875572

Number of terms: 80

Offset: 0

Sequence: 1, -1, -1, 0, -1, 2, 1, 1, -1, 0, 1, -1, -1, -1, 0, -2, 1, 0, 0, 1, 2, -1, 0,  
 1, 0, 1, 0, 1, 1, -1, -3, 0, -1, 1, -1, -1, 0, 0, 0, 1, -2,  
 0, 1, 0, 1, 0, 1, 0, 0, 1, 2, 1, 0, -1, 1, -3, 0, 1, 0, -1, -1, 0, 1, 0, 0, -2, 0, -1, -1,  
 0, -2, 1, 1, 0, 0, 1, 0, 0, 1

Sequence: A107635

Name: McKay-Thompson series of class 32a for the Monster group.

$$\frac{2^{3/4}}{e^{\frac{\pi}{8}}}$$

Printed: 1/exp(1/8\*Pi)\*2^(3/4)

Value: 1.13560017954354771095630

Number of terms: 512

Offset: 0

Sequence: 1, 3, 3, 4, 9, 12, 15, 21, 30, 43, 54, 69, 94, 123, 153, 193, 252, 318, 391, 486, 609, 754, 918, 1119, 1376, 1680, 2019, 2432, 2946, 3540, 4220, 5034, 6015, 7157, 8463, 9999, 11835, 13956, 16374, 19206, 22542, 26376, 30750, 35829, 41745, 48526, 56250

---

Sequence: A108091

Name: Coefficients of series whose 8th power is the theta series of E\_8 (see A004009).

$$\frac{\pi^{1/4} 2^{3/4} 3^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)}$$

Printed: 1/2\*Pi^(1/4)\*2^(3/4)\*3^(1/8)/GAMMA(3/4)

Value: 1.04806044522244138976806

Number of terms: 426

Offset: 0

Sequence: 1, 30, -2880, 416640, -69178110, 12378401280, -2321610157440, 449733567736320, -89200812128140800, 18013245273252679710, -3689479088922151082880, 764375901202388789804160, -159862757100127037505991680, 33699694000689939789618455040, -7152050326608893289997995966720, 1526705794390267864554876727856640

---

Sequence: A108092

Name: Coefficients of series whose 4th power is the theta series of D\_4 (see A004011).

$$\frac{\pi^{1/4} \sqrt{2} 3^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)}$$

Printed: 1/2\*Pi^(1/4)\*2^(1/2)\*3^(1/4)/GAMMA(3/4)

Value: 1.01104151441277668232808

Number of terms: 512

Offset: 0

Sequence: 1, 6, -48, 672, -10686, 185472, -3398304, 64606080, -1261584768, 25141699590, -509112525600, 10443131883360, -216500232587520, 4528450460408448, -95438941858567104, 2024550297637849728, -43190698219545864702, 925997705081213764608, -19940633776083900614736, 431091393800371703940576

---

Sequence: A108096

Name: Coefficients of square root of theta series of D\_4 (see A004011).

$$\frac{\sqrt{\pi} \sqrt{3}}{2 \Gamma\left(\frac{3}{4}\right)^2}$$

Printed: 1/2\*Pi^(1/2)\*3^(1/2)/GAMMA(3/4)^2  
 Value: 1.02220494386608091986016  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 12, -60, 768, -11004, 178200, -3093504, 56265216, -  
 1058194428, 20410970124, -401553531000, 8026398749952, -  
 162541338390528,  
 3327702330562584, -68761528402925568, 1432192515405350400, -  
 30037109244686774268, 633790586271852392472, -  
 13444940755220756447292,  
 286577646482211381212928

Sequence: A108494  
 Name: Expansion of f(-q) / f(q) in powers of q where f() is a Ramanujan theta function.

$$\frac{2^{7/8}}{2}$$

Printed: 1/2\*2^(7/8)  
 Value: .917004043204671231743540  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 2, -4, 6, -8, 12, -16, 22, -30, 40, -52, 68, -88, 112, -144, 182,  
 -228, 286, -356, 440, -544, 668, -816, 996, -1210, 1464, -1768,  
 2128, -2552, 3056, -3648, 4342, -5160, 6116, -7232, 8538, -10056, 11820, -  
 13872, 16248, -18996, 22176, -25844, 30068, -34936, 40528

Sequence: A109146  
 Name: G.f.: square root of theta series of lattice in A004535.

$$\frac{3 \pi^{7/4}}{4 \Gamma\left(\frac{3}{4}\right)^7}$$

Printed: 3/4\*Pi^(7/4)/GAMMA(3/4)^7  
 Value: 1.33994499922452164047761  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 0, 126, 1568, 756, -165312, -1227240, 19894464, 414106686, -456317568, -96106099320, -809737207776, 15047550684488, 345938324437440, -\ 318788546956992, -91256560218798912, -842108390970746508, 15331399952805675648, 380895013380314119302, -178390965727200705696

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Sequence: A111938

Name: a(n) = n times number of divisors of n of form 4m+1 - n times number of divisors of form 4m+3.

$$\frac{1}{8 \sqrt{\pi} \Gamma\left(\frac{3}{4}\right)^2 e^{-\pi}}$$

Printed: 1/8/Pi^(1/2)/GAMMA(3/4)^2/exp(-Pi)

Value: 1.08678551039276865738505

Number of terms: 512

Offset: 1

Sequence: 1, 2, 0, 4, 10, 0, 0, 8, 9, 20, 0, 0, 26, 0, 0, 16, 34, 18, 0, 40, 0, 0, 0, 0, 75, 52, 0, 0, 58, 0, 0, 32, 0, 68, 0, 36, 74, 0, 0, 80, 82, 0, 0, 0, 90, 0, 0, 0, 49, 150, 0, 104, 106, 0, 0, 0, 0, 116, 0, 0, 122, 0, 0, 64, 260, 0, 0, 136, 0, 0, 0, 72, 146, 148, 0, 0, 0, 0, 0, 160, 81, 164

-----

Sequence: A112142

Name: McKay-Thompson series of class 8B for the Monster group.

$$\frac{8}{\frac{\pi}{e^2}}$$

Printed: 8/exp(1/2\*Pi)

Value: 1.66303661080609526837565

Number of terms: 512

Offset: 0

Sequence: 1, 12, 66, 232, 639, 1596, 3774, 8328, 17283, 34520, 66882, 125568, 229244, 409236, 716412, 1231048, 2079237, 3459264, 5677832, 9200232, 14729592, 23325752, 36567222, 56778888, 87369483, 133315692, 201825420, 303257512

-----

Sequence: A112143

Name: McKay-Thompson series of class 8D for the Monster group.

$$\frac{4}{e^{\frac{\pi}{2}}}$$

Printed: 4/exp(1/2\*Pi)  
Value: .831518305403047634187824  
Number of terms: 512  
Offset: 0

Sequence: 1, -4, 2, 8, -1, -20, -2, 40, 3, -72, 2, 128, -4, -220, -4, 360, 5, -576,  
8, 904, -8, -1384, -10, 2088, 11, -3108, 12, 4552, -15, -6592,  
-18, 9448, 22, -13392, 26, 18816, -29, -26216, -34, 36224, 38, -49700, 42,  
67728, -51, -91688, -56, 123392, 66, -165128, 78, 219784, -85, -291072

---

Sequence: A112150  
Name: McKay-Thompson series of class 16a for the Monster group.

$$\frac{2\sqrt{2}}{e^{\frac{\pi}{4}}}$$

Printed: 2/exp(1/4\*Pi)\*2^(1/2)  
Value: 1.28958776777933779700947  
Number of terms: 512  
Offset: 0

Sequence: 1, 6, 15, 26, 51, 102, 172, 276, 453, 728, 1128, 1698, 2539, 3780,  
5505, 7882, 11238, 15918, 22259, 30810, 42438, 58110, 78909, 106392,  
142770, 190698, 253179, 334266, 439581, 575784, 750613, 974316, 1260336,  
1624702, 2086530, 2670162, 3406695, 4333590

---

Sequence: A112160  
Name: McKay-Thompson series of class 24E for the Monster group.

$$\frac{2}{e^{\frac{\pi}{6}}}$$

Printed: 2/exp(1/6\*Pi)  
Value: 1.18476969437677796733083  
Number of terms: 512  
Offset: 0

Sequence: 1, 4, 6, 8, 17, 28, 38, 56, 84, 124, 172, 232, 325, 448, 594, 784,  
1049, 1388, 1796, 2320, 3005, 3864, 4912, 6216, 7877, 9940, 12430,  
15488, 19309, 23972, 29580, 36408, 44766, 54876, 66978, 81536, 99150,  
120272, 145374, 175344, 211242

---

Sequence: A112603

Name: Number of representations of n as the sum of a square and a triangular number.

$$\frac{\sqrt{\pi} 2^{3/8}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{8}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/8 * \pi) * 2^{(3/8)}$

Value: 1.13347159818446916456478

Number of terms: 512

Offset: 0

Sequence: 1, 3, 2, 1, 4, 2, 1, 4, 0, 2, 5, 2, 2, 0, 2, 3, 4, 2, 0, 6, 0, 1, 4, 0, 2, 4,  
4, 0, 3, 2, 2, 4, 2, 0, 0, 2, 3, 8, 0, 2, 4, 0, 2, 0, 2, 3,  
6, 0, 0, 4, 2, 2, 4, 2, 2, 3, 2, 2, 0, 4, 0, 4, 0, 0, 8, 2, 1, 4, 0, 0, 8, 2, 2, 0, 2, 2,  
0, 2, 1, 4, 2, 4, 6, 0, 2, 4, 0, 4, 0, 0, 0, 7, 4, 0, 4, 2,  
2, 0, 0, 0, 6, 2, 4, 4, 2

---

Sequence: A112610

Name: Number of representations of n as a sum of two squares and two triangular numbers.

$$\frac{2^{3/4} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4 * 2^{(3/4)} * \pi / \text{GAMMA}(3/4)^4 / \exp(-1/4 * \pi)$

Value: 1.28475786389085472151599

Number of terms: 512

Offset: 0

Sequence: 1, 6, 13, 14, 18, 32, 31, 30, 48, 38, 42, 78, 57, 54, 80, 62, 84, 96,  
74, 96, 121, 108, 90, 128, 98, 102, 192, 110, 114, 182, 133, 156,  
176, 160, 138, 192, 180, 150, 234, 158, 192, 288, 183, 174, 240, 182, 228,  
320, 194, 198, 272, 252, 240, 288, 256, 252, 403, 230

---

Sequence: A113277

Name: Expansion of  $q^{(-1/3)} * \eta(q^2)^5 / \eta(q)^2$  in powers of q.

$$\frac{2^{1/4} \pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{3}}}$$

Printed:  $1/4 * 2^{(1/4)} * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/3 * \pi)$   
 Value: 1.08642723365982655997697  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 0, 0, 0, -4, 0, 0, -5, 0, 0, 0, 0, 0, 0, 0, 7, 0, 0, 0, 0, 8, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, -10, 0, 0, 0, 0, 0, 0, -11, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 13, 0, 0, 0, 0, 0, 0, 0, 0, 14, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -16, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, -17, 0, 0, 0, 0

Sequence: A114855  
 Name: Expansion of  $q^{(-1/3)} * (\eta(q) * \eta(q^4))^2 / \eta(q^2)$  in powers of q.

$$\frac{\pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{3}}}$$

Printed:  $1/4 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/3 * \pi)$   
 Value: .913572766218557872930992  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 0, 0, 0, 4, 0, 0, -5, 0, 0, 0, 0, 0, 0, 0, 7, 0, 0, 0, 0, -8, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 10, 0, 0, 0, 0, 0, 0, -11, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 13, 0, 0, 0, 0, 0, 0, 0, 0, -14, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 16, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, -17, 0, 0, 0, 0

Sequence: A115110  
 Name: Expansion of  $q^{(-1/24)} * \eta(q)^3 / \eta(q^2)$  in powers of q.

$$\frac{\sqrt{\pi} 2^{3/8}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{24}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/24 * \pi) * 2^{(3/8)}$   
 Value: .872393885166021224524890  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -3, 1, 2, 2, -1, -4, 1, -2, 0, 2, 4, -1, 2, -2, -1, 0, -2, -2, -2, 0, 4, 1,  
 0, 2, -2, 5, 0, -2, 0, 0, -4, -2, 0, 0, -3, 4, 0, 0, -2, 1  
 , 4, 2, 2, 0, 0, 0, -2, -2, 0, 2, -3, -2, 0, -2, 2, -4, 1, 0, 0, 0, 4, 2, 0, 4, 0, -4, 2,  
 0, 2, -1, 0, 0, 2, -2, -2, -6, -1, 2, 0, 0, -4, 0, 2, 2, 0,

0, 2, -2, 2, 2, 0, 1, 0, 0, 2, 4, 0, 0, -2, 1, -6, 0, -2, 0

---

Sequence: A115607

Name: Sum of odd divisors of n times (-1)^(n+1).

$$\frac{1}{24 e^{-\pi}}$$

Printed: 1/24/exp(-Pi)

Value: .964195526365802875238709

Number of terms: 512

Offset: 1

Sequence: 1, -1, 4, -1, 6, -4, 8, -1, 13, -6, 12, -4, 14, -8, 24, -1, 18, -13, 20, -6, 32, -12, 24, -4, 31, -14, 40, -8, 30, -24, 32, -1, 48, -18, 48, -13, 38, -20, 56, -6, 42, -32, 44, -12, 78, -24, 48, -4, 57, -31, 72, -14, 54, -40, 72, -8, 80, -30, 60, -24, 62, -32, 104, -1, 84, -48, 68, -18, 96, -48, 72, -13, 74, -38, 124

---

Sequence: A115977

Name: Expansion of elliptic modular function lambda in powers of the nome q.

$$\frac{1}{2 e^{-\pi}}$$

Printed: 1/2/exp(-Pi)

Value: 11.5703463163896345028645

Number of terms: 512

Offset: 1

Sequence: 16, -128, 704, -3072, 11488, -38400, 117632, -335872, 904784, -2320128, 5702208, -13504512, 30952544, -68901888, 149403264, -316342272, 655445792, -1331327616, 2655115712, -5206288384, 10049485312, -19115905536, 35867019904, -66437873664

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Sequence: A117410

Name: Expansion of q^(-5/24) \* eta(q^2)^3 / eta(q) in powers of q.

$$\frac{2^{7/8} \sqrt{\pi}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{5\pi}{24}}}$$

Printed: 1/4\*2^(7/8)\*Pi^(1/2)/GAMMA(3/4)^2/exp(-5/24\*Pi)

Value: 1.04134269300510035944420

Number of terms: 512



function.

$$\frac{\pi}{8 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed: 1/8\*Pi/GAMMA(3/4)^4/exp(-1/2\*Pi)

Value: .837746998853123845128604

Number of terms: 512

Offset: 0

Sequence: 1, -4, 6, -8, 13, -12, 14, -24, 18, -20, 32, -24, 31, -40, 30, -32, 48, -48, 38, -56, 42, -44, 78, -48, 57, -72, 54, -72, 80, -60, 62, -104, 84, -68, 96, -72, 74, -124, 96, -80, 121, -84, 108, -120, 90, -112, 128, -120, 98, -156, 102, -104, 192, -108, 110

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Sequence: A122163

Name: Expansion of f(-q)^2\*P(q) in powers of q.

$$\frac{3}{2 \sqrt{\pi} \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{6}}}$$

Printed: 3/2/Pi^(1/2)/GAMMA(3/4)^2/exp(-1/6\*Pi)

Value: .951359787933865965805101

Number of terms: 63

Offset: 0

Sequence: 1, -26, -25, 74, 49, 122, -146, 0, -194, -218, 121, 0, 0, 314, 507, -362, 386, 0, 0, -458, -482, 0, 0, -554, -289, 0, 626, 650, -674, 698, 361, 746, 0, 794, -818, -842, 866, 0, -914, 0, -1924, 0, 0, 0, 529, -1082, 0, 0, 1154, 0, 1202, 1226, 625, -1274, 0, 1322, 1346, 0, 0, -1418, 0, -1466

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Sequence: A122854

Name: Expansion of phi(q)^2\*psi(q)^4 in powers of q where phi(),psi() are Ramanujan theta functions.

$$\frac{\pi^{3/2} \sqrt{2}}{8 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{2}}}$$

Printed: 1/8\*Pi^(3/2)/GAMMA(3/4)^6/exp(-1/2\*Pi)\*2^(1/2)

Value: 1.39841226354943233331219

Number of terms: 512

Offset: 0

Sequence: 1, 8, 26, 48, 73, 120, 170, 208, 290, 360, 384, 528, 651, 656, 842, 960, 960, 1248, 1370, 1360, 1682, 1848, 1898, 2208, 2353, 2320, 2810, 3120, 2880, 3480, 3722, 3504, 4420, 4488, 4224, 5040, 5330, 5208, 5760, 6240, 5905, 6888, 7540, 6736, 7922, 8160, 7680

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Sequence: A122865

Name: Expansion of  $\chi(x) * \phi(x^3) * \psi(-x^3)$  in powers of  $x$  where  $\chi()$ ,  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\sqrt{\pi} \sqrt{2} 3^{1/4}}{6 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{3}}}$$

Printed:  $1/6 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/3 * \pi) * 2^{(1/2)} * 3^{(1/4)}$

Value: 1.04338244272183953745080

Number of terms: 512

Offset: 0

Sequence: 1, 1, 0, 2, 2, 1, 0, 0, 3, 0, 0, 2, 2, 2, 0, 0, 1, 2, 0, 2, 2, 1, 0, 0, 2, 0, 0, 2, 4, 0, 0, 0, 2, 3, 0, 2, 2, 0, 0, 0, 1, 0, 0, 4, 0, 2, 0, 0, 4, 2, 0, 0, 2, 2, 0, 0, 3, 0, 0, 2, 2, 0, 0, 0, 2, 1, 0, 2, 4, 2, 0, 0, 0, 0, 2, 2, 2, 0, 0, 2, 2, 0, 4, 0, 1, 0

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Sequence: A124863

Name: Expansion of  $1 / \chi(q)^{12}$  in powers of  $q$  where  $\chi()$  is a Ramanujan theta function.

$$\frac{1}{8 e^{-\frac{\pi}{2}}}$$

Printed:  $1/8 / \exp(-1/2 * \pi)$

Value: .601309672620668956934129

Number of terms: 512

Offset: 0

Sequence: 1, -12, 78, -376, 1509, -5316, 16966, -50088, 138738, -364284, 913824, -2203368, 5130999, -11585208, 25444278, -54504160, 114133296, -\ 234091152, 471062830, -931388232, 1811754522, -3471186596, 6556994502, -12222818640, 22502406793

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Sequence: A124972

Name: Expansion of Fricke's  $32 * \tau_4(z)$  in powers of  $q = \exp(2 * \pi * i * z)$ .

$$\frac{16}{e^\pi}$$

Printed: 16/exp(Pi)  
 Value: .691422692220355996390686  
 Number of terms: 512  
 Offset: -1

Sequence: 1, -8, 20, 0, -62, 0, 216, 0, -641, 0, 1636, 0, -3778, 0, 8248, 0, -  
 17277, 0, 34664, 0, -66878, 0, 125312, 0, -229252, 0, 409676, 0, -\  
 716420, 0, 1230328, 0, -2079227, 0, 3460416, 0, -5677816, 0, 9198424, 0, -  
 14729608, 0, 23328520, 0, -36567242, 0, 56774712, 0

Sequence: A128692  
 Name: Expansion of (theta\_4(q) / theta\_3(q))^4 in powers of q.

$$\frac{1}{2}$$

Printed: 1/2  
 Value: .50000000000000000000000000000000  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -16, 128, -704, 3072, -11488, 38400, -117632, 335872, -904784,  
 2320128, -5702208, 13504512, -30952544, 68901888, -149403264,  
 316342272  
 , -655445792, 1331327616, -2655115712, 5206288384, -10049485312,  
 19115905536, -35867019904, 66437873664

Sequence: A128712  
 Name: Expansion of q^(-1/8)\* eta(q)^5\* eta(q^2)^3/ eta(q^4)^2 in powers of q.

$$\frac{2^{3/8} \pi^{3/2}}{4 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{8}}}$$

Printed: 1/4\*2^(3/8)\*Pi^(3/2)/GAMMA(3/4)^6/exp(-1/8\*Pi)  
 Value: .789578542388853476134342  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -5, 2, 25, -28, -46, 49, 68, 0, -142, -11, 146, -94, 0, 98, 75, -28, -  
 238, 0, -10, 0, 169, 164, 0, 98, -124, -476, 0, -125, 434, 194,  
 -316, 386, 0, 0, -238, -285, 392, 0, -526, 356, 0, -478, 0, 194, 795, 230, 0, 0, -  
 124, -766, -334, -412, 50, 578, -245, 866, -238, 0, 196, 0, 644, 0,  
 0, -952, -1006

Sequence: A128713

Name: Expansion of  $q^{(-3/8)} \eta(q)^7 \eta(q^4)^2 / \eta(q^2)^3$  in powers of  $q$ .

$$\frac{\pi^{3/2} 2^{1/8}}{8 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{3\pi}{8}}}$$

Printed:  $1/8 * \pi^{(3/2)} / \text{GAMMA}(3/4)^6 / \exp(-3/8 * \pi) * 2^{(1/8)}$

Value: .728118274632215904301290

Number of terms: 512

Offset: 0

Sequence: 1, -7, 17, -14, 0, -7, 2, 41, -31, 25, -79, 0, 35, 89, 0, -46, -31, -103, 49, 0, 161, -85, 17, -14, 0, 0, 113, -142, -223, 0, 115, 233, 0, 146, -175, 41, -94, 0, -271, 0, 34, -7, 98, 329, 0, 75, 0, -343, 35, 0, 0, -238, 257, 0, 0, -439, 322, -28, 17, 425, 0, -391, 401, 169, 0, -199, -205, -343, -511

Sequence: A129588

Name: Expansion of  $q^{-1} * \theta_2(q)^4$  in powers of  $q^2$ .

$$\frac{2 \sqrt{2} \pi}{\Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed:  $2 * 2^{(1/2)} * \pi / \text{GAMMA}(3/4)^4 / \exp(-1/2 * \pi)$

Value: 18.9560506818471271242725

Number of terms: 512

Offset: 0

Sequence: 16, 64, 96, 128, 208, 192, 224, 384, 288, 320, 512, 384, 496, 640, 480, 512, 768, 768, 608, 896, 672, 704, 1248, 768, 912, 1152, 864, 1152, 1280, 960, 992, 1664, 1344, 1088, 1536, 1152, 1184, 1984, 1536, 1280, 1936, 1344, 1728, 1920, 1440

Sequence: A131018

Name: Expansion of  $(q^{-3}) * \psi(q) / \psi(q^{25})$  in powers of  $q$  where  $\psi()$  is a Ramanujan theta function.

$$\frac{2^{3/4} \pi^{1/4}}{4 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(1/4)/GAMMA(3/4)/exp(-1/4\*Pi)

Value: 1.00186744924412016730583

Number of terms: 512

Offset: -3

Sequence: 1, 1, 0, 1, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, -1, -1, 0, 0, 0, 0, -1, 0, 0, 0, -1, 1, 0, 0, 0, -1, 0, 0, 0, 0, 1, -1, 0, 0, 0, 1, 1, 0, 0, 0, 1, -1, 0, 0, 0, 1, 1, 0, 0, 0, -1, 1, 0, 0, 0, -2, -2, 0, 0, 0, -1, -2, 0

Sequence: A132136

Name: Expansion of  $-\lambda(t + 1)$  in powers of the nome  $q = \exp(\pi i t)$ .

$$\frac{1}{e^{-\pi}}$$

Printed: 1/exp(-Pi)

Value: 23.1406926327792690057290

Number of terms: 512

Offset: 1

Sequence: 16, 128, 704, 3072, 11488, 38400, 117632, 335872, 904784, 2320128, 5702208, 13504512, 30952544, 68901888, 149403264, 316342272, 655445792, 1331327616, 2655115712, 5206288384, 10049485312, 19115905536, 35867019904, 66437873664

Sequence: A132322

Name: McKay-Thompson series of class 46A for the Monster group with  $a(0) = -1$ .

$$\frac{2^{3/8}}{e^{\frac{\pi}{12}}}$$

Printed: 1/exp(1/12\*Pi)\*2^(3/8)

Value: .998132550768018763137000

Number of terms: 512

Offset: -1

Sequence: 1, -1, 0, -1, 1, -1, 1, -1, 2, -2, 2, -2, 3, -3, 3, -4, 5, -5, 5, -6, 7, -8, 8, -10, 12, -12, 13, -15, 17, -18, 19, -22, 25, -27, 28, -32, 36, -38, 41, -46, 51, -54, 58, -64, 71, -76, 81, -89, 99, -105, 112, -123, 134, -

143, 153, -167, 182, -194, 207, -225, 244, -260, 277, -301, 325, -\ 346, 369, -398, 429, -458

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Sequence: A132969

Name: Expansion of  $\phi(q) * \chi(q)$  in powers of  $q$  where  $\phi()$ ,  $\chi()$  are Ramanujan theta functions.

$$\frac{2^{1/4} \pi^{1/4}}{\Gamma\left(\frac{3}{4}\right) e^{\frac{\pi}{24}}}$$

Printed:  $2^{1/4} * \pi^{1/4} / \text{GAMMA}(3/4) / \exp(1/24 * \pi)$

Value: 1.13347555101555277562449

Number of terms: 512

Offset: 0

Sequence: 1, 3, 2, 1, 5, 5, 3, 5, 6, 10, 10, 8, 13, 15, 15, 16, 23, 27, 25, 30, 35, 40, 42, 45, 55, 66, 68, 70, 86, 95, 100, 110, 125, 141, 150, 161, 185, 207, 215, 235, 266, 293, 310, 335, 375, 410, 438, 470, 521, 575, 610, 653, 725, 785, 835, 900, 983, 1070, 1140

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Sequence: A132970

Name: Expansion of  $\phi(-x) * \chi(-x)$  in powers of  $x$  where  $\phi()$ ,  $\chi()$  are Ramanujan theta functions.

$$\frac{\pi^{1/4} 2^{7/8}}{2 \Gamma\left(\frac{3}{4}\right) e^{\frac{\pi}{24}}}$$

Printed:  $1/2 * \pi^{1/4} / \text{GAMMA}(3/4) / \exp(1/24 * \pi) * 2^{7/8}$

Value: .874029132555708091876280

Number of terms: 512

Offset: 0

Sequence: 1, -3, 2, -1, 5, -5, 3, -5, 6, -10, 10, -8, 13, -15, 15, -16, 23, -27, 25, -30, 35, -40, 42, -45, 55, -66, 68, -70, 86, -95, 100, -110, 125, -141, 150, -161, 185, -207, 215, -235, 266, -293, 310, -335, 375, -410, 438, -470, 521, -575, 610, -653, 725, -785, 835, -900, 983, -1070, 1140, -1220, 1331

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Sequence: A132977

Name: Expansion of  $q^{(-1/3)} * (\eta(q^6))^4 / (\eta(q) * \eta(q^3) * \eta(q^4) * \eta(q^{12}))^2$  in powers of  $q$ .

$$\frac{2\sqrt{3}}{9e^{-\frac{\pi}{3}}}$$

Printed: 2/9/exp(-1/3\*Pi)\*3^(1/2)  
 Value: 1.09683230067450594959456  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 5, 12, 26, 50, 92, 168, 295, 496, 818, 1332, 2126, 3324, 5126, 7824, 11793, 17548, 25857, 37788, 54734, 78578, 111968, 158496, 222842, 311224, 432095, 596676, 819504, 1119624, 1522282, 2060448, 2776514, 3725294, 4978142, 6626988, 8789042

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Sequence: A133089  
 Name: Expansion of f(x)^3 in powers of x where f() is a Ramanujan theta function.

$$\frac{\pi^{3/4} 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{8}}}$$

Printed: 1/2\*Pi^(3/4)/GAMMA(3/4)^3/exp(-1/8\*Pi)\*2^(1/4)  
 Value: 1.12923821161678467290154  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 3, 0, -5, 0, 0, -7, 0, 0, 0, 9, 0, 0, 0, 0, 11, 0, 0, 0, 0, 0, -13, 0, 0, 0, 0, 0, 0, -15, 0, 0, 0, 0, 0, 0, 0, 17, 0, 0, 0, 0, 0, 0, 0, 0, 0, 19, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -21, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -23, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 25, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 27, 0, 0, 0, 0, 0, 0, 0

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Sequence: A134343  
 Name: Expansion of psi(-x)^2 in powers of x where psi() is a Ramanujan theta function.

$$\frac{\sqrt{2} \sqrt{\pi}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(1/2)\*Pi^(1/2)/GAMMA(3/4)^2/exp(-1/4\*Pi)  
 Value: .915285200827110415663055  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 1, -2, 2, 0, 3, -2, 0, -2, 2, -2, 1, -2, 0, -2, 4, 0, 2, 0, 1, -4, 2, 0, 2, -2, 0, -2, 2, -2, 1, -4, 0, 0, 2, 0, 4, -2, 2, -2, 0, 0, 3, -2, 0, -2, 4, 0, 2, -2, 0, -4, 0, 0, 0, -4, 3, -2, 2, 0, 2, -2, 0, 0, 2, -2, 4, -2, 0, -2, 2, 0, 3, -2, 0, 0, 4, 0, 2

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Sequence: A134414

Name: Expansion of  $\eta(q)^2 / (\eta(q^2) * \eta(q^4)^6)$  in powers of  $q$ .

$$\frac{32 \Gamma\left(\frac{3}{4}\right)^5}{\pi^{5/4} e^\pi}$$

Printed:  $32/\pi^{(5/4)} * \text{GAMMA}(3/4)^5 / \exp(\pi)$

Value: .913598254235450764424544

Number of terms: 512

Offset: -1

Sequence: 1, -2, 0, 0, 8, -12, 0, 0, 39, -56, 0, 0, 152, -208, 0, 0, 513, -684, 0, 0, 1560, -2032, 0, 0, 4382, -5616, 0, 0, 11552, -14592, 0, 0, 28899, -36088, 0, 0, 69168, -85500, 0, 0, 159372, -195312, 0, 0, 355224, -431984, 0, 0, 768885, -928720, 0, 0, 1621296, -1946352, 0, 0, 3339201

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Sequence: A134415

Name: Expansion of  $\phi(x) / f(-x)^6$  in powers of  $x$  where  $\phi()$ ,  $f()$  are Ramanujan theta functions..

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^5 2^{1/4}}{\pi^{5/4} e^{\frac{\pi}{4}}}$$

Printed:  $4/\pi^{(5/4)} * \text{GAMMA}(3/4)^5 / \exp(1/4 * \pi) * 2^{(1/4)}$

Value: 1.43286422088603952868134

Number of terms: 512

Offset: 0

Sequence: 1, 8, 39, 152, 513, 1560, 4382, 11552, 28899, 69168, 159372, 355224, 768885, 1621296, 3339201, 6732232, 13311450, 25854744, 49398043, 92953016, 172451760, 315744072, 570997539, 1020691248, 1804730732, 3158323272, 5473566645, 9398873032, 15998363307, 27005721648

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Sequence: A134416

Name: Expansion of  $\eta(q^4)^2 / (\eta(q^2) * \eta(q)^6)$  in powers of  $q$ .

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^5}{\pi^{5/4}}$$

Printed: 2/Pi^(5/4)\*GAMMA(3/4)^5  
 Value: 1.32133102444414356879573  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 6, 28, 104, 342, 1016, 2808, 7296, 18044, 42750, 97656,  
 215992, 464360, 973176, 1993328, 3998592, 7870038, 15221232, 28968084,  
 54311736, 100421688, 183281904, 330468216, 589084288, 1038850488,  
 1813500030, 3135518440, 5372110496, 9124793472, 15371832424

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Sequence: A134461  
 Name: Expansion of (phi(x) \* psi(-x))^4 in powers of x where phi(), psi() are Ramanujan theta functions.

$$\frac{\pi^2}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{2}}}$$

Printed: 1/8\*Pi^2/GAMMA(3/4)^8/exp(-1/2\*Pi)  
 Value: 1.16715241088455436592138  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, -2, -24, -11, 44, 22, -8, 50, -44, -96, 56, -121, -152, 198, 160,  
 176, 48, -162, 88, -198, -52, 22, -528, 233, 200, -242, -88, -176  
 , 668, 550, 264, -44, -188, 224, -728, 154, -484, -1056, 656, -311, -236, -100,  
 792, 714, -528, 640, 88, -478, -484, 1566, 968, 192, 780, -1994, -648,  
 -942

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Sequence: A135828  
 Name: Expansion of psi(x^2)^8 \* (psi(x)^8 + psi(-x)^8) / 2 in powers of x^2 where psi() is a Ramanujan theta function.

$$\frac{3 \pi^4 \sqrt{2}}{512 \Gamma\left(\frac{3}{4}\right)^{16} e^{-\frac{3 \pi}{2}}}$$

Printed: 3/512\*Pi^4/GAMMA(3/4)^16/exp(-3/2\*Pi)\*2^(1/2)  
 Value: 3.47527827445388077797893  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 36, 378, 2200, 8955, 28836, 78558, 188568, 410805, 828080, 1564686, 2804976, 4809370, 7927380, 12643560, 19594632, 29568204, 43626708, 63094550, 89501040, 124916931, 171803652, 232822908, 311683680, 412601490, 539849556, 699657642, 898801400, 1143680535

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Sequence: A137828

Name: Expansion of  $\phi(x) / f(-x^4)^2$  in powers of  $x$  where  $\phi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{2 \Gamma\left(\frac{3}{4}\right) 2^{3/4}}{\pi^{1/4} e^{\frac{\pi}{3}}}$$

Printed:  $2/\pi^{1/4} * \text{GAMMA}(3/4) / \exp(1/3 * \pi) * 2^{3/4}$

Value: 1.08644238881964097637574

Number of terms: 512

Offset: 0

Sequence: 1, 2, 0, 0, 4, 4, 0, 0, 9, 12, 0, 0, 20, 24, 0, 0, 42, 50, 0, 0, 80, 92, 0, 0, 147, 172, 0, 0, 260, 296, 0, 0, 445, 510, 0, 0, 744, 840, 0, 0, 1215, 1372, 0, 0, 1944, 2176, 0, 0, 3059, 3424, 0, 0, 4740, 5268, 0, 0, 7239, 8040, 0, 0, 10920, 12072, 0, 0, 16286

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Sequence: A137829

Name: Expansion of  $\psi(q^2) / f(-q)^2$  in powers of  $q$  where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\Gamma\left(\frac{3}{4}\right) \sqrt{2}}{2 \pi^{1/4} e^{-\frac{\pi}{6}}}$$

Printed:  $1/2 * \pi^{1/4} * \text{GAMMA}(3/4) / \exp(-1/6 * \pi) * 2^{1/2}$

Value: 1.09869560802427764632762

Number of terms: 512

Offset: 0

Sequence: 1, 2, 6, 12, 25, 46, 86, 148, 255, 420, 686, 1088, 1712, 2634, 4020, 6036, 8988, 13214, 19282, 27840, 39923, 56750, 80160, 112384, 156660, 216958, 298894, 409420, 558119, 756950, 1022090, 1373760, 1838932, 2451366, 3255480, 4306920, 5678104, 7459634, 9768386

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Sequence: A137830

Name: Expansion of  $\phi(-x) / f(-x^4)^2$  in powers of  $x$  where  $\phi()$ ,  $f()$  are

Ramanujan theta functions.

$$\frac{2 \Gamma\left(\frac{3}{4}\right) \sqrt{2}}{\pi^{1/4} e^{\frac{\pi}{3}}}$$

Printed: 2/Pi^(1/4)\*GAMMA(3/4)/exp(1/3\*Pi)\*2^(1/2)  
 Value: .913585510138118412830478  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 0, 0, 4, -4, 0, 0, 9, -12, 0, 0, 20, -24, 0, 0, 42, -50, 0, 0, 80, -  
 92, 0, 0, 147, -172, 0, 0, 260, -296, 0, 0, 445, -510, 0, 0,  
 744, -840, 0, 0, 1215, -1372, 0, 0, 1944, -2176, 0, 0, 3059, -3424, 0, 0, 4740, -  
 5268, 0, 0, 7239, -8040, 0, 0, 10920

Sequence: A138501  
 Name: Expansion of (eta(q)^2 \* eta(q^4)^4 / eta(q^2)^3)^2 in powers of q.

$$\frac{\pi^{3/2} \sqrt{2}}{64 \Gamma\left(\frac{3}{4}\right)^6 e^{-\pi}}$$

Printed: 1/64\*Pi^(3/2)/GAMMA(3/4)^6/exp(-Pi)\*2^(1/2)  
 Value: .840878820383637793111264  
 Number of terms: 512  
 Offset: 1

Sequence: 1, -4, 8, -16, 26, -32, 48, -64, 73, -104, 120, -128, 170, -192, 208, -  
 256, 290, -292, 360, -416, 384, -480, 528, -512, 651, -680, 656, -\  
 768, 842, -832, 960, -1024, 960, -1160, 1248, -1168, 1370, -1440, 1360, -  
 1664, 1682, -1536, 1848, -1920, 1898, -2112, 2208, -2048, 2353, -2604

Sequence: A138502  
 Name: Expansion of q^(-1/2) \* (eta(q)^4 \* eta(q^4)^2 / eta(q^2)^3)^2 in powers of q.

$$\frac{\pi^{3/2} \sqrt{2}}{16 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{2}}}$$

Printed: 1/16\*Pi^(3/2)/GAMMA(3/4)^6/exp(-1/2\*Pi)\*2^(1/2)  
 Value: .699206131774716166656094  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -8, 26, -48, 73, -120, 170, -208, 290, -360, 384, -528, 651, -656, 842, -960, 960, -1248, 1370, -1360, 1682, -1848, 1898, -2208, 2353, -2320, 2810, -3120, 2880, -3480, 3722, -3504, 4420, -4488, 4224, -5040, 5330, -5208, 5760, -6240, 5905, -6888, 7540, -6736, 7922, -8160, 7680

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Sequence: A138504

Name: Expansion of  $(\eta(q^2)^9 / (\eta(q)^2 * \eta(q^4)^4))^2$  in powers of  $q$ .

$$\frac{\pi^{3/2} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right)^6}$$

Printed:  $1/2 * \pi^{(3/2)} / \text{GAMMA}(3/4)^6 * 2^{(1/2)}$

Value: 1.16280539564146401195078

Number of terms: 512

Offset: 0

Sequence: 1, 4, -4, -32, -4, 104, 32, -192, -4, 292, -104, -480, 32, 680, 192, -832, -4, 1160, -292, -1440, -104, 1536, 480, -2112, 32, 2604, -680, -2624, 192, 3368, 832, -3840, -4, 3840, -1160, -4992, -292, 5480, 1440, -5440, -104, 6728, -1536, -7392, 480, 7592, 2112, -8832, 32, 9412, -2604, -9280

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Sequence: A138514

Name: Expansion of  $q^{(-1/8)} * \eta(q^2)^4 / (\eta(q) * \eta(q^4))$  in powers of  $q$ .

$$\frac{\sqrt{\pi} 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{8}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/8 * \pi) * 2^{(1/4)}$

Value: 1.03939803839281871186148

Number of terms: 512

Offset: 0

Sequence: 1, 1, -2, -1, 0, -2, 1, 0, 0, 2, 1, 2, -2, 0, 2, 1, 0, -2, 0, -2, 0, -1, 0, 0, -2, 0, 0, 0, -1, 2, -2, 0, 2, 0, 0, 2, 3, 0, 0, -2, 0, 0, 2, 0, 2, 1, -2, 0, 0, 0, -2, -2, 0, 2, -2, 1, -2, -2, 0, 0, 0, 0, 0, 0, -2, 1, 0, 0, 0, 0, -2, 2, 0, 2, 2, 0, 2, 1, 0, -2, 0, 2, 0, -2, 0, 0, 4, 0, 0, 0, 1, 0, 0, 0, -2, -2, 0, 0, 0, 2, -2, 0, 0, -2

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Sequence: A138515

Name: Expansion of  $q^{(-1/4)} * \eta(q^2)^8 / (\eta(q) * \eta(q^4))^2$  in powers of  $q$ .

$$\frac{\sqrt{2} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4*2^{(1/2)*Pi}/\text{GAMMA}(3/4)^4/\text{exp}(-1/4*Pi)$

Value: 1.08034828221483944095134

Number of terms: 512

Offset: 0

Sequence: 1, 2, -3, -6, 2, 0, -1, 10, 0, 2, 10, -6, -7, -14, 0, 10, -12, 0, -6, 0, 9,  
4, 10, 0, 18, 2, 0, -6, -14, 18, -11, -12, 0, 0, -22, 0, 20,  
-14, -6, -22, 0, 0, 23, 26, 0, 18, 4, 0, -14, 2, 0, 20, 0, 0, 0, -12, 3, -30, 26, 0, -  
30, -14, 0, 0, 2, -30, -28, 26, 0, 18, 10, 0, -13, 34, 0, 0, 20,  
0, 26, -22, 0, 6, 0, -6, 18, 0

Sequence: A138559

Name: Expansion of  $\phi(x) * \chi(-x)$  in powers of  $x$  where  $\phi()$ ,  $\chi()$  are Ramanujan theta functions.

$$\frac{2^{1/8} \pi^{1/4}}{\Gamma\left(\frac{3}{4}\right) e^{\frac{\pi}{24}}}$$

Printed:  $2^{(1/8)*Pi^{(1/4)}/\text{GAMMA}(3/4)/\text{exp}(1/24*Pi)$

Value: 1.03940166315490448830507

Number of terms: 512

Offset: 0

Sequence: 1, 1, -2, -1, 1, -1, -1, -1, 2, 2, -2, 0, 1, 1, -1, 0, 3, 1, -3, -2, 3, 0, -2,  
-1, 3, 2, -4, -2, 2, 1, -4, -2, 5, 3, -6, -1, 5, 1, -5, -3  
, 6, 3, -6, -3, 7, 2, -6, -2, 9, 5, -10, -5, 9, 3, -9, -4, 11, 6, -12, -4, 11, 5, -12, -  
5, 14, 6, -16, -7, 15, 5, -16, -7, 19, 9, -20, -8, 19, 7, -20,  
-10, 24, 11, -25, -11, 24, 9, -26, -11, 29, 13, -31, -13

Sequence: A139093

Name: Expansion of  $\phi(q) * \phi(-q^2)$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\sqrt{\pi} 2^{7/8}}{2 \Gamma\left(\frac{3}{4}\right)^2}$$

Printed:  $1/2*Pi^{(1/2)*2^{(7/8)}/\text{GAMMA}(3/4)^2$

Value: 1.08237710165638382563814

Number of terms: 512  
Offset: 0

Sequence: 1, 2, -2, -4, 2, 0, -4, 0, 2, 6, 0, -4, 4, 0, 0, 0, 2, 4, -6, -4, 0, 0, -4, 0,  
4, 2, 0, -8, 0, 0, 0, 0, 2, 8, -4, 0, 6, 0, -4, 0, 0, 4, 0  
, -4, 4, 0, 0, 0, 4, 2, -2, -8, 0, 0, -8, 0, 0, 8, 0, -4, 0, 0, 0, 0, 2, 0, -8, -4, 4, 0,  
0, 0, 6, 4, 0, -4, 4, 0, 0, 0, 0, 10, -4, -4, 0, 0, -4, 0, 4  
, 4, 0, 0, 0, 0, 0, 4, 4, -2, -12, 2, 0, -8, 0

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Sequence: A139582  
Name: Twice partition numbers.

$$\frac{2 \cdot 2^{3/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{24}}}$$

Printed:  $2 \cdot 2^{3/8} / \pi^{1/4} \cdot \text{GAMMA}(3/4) / \exp(1/24 \cdot \pi)$   
Value: 2.09441894009208426043960  
Number of terms: 52  
Offset: 0

Sequence: 2, 2, 4, 6, 10, 14, 22, 30, 44, 60, 84, 112, 154, 202, 270, 352, 462,  
594, 770, 980, 1254, 1584, 2004, 2510, 3150, 3916, 4872, 6020, 7436  
, 9130, 11208, 13684, 16698, 20286, 24620, 29766, 35954, 43274, 52030,  
62370, 74676, 89166, 106348, 126522, 150350, 178268, 211116, 249508,  
294546,  
347050, 408452

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Sequence: A139820  
Name: Expansion of  $(\phi(-q) / \phi(q))^2$  in powers of  $q$  where  $\phi()$  is a  
Ramanujan theta function.

$$\frac{\sqrt{2}}{2}$$

Printed:  $1/2 \cdot 2^{1/2}$   
Value: .707106781186547524400845  
Number of terms: 512  
Offset: 0

Sequence: 1, -8, 32, -96, 256, -624, 1408, -3008, 6144, -12072, 22976, -  
42528, 76800, -135728, 235264, -400704, 671744, -1109904, 1809568, -  
2914272  
, 4640256, -7310592, 11404416, -17626944, 27009024, -41047992, 61905088,  
-92681664, 137803776, -203554224

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Offset: 0

Sequence: 1, -8, -8, -32, -40, -48, -32, -64, -104, -104, -48, -96, -160, -112, -64, -192, -232, -144, -104, -160, -240, -256, -96, -192, -416, -\ 248, -112, -320, -320, -240, -192, -256, -488, -384, -144, -384, -520, -304, -160, -448, -624, -336, -256, -352, -480, -624, -192, -384, -928, -456, -\ 248, -576, -560, -432

Sequence: A143337

Name: Expansion of  $K(k) * (6 * E(k) - (1 + 4*k'^2) * K(k)) / (\pi/2)^2$  in powers of q where E(k), K(k) are complete elliptic integrals and  $q = \exp(-\pi * K(k') / K(k))$ .

$$\frac{6}{\pi}$$

Printed: 6/Pi

Value: 1.90985931710274402922661

Number of terms: 49

Offset: 0

Sequence: 1, 24, -72, 96, -168, 144, -288, 192, -360, 312, -432, 288, -672, 336, -576, 576, -744, 432, -936, 480, -1008, 768, -864, 576, -1440, 744, -1008, 960, -1344, 720, -1728, 768, -1512, 1152, -1296, 1152, -2184, 912, -1440, 1344, -2160, 1008, -2304, 1056, -2016, 1872, -1728, 1152

Sequence: A143377

Name: Expansion of  $q^{(-1/6)} * \eta(q)^2 * \eta(q^4) / \eta(q^2)$  in powers of q.

$$\frac{2^{7/8} \sqrt{\pi}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{6}}}$$

Printed:  $1/4 * 2^{(7/8)} * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/6 * \pi)$

Value: .913575952181782036174165

Number of terms: 512

Offset: 0

Sequence: 1, -2, 0, 0, 1, 2, 0, 0, -3, 0, 0, 0, -2, 2, 0, 0, 2, 2, 0, 0, -1, -2, 0, 0, 0, -2, 0, 0, 1, -2, 0, 0, 2, 2, 0, 0, 4, -2, 0, 0, -2, 0, 0, 0, 0, -2, 0, 0, -1, 0, 0, 0, -2, 0, 0, 0, 2, 4, 0, 0, -1, 2, 0, 0, 0, 0, 0, 0, -2, 0, 0, 0, -2, 2, 0, 0, -2, -2, 0, 0, 0, -2, 0, 0, 0, 4, 0, 0, 1, 0, 0, 0, 4, 0, 0, 0, -2, 0, 0, 0, 2, -2, 0, 0, 1

Sequence: A143378

Name: Expansion of  $q^{(-1/24)} * \eta(q^2)^5 / (\eta(q) * \eta(q^4)^2)$  in powers of q.

$$\frac{\sqrt{\pi} 2^{5/8}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{24}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/24 * \pi) * 2^{(5/8)}$   
 Value: 1.03745701532429923841149  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, -3, -2, 2, -1, 0, 1, 2, 4, -2, 0, -1, -2, 2, -1, 0, -2, -2, -2, 0, 0, 1, 4, -2, 2, 1, 0, -2, 0, 4, 0, 2, 0, 0, 1, 0, -4, 0, -2, -3, 0, 2, 2, -4, 0, 0, 2, -2, 0, -2, -3, 2, 0, 2, 2, 0, 1, 4, 0, 0, 0, 2, 0, 0, -4, 0, 2, 0, 2, -1, 0, 0, 2, -2, 2, -2, -1, -2, -4, 0, 0, 0, -2, -2, 0, 0, 2, 2, -2, 2, 0, 1, 0, 0, -2, 0, 0, 0, -2, 5, 2, -4, 2, 0

Sequence: A143379  
 Name: Expansion of  $q^{(-7/24)} * \eta(q) * \eta(q^4)^2 / \eta(q^2)$  in powers of q.

$$\frac{2^{3/8} \sqrt{\pi}}{4 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{7\pi}{24}}}$$

Printed:  $1/4 * 2^{(3/8)} * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-7/24 * \pi)$   
 Value: .956702052360232730543892  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -1, 0, -1, -1, 1, 1, 1, -1, 1, 0, 1, 0, 0, -2, -1, 0, 0, -1, 1, 1, -2, 0, 0, 0, 1, 1, 0, 2, 0, 1, -1, -1, 0, 1, -1, 0, 0, 1, 0, -1, -1, 0, -1, -1, -1, 0, 0, 0, 1, 0, 1, 0, 1, -1, -1, 2, 0, -1, 1, -1, 1, 0, 3, 1, -1, 0, 0, 0, 1, -2, 0, 0, -1, -1, 0, -1, 0, 1, 0, 0, 1, -1, -1, -1, 0, 0, 0, 0, 0, -1, 0, -2, 0, 1, 2, 1, -1, 0, 2, 1, 0, 0, 0, 0, 1

Sequence: A143380  
 Name: Expansion of  $q^{(-1/6)} * \eta(q^2)^5 / (\eta(q)^2 * \eta(q^4))$  in powers of q.

$$\frac{\sqrt{\pi} 2^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{6}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/6 * \pi) * 2^{(1/8)}$   
 Value: 1.08643102242996087191490  
 Number of terms: 512

Offset: 0

Sequence: 1, 2, 0, 0, 1, -2, 0, 0, -3, 0, 0, 0, -2, -2, 0, 0, 2, -2, 0, 0, -1, 2, 0, 0,  
0, 2, 0, 0, 1, 2, 0, 0, 2, -2, 0, 0, 4, 2, 0, 0, -2, 0, 0,  
0, 0, 2, 0, 0, -1, 0, 0, 0, -2, 0, 0, 0, 2, -4, 0, 0, -1, -2, 0, 0, 0, 0, 0, 0, -2, 0, 0,  
0, -2, -2, 0, 0, -2, 2, 0, 0, 0

---

Sequence: A143894

Name: Expansion of  $(\chi(q)^5 * \chi(-q))^2$  in powers of q where  $\chi()$  is a Ramanujan theta function.

$$\frac{4 \cdot 2^{3/4}}{e^{\frac{\pi}{2}}}$$

Printed:  $4/\exp(1/2*\pi)*2^{(3/4)}$

Value: 1.39844152446253234508024

Number of terms: 512

Offset: 0

Sequence: 1, 8, 26, 48, 79, 168, 326, 496, 755, 1296, 2106, 3072, 4460, 6840,  
10284, 14448, 20165, 29184, 41640, 56880, 77352, 107472, 147902,  
197616, 263019, 354888, 475516, 624048, 816065, 1076736, 1413142,  
1826416, 2353446, 3050400, 3936754, 5022720

---

Sequence: A143895

Name: Expansion of  $(\chi(q)^4 / \chi(-q))^2$  in powers of q where  $\chi()$  is a Ramanujan theta function.

$$\frac{2 \cdot 2^{3/4}}{e^{\frac{\pi}{4}}}$$

Printed:  $2/\exp(1/4*\pi)*2^{(3/4)}$

Value: 1.53358694886366531254628

Number of terms: 512

Offset: 0

Sequence: 1, 10, 47, 150, 403, 1002, 2316, 5004, 10309, 20456, 39240,  
73102, 132779, 235868, 410785, 702630, 1182342, 1960418, 3206675,  
5179670,  
8270086, 13062994, 20427293, 31644200, 48589970, 73994118, 111802523,  
167685238, 249745021, 369499928

---

Sequence: A144614

Name: Sum of divisors of  $3*n + 1$ .

$$\frac{\pi \sqrt{2} 3^{3/4}}{36 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{2\pi}{3}}}$$

Printed: 1/36\*Pi/GAMMA(3/4)^4/exp(-2/3\*Pi)\*2^(1/2)\*3^(3/4)

Value: 1.01310011525519072945215

Number of terms: 512

Offset: 0

Sequence: 1, 7, 8, 18, 14, 31, 20, 36, 31, 56, 32, 54, 38, 90, 44, 72, 57, 98, 72, 90, 62, 127, 68, 144, 74, 140, 80, 126, 108, 180, 112, 144, 98, 217, 104, 162, 110, 248, 144, 180, 133, 224, 128, 252, 160, 270, 140, 216, 180, 266, 152, 288, 158, 378, 164, 252, 183, 308

Sequence: A145094

Name: Coefficients in expansion of Eisenstein series  $q^*E'_4$ .

$$\frac{3\pi}{4 \Gamma\left(\frac{3}{4}\right)^8 e^{-2\pi}}$$

Printed: 3/4\*Pi/GAMMA(3/4)^8/exp(-2\*Pi)

Value: 248.138115659815527188464

Number of terms: 512

Offset: 1

Sequence: 240, 4320, 20160, 70080, 151200, 362880, 577920, 1123200, 1635120, 2721600, 3516480, 5886720, 6857760, 10402560, 12700800, 17975040, 20049120, 29432160, 31281600, 44150400, 48545280, 63296640, 67167360, 94348800, 94506000, 123439680, 132451200

Sequence: A145095

Name: Coefficients in expansion of Eisenstein series  $-q^*E'_6$ .

$$\frac{9\pi^4}{32 \Gamma\left(\frac{3}{4}\right)^{16} e^{-2\pi}}$$

Printed: 9/32\*Pi^4/GAMMA(3/4)^16/exp(-2\*Pi)

Value: 567.419167003923757316675

Number of terms: 512

Offset: 1

Sequence: 504, 33264, 368928, 2130912, 7877520, 24349248, 59298624, 136382400, 268953048, 519916320, 892872288, 1559827584, 2432718288,

3913709184,  
 5766344640, 8728481664, 12165343344, 17750901168, 23711133600,  
 33306154560, 43406592768, 58929571008

---

Sequence: A145155  
 Name: Coefficients in expansion of Delta'(q).

$$\frac{3 \pi^5}{4096 \Gamma\left(\frac{3}{4}\right)^{24} e^{-2 \pi}}$$

Printed: 3/4096\*Pi^5/GAMMA(3/4)^24/exp(-2\*Pi)  
 Value: .912961127489193082786296  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -48, 756, -5888, 24150, -36288, -117208, 675840, -1022787, -  
 1159200, 5880732, -4451328, -7510594, 5625984, 18257400, 15794176, -\  
 117400878, 49093776, 202566980, -142195200, -88609248, -282275136,  
 428795256, 510935040, -637480625, 360508512, -1978535160

---

Sequence: A153728  
 Name: Expansion of q^(-1/3) \* (eta(q)^8 + 8 \* eta(q^4)^8) in powers of q^2.

$$\frac{3 \pi^2 \sqrt{2}}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{6}}}$$

Printed: 3/8\*Pi^2/GAMMA(3/4)^8/exp(-1/6\*Pi)\*2^(1/2)  
 Value: 1.73768761609728446645070  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 20, -70, 56, -125, 308, 110, -520, 57, 0, 182, -880, 1190, 884, 0,  
 -1400, -1330, 1820, -646, 0, -1331, 380, 1120, 2576, 0, 1748, -3850  
 , -3400, 2703, -2500, 3458, 0, -1150, -5236, 0, 6032, 6160, -3220, 4466, 0, -  
 7378, -3920, 0, 2200, 0, 812, -4030, 5600, -4913

---

Sequence: A153729  
 Name: Expansion of q^(-1/3) \* (eta(q)^8 + 32 \* eta(q^4)^8) in powers of q.

$$\frac{3 \pi^2}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{3}}}$$

Printed: 3/8\*Pi^2/GAMMA(3/4)^8/exp(-1/3\*Pi)

Value: 2.07421020770221958756611

Number of terms: 512

Offset: 0

Sequence: 1, 24, 20, 0, -70, -192, 56, 0, -125, 480, 308, 0, 110, 0, -520, 0, 57,  
-1680, 0, 0, 182, 1536, -880, 0, 1190, 1344, 884, 0, 0, 0, -1400,  
0, -1330, -3000, 1820, 0, -646, -3840, 0, 0, -1331, 7392, 380, 0, 1120, 0,  
2576, 0, 0, 2640, 1748, 0, -3850, 0, -3400, 0, 2703, -12480, -2500, 0

-----

Sequence: A159814

Name: Expansion of eta(z)^2\*eta(4\*z)^6/eta(2\*z).

$$\frac{\pi^{7/4} \sqrt{2}}{64 \Gamma\left(\frac{3}{4}\right)^7 e^{-\pi}}$$

Printed: 1/64\*Pi^(7/4)/GAMMA(3/4)^7/exp(-Pi)\*2^(1/2)

Value: .913560022476766664925753

Number of terms: 512

Offset: 1

Sequence: 1, -2, 0, 0, -4, 12, 0, 0, -3, -20, 0, 0, 28, -8, 0, 0, -8, 42, 0, 0, -72, -  
20, 0, 0, 29, 36, 0, 0, 84, -72, 0, 0, 24, -40, 0, 0, -68, 36  
, 0, 0, -112, 24, 0, 0, 84, 248, 0, 0, -39, -158, 0, 0, -12, -144, 0, 0, 216, -116,  
0, 0, -108, -16, 0, 0, 80, 144, 0, 0, 48, 152, 0, 0, -232, 220

-----

Sequence: A159819

Name: Coefficients of L-series for elliptic curve \48a4\: y^2 = x^3 + x^2 + x.

$$\frac{\sqrt{2} \pi 3^{1/4}}{12 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed: 1/12\*2^(1/2)\*Pi/GAMMA(3/4)^4/exp(-1/2\*Pi)\*3^(1/4)

Value: 1.03948190377455748027007

Number of terms: 512

Offset: 0

Sequence: 1, 1, -2, 0, 1, -4, -2, -2, 2, 4, 0, 8, -1, 1, 6, -8, -4, 0, 6, -2, -6, -4, -  
2, 0, -7, 2, -2, 8, 4, -4, -2, 0, 4, 4, 8, -8, 10, -1, 0, 8,

1, 4, -4, 6, -6, 0, -8, -8, 2, -4, -18, -16, 0, 12, -2, 6, 18, -16, -2, 0, 5, -6, 12, 8,  
 -4, 4, 0, -2, -6, 12, 0, 8, -12

---

Sequence: A160832

Name: Expansion of eta(q)\*eta(q^2)\*eta(q^4), where eta(q) = Product((1-q^m), m=1..oo).

$$\frac{2^{1/4} \pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{7\pi}{24}}}$$

Printed: 1/4\*2^(1/4)\*Pi^(3/4)/GAMMA(3/4)^3/exp(-7/24\*Pi)

Value: .953128879795322238355592

Number of terms: 512

Offset: 0

Sequence: 1, -1, -2, 1, -1, 3, 3, -1, -1, -3, 2, -3, -2, 0, 0, 1, 2, 4, -3, 5, 3, -2, -  
 4, 0, -2, -1, 1, -2, 2, -6, -3, -1, 3, 4, 5, -3, 2, 2, 3, 4,  
 -7, 1, 4, -1, -3, 1, -4, 0, -4, 1, -2, 1, -2, -3, 1, -5, 0, 4, 1, 3, 5, 1, 4, -1, 7, -5, -  
 2, 0, 0, -1, -2, 6, 8, -5, -5, -4, -3, 0, -1, 0, -6, -1, -3,  
 3, -3, 6, -2, -6, 6, 1, -4, 6, 0, 5, 6, 7, -5, -4, 4, -5, 2, 4, 6, -4, -3

---

Sequence: A161361

Name: Convolution square root of A000521.

$$\frac{24 \sqrt{3}}{e^\pi}$$

Printed: 24/exp(Pi)\*3^(1/2)

Value: 1.79636884864757234281434

Number of terms: 428

Offset: 0

Sequence: 1, 372, 29250, -134120, 54261375, -6139293372, 854279148734, -  
 128813964933000, 20657907916144515, -3469030105750871000,  
 603760629237519966018, -108124880417607682194048,  
 19820541224206810447813500

---

Sequence: A161395

Name: a(n) = (n+1)\*A000521(n)/24.

$$\frac{72}{e^{2\pi}}$$

Printed: 72/exp(2\*Pi)

Value: .134455876682975194638976

Number of terms: 512  
Offset: -1

Sequence: 0, 31, 16407, 2686720, 144049995, 4217886720, 83300660150,  
1240173462528, 14885664690645, 150559082496000, 1323516762410175,  
10343388600230400, 73105955749759647, 473586598163128320,  
2842005898548916470

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Sequence: A161969  
Name: Expansion of  $f(q)^8$  in powers of  $q$  where  $f()$  is a Ramanujan theta function.

$$\frac{\pi^2}{4 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{3}}}$$

Printed:  $1/4 * \pi^2 / \text{GAMMA}(3/4)^8 / \exp(-1/3 * \pi)$   
Value: 1.38280680513481305837740  
Number of terms: 58  
Offset: 0

Sequence: 1, 8, 20, 0, -70, -64, 56, 0, -125, 160, 308, 0, 110, 0, -520, 0, 57, -  
560, 0, 0, 182, 512, -880, 0, 1190, 448, 884, 0, 0, 0, -1400, 0, -\  
1330, -1000, 1820, 0, -646, -1280, 0, 0, -1331, 2464, 380, 0, 1120, 0, 2576, 0,  
0, 880, 1748, 0, -3850, 0, -3400, 0, 2703

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Sequence: A164271  
Name: Expansion of  $(f(-q^2) * f(q^3) * f(-q^6) / f(q)^3)^2$  in powers of  $q$  where  $f()$  is a Ramanujan theta function.

$$\frac{\sqrt{3}}{18 e^{-\frac{2\pi}{3}}}$$

Printed:  $1/18 / \exp(-2/3 * \pi) * 3^{(1/2)}$   
Value: .781398113071504379322512  
Number of terms: 512  
Offset: 0

Sequence: 1, -6, 25, -84, 248, -666, 1662, -3912, 8774, -18894, 39289, -  
79248, 155612, -298338, 559812, -1030224, 1862647, -3313494, 5807096, -\  
10037796, 17129888, -28886052, 48170178, -79492824, 129900206, -  
210314976, 337545438, -537278124, 848509124

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Sequence: A169976  
Name: Expansion of  $(\psi(x)^{24} + \psi(-x)^{24}) / 2$  in powers of  $x^2$  where  $\psi()$

is a Ramanujan theta function.

$$\frac{9 \pi^6}{524288 \Gamma\left(\frac{3}{4}\right)^{24} e^{-3 \pi}}$$

Printed: 9/524288\*Pi^6/GAMMA(3/4)^24/exp(-3\*Pi)

Value: 1.55557085597088632106003

Number of terms: 512

Offset: 0

Sequence: 1, 276, 11178, 177400, 1612875, 10131156, 48897678, 193740408,  
658523925, 1980143600, 5386270686, 13477895856, 31425764410,  
68969957700,  
143635113000, 285718115112, 545796171084, 1005775268868,  
1794713445350, 3111031518000

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Sequence: A173763

Name: Expansion of (eta(q^2)^7 / eta(q^4)^2)^4 + 16 \* q \* (eta(q)^2 \* eta(q^2) \* eta(q^4)^2)^4 in powers of q.

$$\frac{3 \pi^5}{256 \Gamma\left(\frac{3}{4}\right)^{20} e^{-\pi}}$$

Printed: 3/256\*Pi^5/GAMMA(3/4)^20/exp(-Pi)

Value: 1.42341355441438002815191

Number of terms: 512

Offset: 1

Sequence: 1, 16, -156, 256, 870, -2496, -952, 4096, 4653, 13920, -56148, -  
39936, 178094, -15232, -135720, 65536, -247662, 74448, 315380, 222720,  
148512, -898368, 204504, -638976, -1196225, 2849504, 2344680, -243712, -  
3840450, -2171520, -1309408, 1048576, 8759088, -3962592, -828240,  
1191168,  
4307078

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Sequence: A178333

Name: Characteristic function of mountain numbers.

$$\frac{1}{e^{\pi}}$$

Printed: 1/exp(Pi)

Value: .432139182637722497744179e-1

Number of terms: 512

Offset: 0









Offset: 1

Sequence: 1, 6, 12, 12, 30, 72, 56, 24, 117, 180, 132, 144, 182, 336, 360, 48, 306, 702, 380, 360, 672, 792, 552, 288, 775, 1092, 1080, 672, 870, 2160, 992, 96, 1584, 1836, 1680, 1404, 1406, 2280, 2184, 720, 1722, 4032, 1892, 1584, 3510, 3312, 2256, 576, 2793, 4650

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Sequence: A185653

Name: Expansion of  $\exp(\sum_{n=1}^{\infty} -3 \cdot \sigma(2n) \cdot x^n/n)$  in powers of  $x$ .

$$\frac{2^{1/8} \pi^{3/2}}{4 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{8}}}$$

Printed:  $1/4 \cdot 2^{(1/8)} \cdot \pi^{(3/2)} / \text{GAMMA}(3/4)^6 / \exp(-1/8 \cdot \pi)$

Value: .663953765856039983111028

Number of terms: 512

Offset: 0

Sequence: 1, -9, 30, -39, 0, 18, 49, 0, -192, 110, 81, 78, -130, 0, -30, -121, 0, 210, 320, -270, 0, -407, 0, 192, 190, 0, 0, 0, 351, -210, -418, 0, -510, 448, 0, 462, 611, 0, -960, 50, 0, 0, -350, 0, 450, -361, -162, 960, 0, 0, 798, -782, 0, -1170, -290, -441, 702, 850, 0, 0, 576

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Sequence: A186690

Name: Expansion of  $-(1/8) \theta_3''(0, q) / \theta_3(0, q)$  in powers of  $q$ .

$$\frac{1}{8 \pi e^{-\pi}}$$

Printed:  $1/8 / \pi / \exp(-\pi)$

Value: .920738904769256552400564

Number of terms: 512

Offset: 1

Sequence: 1, -2, 4, -4, 6, -8, 8, -8, 13, -12, 12, -16, 14, -16, 24, -16, 18, -26, 20, -24, 32, -24, 24, -32, 31, -28, 40, -32, 30, -48, 32, -32, 48, -36, 48, -52, 38, -40, 56, -48, 42, -64, 44, -48, 78, -48, 48, -64, 57, -62, 72, -56, 54, -80, 72, -64, 80, -60, 60, -96, 62, -64

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Sequence: A187053

Name: Expansion of  $(\psi(x^2) / \psi(x))^3$  in powers of  $x$  where  $\psi()$  is a Ramanujan theta function.

$$\frac{2^{1/8}}{4 e^{-\frac{3\pi}{8}}}$$

Printed: 1/4/exp(-3/8\*Pi)\*2^(1/8)  
 Value: .885543482044588675504988  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -3, 9, -22, 48, -99, 194, -363, 657, -1155, 1977, -3312, 5443, -8787, 13968, -21894, 33873, -51795, 78345, -117312, 174033, -255945, 373353, -540486, 776848, -1109040, 1573209, -2218198, 3109713, -4335840, 6014123, -8300811, 11402928

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Sequence: A187076  
 Name: Coefficients of L-series for elliptic curve \144a1\;  $y^2 = x^3 - 1$ .

$$\frac{\pi}{2 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{6}}}$$

Printed: 1/2\*Pi/GAMMA(3/4)^4/exp(-1/6\*Pi)  
 Value: 1.17592806120732277488122  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 4, 2, -8, -5, 4, -10, -8, 9, 0, 14, 16, -10, 4, 0, 8, 14, -20, 2, 0, -11, -20, -32, 16, 0, 4, 14, -8, -9, -20, 26, 0, 2, 28, 0, 16, 16, 28, -22, 0, 14, -16, 0, -40, 0, 28, 26, -32, -17, 0, -32, 16, -22, 0, -10, -32, -34, 8, 14, 0, 45, 4, 38, -8, 0, 0, -34

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Sequence: A187149  
 Name: Expansion of  $\psi(-x)^4 * \chi(-x^2)^2$  in powers of x where  $\psi()$ ,  $\chi()$  are Ramanujan theta functions.

$$\frac{\pi 2^{3/4}}{8 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{3}}}$$

Printed: 1/8\*Pi/GAMMA(3/4)^4/exp(-1/3\*Pi)\*2^(3/4)  
 Value: .834621020404849697541670  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -4, 4, 0, 2, 0, -8, 0, -5, 16, 4, 0, -10, 0, -8, 0, 9, -8, 0, 0, 14, 0, 16, 0, -10, -32, 4, 0, 0, 0, 8, 0, 14, 20, -20, 0, 2, 0, 0, 0,

-11, 16, -20, 0, -32, 0, 16, 0, 0, 40, 4, 0, 14, 0, -8, 0, -9, -32, -20, 0, 26, 0, 0,  
 0, 2, -36, 28, 0, 0, 0, 16, 0, 16, 0, 28, 0, -22, 0, 0, 0, 14, -\  
 56, -16

---

Sequence: A187150

Name: Expansion of  $\psi(-x)^4 / \chi(-x)^2$  in powers of  $x$  where  $\psi()$ ,  $\chi()$  are Ramanujan theta functions.

$$\frac{\pi 2^{3/4}}{16 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{7\pi}{12}}}$$

Printed:  $1/16 * \pi / \text{GAMMA}(3/4)^4 / \exp(-7/12 * \pi) * 2^{(3/4)}$

Value: .915278816990281489147575

Number of terms: 512

Offset: 0

Sequence: 1, -2, 1, -2, 0, 4, 1, 2, -5, 0, -5, 4, 1, -2, -5, 0, 7, 4, 7, 0, -4, -10, 7,  
 -8, 0, 4, 0, -8, 2, 0, 1, -2, 0, 2, 0, 14, 7, 0, -5, 10, -\  
 11, -8, -10, -2, 0, 10, -4, 4, 0, 0, -5, -8, -11, 10, 0, 0, 14, -2, 20, 0, -11, 4, 13,  
 2, -5, -14, 0, -14, 13, 0, -11, -14, 8, -2, 0, 10, 13, -18, 0,  
 0, -5

---

Sequence: A189925

Name: Expansion of  $\theta_4 / \theta_3$  in powers of  $q$ .

$$\frac{2^{3/4}}{2}$$

Printed:  $1/2 * 2^{(3/4)}$

Value: .840896415253714543031125

Number of terms: 512

Offset: 0

Sequence: 1, -4, 8, -16, 32, -56, 96, -160, 256, -404, 624, -944, 1408, -2072,  
 3008, -4320, 6144, -8648, 12072, -16720, 22976, -31360, 42528, -\  
 57312, 76800, -102364, 135728, -179104, 235264, -307672, 400704, -519808,  
 671744, -864960, 1109904

---

Sequence: A192096

Name: Maximum number of tatami tilings of any  $m \times m$  square region with exactly  $n$  horizontal dimers and  $m$  monomers.

$$\frac{2^{3/4}}{e^{-\frac{\pi}{12}}}$$

Printed: 1/exp(-1/12\*Pi)\*2^(3/4)  
 Value: 2.18509602121714252767655  
 Number of terms: 512  
 Offset: 0

Sequence: 2, 4, 6, 12, 18, 28, 44, 64, 92, 132, 186, 256, 352, 476, 638, 852, 1124, 1472, 1920, 2484, 3196, 4096, 5216, 6612, 8350, 10496, 13140, 16396, 20380, 25244, 31178, 38380, 47104, 57660, 70380, 85684, 104068, 126080, 152396, 183808, 221208, 265664, 318432

-----

Sequence: A195861  
 Name: Expansion of (psi(x) / phi(x))^5 in powers of x where phi(), psi() are Ramanujan theta functions.

$$\frac{2^{7/8}}{16 e^{-\frac{5\pi}{8}}}$$

Printed: 1/16/exp(-5/8\*Pi)\*2^(7/8)  
 Value: .816613367312820950762619  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -5, 20, -65, 185, -481, 1165, -2665, 5820, -12220, 24802, -48880, 93865, -176125, 323685, -583798, 1035060, -1806600, 3108085, -5276305, 8846884, -14663645, 24044285, -39029560, 62755345, -100004806, 158022900, -247710570, 385366265

-----

Sequence: A204342  
 Name: a(n) = (-1)^n \* Sum\_{2\*m + 1 | 2\*n + 1} (-1)^m (2\*m + 1)^4.

$$\frac{3 \pi^{5/2} \sqrt{2}}{8 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\frac{\pi}{2}}}$$

Printed: 3/8\*Pi^(5/2)/GAMMA(3/4)^10/exp(-1/2\*Pi)\*2^(1/2)  
 Value: 5.84482038269313462361639  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 80, 626, 2400, 6481, 14640, 28562, 50080, 83522, 130320, 192000, 279840, 391251, 524960, 707282, 923520, 1171200, 1502400,

1874162,  
2284960, 2825762, 3418800, 4057106, 4879680, 5762401, 6681760, 7890482,  
9164640, 10425600

---

Sequence: A204372

Name: Expansion of  $\phi(x)^2 * (5 * \phi(-x)^8 + 64 * x * \psi(-x)^8)$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{9 \pi^{5/2}}{4 \Gamma\left(\frac{3}{4}\right)^{10}}$$

Printed:  $9/4 * \pi^{(5/2)} / \text{GAMMA}(3/4)^{10}$

Value: 5.15488813285755935764361

Number of terms: 512

Offset: 0

Sequence: 5, 4, 4, -320, 4, 2504, -320, -9600, 4, 25924, 2504, -58560, -320,  
114248, -9600, -200320, 4, 334088, 25924, -521280, 2504, 768000, -\58560,  
-1119360, -320, 1565004, 114248, -2099840, -9600, 2829128, -200320,  
-3694080, 4, 4684800

---

Sequence: A204386

Name: Expansion of  $(\theta_2(q))^8 + 4 * \theta_2(q^2)^8$  / 256 in powers of  $q^2$ .

$$\frac{9 \pi^2}{256 \Gamma\left(\frac{3}{4}\right)^8 e^{-\pi}}$$

Printed:  $9/256 * \pi^2 / \text{GAMMA}(3/4)^8 / \exp(-\pi)$

Value: 1.57909507669668574144176

Number of terms: 512

Offset: 1

Sequence: 1, 12, 28, 96, 126, 336, 344, 768, 757, 1512, 1332, 2688, 2198,  
4128, 3528, 6144, 4914, 9084, 6860, 12096, 9632, 15984, 12168, 21504,  
15751, 26376, 20440, 33024, 24390, 42336, 29792, 49152, 37296, 58968,  
43344, 72672, 50654, 82320, 61544, 96768

---

Sequence: A207541

Name: Expansion of  $\phi(q)^3 * \phi(-q)$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\pi 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed: 1/2\*Pi/GAMMA(3/4)^4\*2^(3/4)

Value: 1.17154019019007384610586

Number of terms: 512

Offset: 0

Sequence: 1, 4, 0, -16, -8, 24, 0, -32, 24, 52, 0, -48, -32, 56, 0, -96, 24, 72, 0, -80, -48, 128, 0, -96, 96, 124, 0, -160, -64, 120, 0, -128, 24, 192, 0, -192, -104, 152, 0, -224, 144, 168, 0, -176, -96, 312, 0, -192, 96, 228, 0, -288, -112, 216, 0, -288, 192, 320, 0

-----

Sequence: A208451

Name: Expansion of phi(q) \* phi(-q)^3 in powers of q where phi() is a Ramanujan theta function.

$$\frac{\pi 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed: 1/2\*Pi\*2^(1/4)/GAMMA(3/4)^4

Value: .828404012915978817688255

Number of terms: 512

Offset: 0

Sequence: 1, -4, 0, 16, -8, -24, 0, 32, 24, -52, 0, 48, -32, -56, 0, 96, 24, -72, 0, 80, -48, -128, 0, 96, 96, -124, 0, 160, -64, -120, 0, 128, 24, -192, 0, 192, -104, -152, 0, 224, 144, -168, 0, 176, -96, -312, 0, 192, 96, -228, 0, 288, -112, -216, 0, 288, 192, -320

-----

Sequence: A208845

Name: Expansion of f(x)^2 in powers of x where f() is a Ramanujan theta function.

$$\frac{\sqrt{\pi} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{12}}}$$

Printed: 1/2\*Pi^(1/2)/GAMMA(3/4)^2/exp(-1/12\*Pi)\*2^(1/2)

Value: 1.08440216765152345156496

Number of terms: 512

Offset: 0

Sequence: 1, 2, -1, -2, 1, -2, -2, 0, -2, 2, 1, 0, 0, -2, 3, 2, 2, 0, 0, 2, -2, 0, 0, 2,

-1, 0, 2, -2, -2, -2, 1, -2, 0, -2, -2, 2, 2, 0, -2, 0, -4  
, 0, 0, 0, 1, 2, 0, 0, 2, 0, 2, -2, 1, 2, 0, -2, 2, 0, 0, 2, 0, 2, 0, 2, 2, 0, -4, 0, 0, 2,  
-1, -2, 0, -2, 0, 0, 0, 2, 2

---

Sequence: A209676

Name: Expansion of  $f(x)^{12}$  in powers of  $x$  where  $f()$  is a Ramanujan theta function.

$$\frac{\pi^3}{8 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\frac{\pi}{2}}}$$

Printed:  $1/8*\pi^3/\text{GAMMA}(3/4)^{12}/\exp(-1/2*\pi)$

Value: 1.62608132538647290730041

Number of terms: 512

Offset: 0

Sequence: 1, 12, 54, 88, -99, -540, -418, 648, 594, -836, 1056, 4104, -209, -  
4104, -594, -4256, -6480, 4752, -298, -5016, 17226, 12100, -5346, 1296  
, -9063, 7128, 19494, -29160, -10032, 7668, -34738, -8712, -22572, -21812,  
49248, 46872, 67562, -2508, -47520, 76912

---

Sequence: A209941

Name: Expansion of  $f(x)^6$  in powers of  $x$  where  $f()$  is a Ramanujan theta function.

$$\frac{\sqrt{2} \pi^{3/2}}{4 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4*2^{(1/2)}*\pi^{(3/2)}/\text{GAMMA}(3/4)^6/\exp(-1/4*\pi)$

Value: 1.27517893857547416257955

Number of terms: 512

Offset: 0

Sequence: 1, 6, 9, -10, -30, 0, 11, -42, 0, 70, 18, 54, 49, -90, 0, 22, -60, 0, -  
110, 0, 81, -180, -78, 0, 130, 198, 0, 182, -30, -90, 121, -84, 0,  
0, 210, 0, -252, 102, -270, -170, 0, 0, -69, -330, 0, 38, 420, 0, -190, 390, 0,  
108, 0, 0, 0, 300, 99, -442, 210, 0, 418

---

Sequence: A209942

Name: Expansion of  $(\psi(-x) * \phi(x)^4)^2$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\sqrt{2} \pi^{5/2}}{4 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\frac{\pi}{4}}}$$

Printed: 1/4\*2^(1/2)\*Pi^(5/2)/GAMMA(3/4)^10/exp(-1/4\*Pi)

Value: 1.77658430827576095584414

Number of terms: 512

Offset: 0

Sequence: 1, 14, 81, 238, 322, 0, -429, -82, 0, -2162, -3038, 1134, 2401, -2482, 0, 6958, 3332, 0, 1442, 0, 6561, 4508, -9758, 0, -1918, -18802, 0, -9362, -24638, 19278, 14641, -14756, 0, 0, 6562, 0, -1148, 33998, 26082, 20398, 0, 0, 28083, -49042, 0, 64078, -30268, 0

Sequence: A212885

Name: Expansion of phi(q) \* phi(-q)^2 in powers of q where phi() is a Ramanujan theta function.

$$\frac{\pi^{3/4} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right)^3}$$

Printed: 1/2\*Pi^(3/4)\*2^(1/2)/GAMMA(3/4)^3

Value: .906767655167731220246590

Number of terms: 512

Offset: 0

Sequence: 1, -2, -4, 8, 6, -8, -8, 0, 12, -10, -8, 24, 8, -8, -16, 0, 6, -16, -12, 24, 24, -16, -8, 0, 24, -10, -24, 32, 0, -24, -16, 0, 12, -16, -16, 48, 30, -8, -24, 0, 24, -32, -16, 24, 24, -24, -16, 0, 8, -18, -28, 48, 24, -24, -32, 0, 48, -16, -8, 72, 0, -24, -32

Sequence: A213022

Name: Expansion of phi(x)^2 \* psi(x) in powers of x where phi(), psi() are Ramanujan theta functions.

$$\frac{\pi^{3/4} 2^{3/8}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{8}}}$$

Printed: 1/2\*Pi^(3/4)/GAMMA(3/4)^3/exp(-1/8\*Pi)\*2^(3/8)

Value: 1.23144300178919027612552

Number of terms: 512

Offset: 0

Sequence: 1, 5, 8, 5, 8, 16, 9, 8, 16, 8, 17, 24, 8, 16, 16, 13, 24, 16, 16, 24, 32, 13, 8, 32, 8, 24, 40, 16, 25, 24, 24, 24, 32, 16, 16, 40, 17, 32, 32, 16, 40, 48, 16, 16, 32, 21, 48, 32, 16, 24, 40, 32, 24, 56, 24, 45, 40, 16, 32, 24, 32, 40, 48, 16, 32, 64, 25, 24

---

Sequence: A213384

Name: Expansion of  $\phi(-q)^3$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\pi^{3/4} 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^3}$$

Printed:  $1/2 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 * 2^{(1/4)}$

Value: .762497670698561548055225

Number of terms: 512

Offset: 0

Sequence: 1, -6, 12, -8, 6, -24, 24, 0, 12, -30, 24, -24, 8, -24, 48, 0, 6, -48, 36, -24, 24, -48, 24, 0, 24, -30, 72, -32, 0, -72, 48, 0, 12, -48, 48, -48, 30, -24, 72, 0, 24, -96, 48, -24, 24, -72, 48, 0, 8, -54, 84, -48, 24, -72, 96, 0, 48, -48, 24, -72, 0, -72, 96

---

Sequence: A213419

Name: Expansion of  $q * \chi(-q) / \chi(-q^{25})$  in powers of  $q$  where  $\chi()$  is a Ramanujan theta function.

$$\frac{2^{3/8}}{e^{12} \pi}$$

Printed:  $1/\exp(1/12 * \pi) * 2^{(3/8)}$

Value: .998132550768018763137000

Number of terms: 512

Offset: 1

Sequence: 1, -1, 0, -1, 1, -1, 1, -1, 2, -2, 2, -2, 3, -3, 3, -4, 5, -5, 5, -6, 7, -8, 8, -9, 11, -11, 11, -14, 15, -16, 17, -19, 22, -23, 24, -27, 31, -32, 34, -38, 42, -44, 47, -52, 57, -61, 64, -70, 78, -82, 87, -96, 103, -110, 117, -127, 138, -146, 155, -168, 182

---

Sequence: A213598

Name: Number of partitions of  $n$  in which no parts are multiples of 49.

$$\frac{2^{3/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{24}}}$$

Printed:  $2^{(3/8)}/\pi^{(1/4)}*\text{GAMMA}(3/4)/\exp(1/24*\pi)$   
 Value: 1.04720947004604213021980  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 77, 101, 135, 176, 231, 297, 385, 490, 627, 792, 1002, 1255, 1575, 1958, 2436, 3010, 3718, 4565, 5604, 6842, 8349, 10143, 12310, 14883, 17977, 21637, 26015, 31185, 37338, 44583, 53174, 63261, 75175, 89134, 105558, 124754, 147273, 173524  
 -----

Sequence: A213791  
 Name: Expansion of  $\psi(-x)^6$  in powers of  $x$  where  $\psi()$  is a Ramanujan theta function.

$$\frac{\pi^{3/2} \sqrt{2}}{32 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{3\pi}{4}}}$$

Printed:  $1/32*\pi^{(3/2)}/\text{GAMMA}(3/4)^6/\exp(-3/4*\pi)*2^{(1/2)}$   
 Value: .766777430087590497655197  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -6, 15, -26, 45, -66, 82, -120, 156, -170, 231, -276, 290, -390, 435, -438, 561, -630, 651, -780, 861, -842, 1020, -1170, 1095, -1326, 1431, -1370, 1716, -1740, 1682, -2016, 2145, -2132, 2415, -2550, 2353, -2850, 3120, -2810, 3321, -3486, 3285, -3906, 4005  
 -----

Sequence: A215472  
 Name: Expansion of  $(\psi(x) * \phi(-x)^4)^2$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\pi^{5/2} 2^{3/4}}{16 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\frac{\pi}{4}}}$$

Printed:  $1/16*\pi^{(5/2)}/\text{GAMMA}(3/4)^{10}/\exp(-1/4*\pi)*2^{(3/4)}$   
 Value: .528181674950930628790282  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -14, 81, -238, 322, 0, -429, 82, 0, 2162, -3038, -1134, 2401, 2482, 0, -6958, 3332, 0, 1442, 0, 6561, -4508, -9758, 0, -1918, 18802, 0, 9362, -24638, -19278, 14641, 14756, 0, 0, 6562, 0, -1148, -33998, 26082, -20398, 0, 0, 28083, 49042, 0, -64078, -30268

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Sequence: A215596

Name: Expansion of  $\psi(-x) * f(-x^4)^3$  in powers of x where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi 2^{5/8}}{16 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{5\pi}{8}}}$$

Printed:  $1/16 * \pi / \Gamma(3/4)^4 / \exp(-5/8 * \pi) * 2^{(5/8)}$

Value: .956695379653418889599025

Number of terms: 512

Offset: 0

Sequence: 1, -1, 0, -1, -3, 3, 1, 3, 0, 0, -2, 0, 5, -5, -3, -6, 0, 0, 5, 3, 0, -1, 5, 0, -7, 10, 0, 2, 1, 0, -7, 0, -3, -5, -7, 0, 1, 0, 0, 7, 11, -9, 0, -9, 0, 6, 9, 0, 5, 3, 9, 0, -7, 0, 0, -10, 0, -5, 0, 3, -18, 2, 0, 11, 0, 0, -10, -5, 9, 7, -14, 0, 0, 0, 0, 11, 9

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Sequence: A215597

Name: Expansion of  $\psi(-x) * f(-x)^3$  in powers of x where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{2^{1/8} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4 * 2^{(1/8)} * \pi / \Gamma(3/4)^4 / \exp(-1/4 * \pi)$

Value: .833062408021299264753472

Number of terms: 512

Offset: 0

Sequence: 1, -4, 3, 4, -2, 0, -11, 4, 0, 12, 10, -12, -7, -4, 0, -12, 16, 0, 6, 0, 9, 8, -10, 0, -18, -20, 0, 20, -14, 12, 11, 24, 0, 0, -22, 0, 16, -20, -6, -12, 0, 0, -3, 4, 0, -20, 48, 0, 14, 28, 0, -40, 0, 0, 0, -8, -33, -4, -26, 0, 30, 28, 0, 0, 2, 12, -16, 20, 0

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Sequence: A215598

Name: Expansion of  $\phi(-x^2) * f(x)^3$  in powers of x where  $\phi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi 2^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{8}}}$$

Printed: 1/2\*Pi/GAMMA(3/4)^4/exp(-1/8\*Pi)\*2^(1/8)  
 Value: 1.12502063626294987736425  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 3, -2, -11, 0, 10, -7, 0, 16, 6, 9, -10, -18, 0, -14, 11, 0, -22, 16, -6, 0, -3, 0, 48, 14, 0, 0, 0, -33, -26, 30, 0, 2, -16, 0, -10, -13, 0, -48, 26, 0, 0, 18, 0, 34, 19, 30, -16, 0, 0, -2, -6, 0, 22, -34, -21, 14, 42, 0, 0, -48, 0, 0, -80, 0, -22, -23, 0

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Sequence: A215600  
 Name: Expansion of  $\psi(-x)^2 * f(-x)^6$  in powers of x where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi^2 2^{1/4}}{16 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{2}}}$$

Printed: 1/16\*Pi^2/GAMMA(3/4)^8/exp(-1/2\*Pi)\*2^(1/4)  
 Value: .693992975658245697568769  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -8, 22, -16, -27, 40, -18, 80, -94, -40, 0, -48, 359, -80, -130, -320, 0, 160, 214, 400, -230, -152, -594, 416, -343, 240, 518, -400, 0, 200, 830, -592, -396, -776, 0, -400, 1098, 200, 0, 1120, 729, -552, -2068, 272, -1670, 800, 0, 400, 594, 1480, 598, 48

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Sequence: A215601  
 Name: Expansion of  $\phi(-x)^2 * f(-x)^6 + 32 * x * \psi(-x)^2 * f(-x^4)^6$  in powers of x where  $\phi()$ ,  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{3 \pi^2 2^{1/4}}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{4}}}$$

Printed: 3/8\*Pi^2/GAMMA(3/4)^8/exp(-1/4\*Pi)\*2^(1/4)  
 Value: 1.89850714802623885890907  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 22, -27, -18, -94, 0, 359, -130, 0, 214, -230, -594, -343, 518, 0, 830, -396, 0, 1098, 0, 729, -2068, -1670, 0, 594, 598, 0, -1746, 2002, 486, -1331, 5148, 0, 0, -1606, 0, -2860, -3514, 2538, 286, 0, 0, -1873, -4082, 0, 3942, 4708, 0, 5362, 1174, 0, -5060

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Sequence: A216711

Name: Expansion of  $q * (\text{phi}(q) * \text{psi}(-q))^8$  in powers of  $q$  where  $\text{phi}()$ ,  $\text{psi}()$  are Ramanujan theta functions.

$$\frac{\pi^4}{64 \Gamma\left(\frac{3}{4}\right)^{16} e^{-\pi}}$$

Printed:  $1/64 * \pi^4 / \text{GAMMA}(3/4)^{16} / \exp(-\pi)$

Value: 1.36224475023362762070477

Number of terms: 512

Offset: 1

Sequence: 1, 8, 12, -64, -210, 96, 1016, 512, -2043, -1680, 1092, -768, 1382, 8128, -2520, -4096, 14706, -16344, -39940, 13440, 12192, 8736, 68712, 6144, -34025, 11056, -50760, -65024, -102570, -20160, 227552, 32768, 13104, 117648, -213360, 130752, 160526, -319520

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Sequence: A224916

Name: Expansion of  $\text{chi}(x)^2 / \text{chi}(-x^2)^6$  in powers of  $x$  where  $\text{chi}()$  is a Ramanujan theta function.

$$\frac{2^{1/4}}{4 e^{-\frac{5\pi}{12}}}$$

Printed:  $1/4 / \exp(-5/12 * \pi) * 2^{(1/4)}$

Value: 1.10074736630700073124306

Number of terms: 512

Offset: 0

Sequence: 1, 2, 7, 14, 31, 58, 112, 196, 347, 580, 966, 1554, 2485, 3872, 5993, 9102, 13719, 20384, 30068, 43836, 63481, 91048, 129763, 183448, 257839, 359862, 499583, 689312, 946416, 1292388, 1756838, 2376598, 3201557, 4293942, 5736736, 7633702, 10121408, 13370634

---

Sequence: A225543

Name: G.f.:  $\text{Product}_{\{k:0\}} (1 - x^k)^4 * (1 - (-x)^k)^8$ .

$$\frac{\pi^3 \sqrt{2}}{16 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\frac{\pi}{2}}}$$

Printed: 1/16\*Pi^3/GAMMA(3/4)^12/exp(-1/2\*Pi)\*2^(1/2)

Value: 1.14981313194158388415020

Number of terms: 512

Offset: 0

Sequence: 1, 4, -10, -56, 29, 332, 30, -1064, -302, 1940, 288, -1960, 1071, 1192, -1938, -736, -2000, -1488, 5014, 7288, 4170, -10644, -8482, 11184, -12647, -15544, 15590, 9992, 25424, 4604, -26610, 2472, -28972, 3140, 26464, -39416, 31338, 24764, -25248, -16176

Sequence: A225564

Name: Expansion of  $\psi(-x)^2 * f(-x^4)^6$  in powers of x where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi^2 2^{1/4}}{128 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{5\pi}{4}}}$$

Printed: 1/128\*Pi^2/GAMMA(3/4)^8/exp(-5/4\*Pi)\*2^(1/4)

Value: .915266049450199305888359

Number of terms: 512

Offset: 0

Sequence: 1, -2, 1, -2, -4, 12, -3, 10, -3, -20, -7, -8, 29, -10, 25, -28, -12, 54, 20, 34, -74, -42, -80, 22, 53, 40, -43, 16, 73, -50, 114, -38, -20, -68, 104, -100, -47, 114, -47, -24, -100, -68, -151, 50, 137, 244, -40, 326, -23, -194, -30, 50, -100, -160, 6, -274

Sequence: A225853

Name: Expansion of  $\phi(x) / f(-x^4)$  in powers of x where  $\phi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{2^{7/8}}{e^{\frac{\pi}{6}}}$$

Printed: 1/exp(1/6\*Pi)\*2^(7/8)

Value: 1.08643860000986803403621

Number of terms: 512

Offset: 0

Sequence: 1, 2, 0, 0, 3, 2, 0, 0, 4, 6, 0, 0, 7, 8, 0, 0, 13, 14, 0, 0, 19, 20, 0, 0, 29, 34, 0, 0, 43, 46, 0, 0, 62, 70, 0, 0, 90, 96, 0, 0, 126, 138, 0, 0, 174, 186, 0, 0, 239, 262, 0, 0, 325, 346, 0, 0, 435, 472, 0, 0, 580, 620, 0, 0, 769, 826, 0, 0, 1007, 1072, 0

---

Sequence: A225872

Name: Expansion of  $k(q)^3 * k'(q)^2 * (K(q) / (\pi/2))^6 / 64$  in powers of  $q$  where  $k()$ ,  $k'()$ ,  $K()$  are Jacobi elliptic functions.

$$\frac{\pi^3 \sqrt{2}}{512 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\frac{\pi}{2}}}$$

Printed:  $1/512 * \pi^3 / \text{GAMMA}(3/4)^{12} / \exp(-1/2 * \pi) * 2^{(1/2)}$

Value: .359316603731744963796938e-1

Number of terms: 512

Offset: 0

Sequence: 0, 1, -4, 2, 8, -13, 28, -26, -56, 69, -48, 134, 80, -182, -84, -312, 280, 204, 332, 142, -816, 91, -196, 780, -224, -526, -244, -1198, 2216, 767, 508, -390, -400, -1167, -1424, 466, -2264, 1391, 1392, 3796, -1480, -11, 1768, -2274, 1320, -1508, -1984, -8450

---

Sequence: A225912

Name: Expansion of  $q * (\text{phi}(-q^2) * \text{psi}(-q)^2)^4$  in powers of  $q$  where  $\text{phi}()$ ,  $\text{psi}()$  are Ramanujan theta functions.

$$\frac{\pi^3 \sqrt{2}}{128 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed:  $1/128 * \pi^3 / \text{GAMMA}(3/4)^{12} * 2^{(1/2)}$

Value: .298778333438198954047198e-1

Number of terms: 512

Offset: 0

Sequence: 0, 1, -8, 20, 0, -74, 96, -24, 0, 157, -432, 124, 0, 478, 704, -1480, 0, -1198, 792, 3044, 0, -480, -4320, 184, 0, 2351, 3344, -1720, 0, -3282, 5184, -5728, 0, 2480, -4752, 1776, 0, 10326, -6688, 9560, 0, -8886, -8448, -9188, 0, -11618, 32832, 23664, 0, -16231

---

Sequence: A225915

Name: Expansion of  $(k(q) / 4)^4$  in powers of  $q$  where  $k()$  is a Jacobi elliptic function.

$$\frac{1}{1024 e^{-2 \pi}}$$

Printed: 1/1024/exp(-2\*Pi)  
 Value: .522941069848403062991254  
 Number of terms: 512  
 Offset: 2

Sequence: 1, -16, 152, -1088, 6444, -33184, 153152, -646528, 2533070, -  
 9311664, 32387616, -107299904, 340436664, -1039026144, 3061896704, -\ 8739810688,  
 24229115109, -65390485328, 172155210320, -442928464640,  
 1115433685796, -2753362613984, 6670224790272, -15876957230848  
 -----

Sequence: A225923  
 Name: Expansion of  $q^{(-1/2)} * k(q) * (1 - k(q)^4) * (K(q) / (\pi/2))^6 / 4$  in powers of q where k(), k'(), K() are Jacobi elliptic functions.

$$\frac{3 \pi^3 \sqrt{2}}{32 \Gamma\left(\frac{3}{4}\right)^{12} e^{-\frac{\pi}{2}}}$$

Printed: 3/32\*Pi^3/GAMMA(3/4)^12/exp(-1/2\*Pi)\*2^(1/2)  
 Value: 1.72471969791237582622530  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 20, -74, -24, 157, 124, 478, -1480, -1198, 3044, -480, 184, 2351,  
 -1720, -3282, -5728, 2480, 1776, 10326, 9560, -8886, -9188, -11618,  
 23664, -16231, -23960, 11686, -9176, 60880, 16876, -18482, -3768, -35372, -  
 15532, 3680, -31960, -4886, 47020, -2976, 44560  
 -----

Sequence: A226086  
 Name: Expansion of  $(2 * \eta(q^2)^{24} - \eta(q)^{16} * \eta(q^4)^8)^3 / (\eta(q)^4 * \eta(q^2) * \eta(q^4)^6)^4$  in powers of q.

$$\frac{27 \pi^7}{1024 \Gamma\left(\frac{3}{4}\right)^{28} e^{-\pi}}$$

Printed: 27/1024\*Pi^7/GAMMA(3/4)^28/exp(-Pi)  
 Value: 6.21645789860628518387986  
 Number of terms: 512  
 Offset: 1

Sequence: 1, 64, 1236, 4096, -57450, 79104, 64232, 262144, -66627, -  
 3676800, 2464572, 5062656, 8032766, 4110848, -71008200, 16777216,

71112402, -\  
 4264128, 136337060, -235315200, 79390752, 157732608, -1186563144,  
 324009984, 2079799375, 514097024, -2052934200, 263094272

---

Sequence: A226132

Name: Expansion of  $-c(-q) * c(q^2) / 9$  in powers of  $q$  where  $c()$  is a cubic AGM theta function.

$$\frac{\pi \sqrt{2} 3^{3/4}}{108 \Gamma\left(\frac{3}{4}\right)^4 e^{-\pi}}$$

Printed:  $1/108 * \text{Pi} / \text{GAMMA}(3/4)^4 / \exp(-\text{Pi}) * 2^{(1/2)} * 3^{(3/4)}$

Value: .962328234287177179549676

Number of terms: 512

Offset: 1

Sequence: 1, -1, 3, -1, 6, -3, 8, -1, 9, -6, 12, -3, 14, -8, 18, -1, 18, -9, 20, -6,  
 24, -12, 24, -3, 31, -14, 27, -8, 30, -18, 32, -1, 36, -18, 48  
 , -9, 38, -20, 42, -6, 42, -24, 44, -12, 54, -24, 48, -3, 57, -31, 54, -14, 54, -27,  
 72, -8, 60, -30, 60, -18, 62, -32, 72

---

Sequence: A226139

Name: Expansion of  $b(-q) * b(q^2)$  in powers of  $q$  where  $b()$  is a cubic AGM theta function.

$$\frac{\pi \sqrt{2} 3^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed:  $1/4 * \text{Pi} * 2^{(1/2)} * 3^{(3/4)} / \text{GAMMA}(3/4)^4$

Value: 1.12282128880397135463338

Number of terms: 512

Offset: 0

Sequence: 1, 3, -3, -15, -3, 18, 15, 24, -3, -69, -18, 36, 15, 42, -24, -90, -3,  
 54, 69, 60, -18, -120, -36, 72, 15, 93, -42, -231, -24, 90, 90, 96  
 , -3, -180, -54, 144, 69, 114, -60, -210, -18, 126, 120, 132, -36, -414, -72,  
 144, 15, 171, -93, -270, -42, 162, 231, 216

---

Sequence: A226252

Name: Number of ways of writing  $n$  as the sum of 7 triangular numbers.

$$\frac{\pi^{7/4} 2^{5/8}}{32 \Gamma\left(\frac{3}{4}\right)^7 e^{-\frac{7\pi}{8}}}$$

Printed: 1/32\*Pi^(7/4)/GAMMA(3/4)^7/exp(-7/8\*Pi)\*2^(5/8)

Value: 1.34539183418583977402679

Number of terms: 512

Offset: 0

Sequence: 1, 7, 21, 42, 77, 126, 175, 253, 357, 434, 567, 735, 833, 1057, 1302, 1400, 1708, 2037, 2191, 2597, 3003, 3151, 3619, 4242, 4389, 4935, 5691, 5740, 6594, 7434, 7371, 8400, 9303, 9506, 10626, 11592, 11585, 12761, 14427, 14203, 15519, 17241, 16808, 18788, 20559, 19950, 21882, 23898, 23786

Sequence: A226253

Name: Number of ways of writing n as the sum of 9 triangular numbers.

$$\frac{\pi^{9/4} 2^{3/8}}{64 \Gamma\left(\frac{3}{4}\right)^9 e^{-\frac{9\pi}{8}}}$$

Printed: 1/64\*Pi^(9/4)/GAMMA(3/4)^9/exp(-9/8\*Pi)\*2^(3/8)

Value: 1.46441013757015320974753

Number of terms: 512

Offset: 0

Sequence: 1, 9, 36, 93, 198, 378, 633, 990, 1521, 2173, 2979, 4113, 5370, 6858, 8955, 11055, 13446, 16830, 20031, 23724, 28836, 33381, 38520, 45729, 52203, 59121, 68922, 77461, 86283, 99747, 110547, 121500, 138870, 152034, 166725, 188568, 204156, 221760, 248310, 268713, 289422, 321786, 345570, 369036

Sequence: A226254

Name: Number of ways of writing n as the sum of 10 triangular numbers from A000217.

$$\frac{\pi^{5/2} 2^{3/4}}{128 \Gamma\left(\frac{3}{4}\right)^{10} e^{-\frac{5\pi}{4}}}$$

Printed: 1/128\*Pi^(5/2)/GAMMA(3/4)^10/exp(-5/4\*Pi)\*2^(3/4)

Value: 1.52781122428825187148421

Number of terms: 512  
Offset: 0

Sequence: 1, 10, 45, 130, 300, 612, 1105, 1830, 2925, 4420, 6341, 9000,  
12325, 16290, 21645, 27932, 34980, 44370, 54900, 66430, 81702, 98050,  
115440, 138330, 162565, 187800, 220545, 254800, 289265, 334890, 382058,  
427350, 488700, 550420, 609960, 691812, 770185, 845750, 949365, 1049400,  
1145580, 1274580

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Sequence: A226255  
Name: Number of ways of writing n as the sum of 11 triangular numbers.

$$\frac{\pi^{11/4} 2^{1/8}}{128 \Gamma\left(\frac{3}{4}\right)^{11} e^{-\frac{11\pi}{8}}}$$

Printed: 1/128\*Pi^(11/4)/GAMMA(3/4)^11/exp(-11/8\*Pi)\*2^(1/8)  
Value: 1.59395723723562781528193  
Number of terms: 512  
Offset: 0

Sequence: 1, 11, 55, 176, 440, 957, 1848, 3245, 5412, 8580, 12892, 18888,  
26895, 36916, 50160, 66935, 86658, 111870, 142582, 177320, 221100,  
272690  
, 329065, 399102, 480040, 566808, 672969, 793760, 920326, 1074040,  
1248412, 1425974, 1640595, 1882145, 2123385, 2418339, 2743928, 3062895,  
3453978,  
3880855

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Sequence: A227033  
Name: Expansion of (phi(x) / f(-x^4))^2 in powers of x where phi(), f() are  
Ramanujan theta functions.

$$\frac{2 2^{3/4}}{e^{\frac{\pi}{3}}}$$

Printed: 2/exp(1/3\*Pi)\*2^(3/4)  
Value: 1.18034883159140202616621  
Number of terms: 512  
Offset: 0

Sequence: 1, 4, 4, 0, 6, 16, 8, 0, 17, 40, 28, 0, 38, 96, 56, 0, 84, 204, 124, 0,  
172, 400, 232, 0, 325, 760, 448, 0, 594, 1376, 784, 0, 1049, 2404  
, 1388, 0, 1796, 4096, 2320, 0, 3005, 6808, 3864, 0, 4912, 11072, 6216, 0,  
7877, 17688, 9940, 0, 12430, 27792, 15488, 0

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Sequence: A227175

Name: Expansion of  $(\phi(x) / f(-x^4))^4$  in powers of  $x$  where  $\phi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{8 \sqrt{2}}{e^{\frac{2\pi}{3}}}$$

Printed:  $8/\exp(2/3*\text{Pi})*2^{(1/2)}$

Value: 1.39322336423918794182237

Number of terms: 512

Offset: 0

Sequence: 1, 8, 24, 32, 28, 80, 192, 192, 134, 408, 864, 800, 568, 1520, 3072, 2752, 1809, 4808, 9456, 8192, 5316, 13616, 26112, 22144, 13990, 35376, 66624, 55584, 34696, 86016, 159744, 131392, 80724, 198256, 363720, 295776, 180068, 436816, 793344, 638976, 384940

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Sequence: A227317

Name: Expansion of  $\psi(x)^6 * \phi(-x)^2$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\pi^2 2^{3/4}}{32 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{3\pi}{4}}}$$

Printed:  $1/32*\text{Pi}^2/\text{GAMMA}(3/4)^8/\exp(-3/4*\text{Pi})*2^{(3/4)}$

Value: 1.07630204472751371150592

Number of terms: 512

Offset: 0

Sequence: 1, 2, -5, -10, 5, 6, 10, 40, -20, -50, 19, -52, -30, 50, -25, 74, 97, 50, -25, -140, 69, -34, -100, -50, -185, -6, 83, 310, -60, -60, 410, -128, 145, -100, -245, 250, -87, -90, -400, -410, -151, 362, 185, -50, 285, 30, 150, -240, 500, 370, -68, 222, 5, -190

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Sequence: A227695

Name: Expansion of  $\psi(x)^2 * \phi(-x)^6$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\pi^2 2^{1/4}}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{4}}}$$

Printed:  $1/8 * \pi^2 / \Gamma(3/4)^8 / \exp(-1/4 * \pi) * 2^{(1/4)}$   
Value: .632835716008746286303024  
Number of terms: 512  
Offset: 0

Sequence: 1, -10, 37, -50, -30, 128, -25, -34, -320, 310, 410, -370, -87, -410, 320, 30, 500, 384, -630, -640, -359, 300, -326, 2560, -110, -1098, -1280, -370, 1490, -1850, 269, 1500, 1216, 640, 570, -3328, 340, -2010, -1110, 1790, 768, 3200, 303, 750, -1600, -442

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Sequence: A228745  
Name: Expansion of  $(\phi(q)^4 + 7 * \phi(-q)^4) / 8$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{9 \pi}{16 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed:  $9/16 * \pi / \Gamma(3/4)^4$   
Value: .783677210448193233291135  
Number of terms: 512  
Offset: 0

Sequence: 1, -6, 24, -24, 24, -36, 96, -48, 24, -78, 144, -72, 96, -84, 192, -144, 24, -108, 312, -120, 144, -192, 288, -144, 96, -186, 336, -240, 192, -180, 576, -192, 24, -288, 432, -288, 312, -228, 480, -336, 144, -252, 768, -264, 288, -468, 576, -288, 96, -342, 744

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Sequence: A228746  
Name: Expansion of  $8 * \phi(q)^4 - 7 * \phi(-q)^4$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{9 \pi}{2 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed:  $9/2 * \pi / \Gamma(3/4)^4$   
Value: 6.26941768358554586632908  
Number of terms: 512  
Offset: 0

Sequence: 1, 120, 24, 480, 24, 720, 96, 960, 24, 1560, 144, 1440, 96, 1680, 192, 2880, 24, 2160, 312, 2400, 144, 3840, 288, 2880, 96, 3720, 336, 4800, 192, 3600, 576, 3840, 24, 5760, 432, 5760, 312, 4560, 480, 6720, 144, 5040, 768, 5280, 288, 9360, 576, 5760, 96, 6840

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Sequence: A228831

Name: Expansion of  $\psi(x)^2 * \theta(-x^2)^4$  in powers of  $x$  where  $\theta()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{2^{1/4} \pi^{3/2}}{4 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4*2^{(1/4)}*\pi^{(3/2)}/\text{GAMMA}(3/4)^6/\exp(-1/4*\pi)$   
 Value: 1.07229339825515287192186  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, -7, -14, 18, 32, -21, -14, 16, -30, -14, -14, -15, 66, 48, 82, -28, -160, 66, -32, -95, 36, -30, 128, -14, -94, 64, 18, 98, 98, 105, -92, -112, -96, -206, -64, -28, 226, -126, -46, 320, 32, 27, -142, 208, -30, -60, 64, -206, 322, -16, -28, -48, -224

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Sequence: A228834  
 Name: Expansion of  $\theta(-x^2)^2 * \psi(-x)^4$  in powers of  $x$  where  $\theta()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\pi^{3/2} 2^{3/4}}{16 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{2}}}$$

Printed:  $1/16*\pi^{(3/2)}/\text{GAMMA}(3/4)^6/\exp(-1/2*\pi)*2^{(3/4)}$   
 Value: .831500906760022629026794  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -4, 2, 8, -7, 4, -14, -8, 18, 12, 32, -40, -21, -8, -14, 32, 16, 16, -30, 56, -14, -28, -14, -16, -15, -72, 66, 8, 48, 52, 82, -56, -28, -4, -160, -56, 66, 84, -32, 16, -95, 140, 36, 56, -30, -112, 128, 24, -14, -28, -94, -152, 64, -156, 18, 120, 98, -80

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Sequence: A229894  
 Name: Expansion of  $q^2 * \eta(q) / \eta(q^49)$  in powers of  $q$ .

$$\frac{\pi^{1/4} 2^{5/8}}{2 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{24}}}$$

Printed:  $1/2*\pi^{(1/4)}/\text{GAMMA}(3/4)/\exp(-1/24*\pi)*2^{(5/8)}$   
 Value: .954918789987674103751225  
 Number of terms: 512

Offset: 0

Sequence: 1, -1, -1, 0, 0, 1, 0, 1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 0, 0, 0, 1, 0, 0,  
0, 1, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, -1, 0, 0, 0,  
0, 0, 0, 0, 0, 1, -1, 0, 0, 0, 1, 0, 1, 1, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 0, 0, -1, 1, 0,  
0, 0, 1, 0, -1, 0, 0, 0, 0, 0

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Sequence: A230057

Name: Expansion of  $(3 * \phi(q^3)^4 - \phi(q)^4) / 2$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\pi \sqrt{3}}{3 \Gamma\left(\frac{3}{4}\right)^4}$$

Printed:  $1/3 * \pi * 3^{(1/2)} / \text{GAMMA}(3/4)^4$

Value: .804366663840069980380893

Number of terms: 512

Offset: 0

Sequence: 1, -4, -12, -4, -12, -24, -12, -32, -12, -4, -72, -48, -12, -56, -96, -  
24, -12, -72, -12, -80, -72, -32, -144, -96, -12, -124, -168, -4,  
-96, -120, -72, -128, -12, -48, -216, -192, -12, -152, -240, -56, -72, -168, -96,  
-176, -144, -24, -288, -192, -12, -228

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Sequence: A230278

Name: Expansion of  $q^{(-2/3)} * \eta(q^2)^{10} / \eta(q)^4$  in powers of  $q$ .

$$\frac{\pi^{3/2} \sqrt{2}}{16 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{2\pi}{3}}}$$

Printed:  $1/16 * \pi^{(3/2)} / \text{GAMMA}(3/4)^6 / \exp(-2/3 * \pi) * 2^{(1/2)}$

Value: 1.18032413403774337706676

Number of terms: 512

Offset: 0

Sequence: 1, 4, 4, 0, 0, -8, -16, 0, -10, -20, 16, 0, 0, 40, 0, 0, 39, 28, 0, 0, 0, -  
40, 32, 0, -70, 0, -64, 0, 0, -80, 0, 0, 49, -20, -40, 0, 0,  
112, 80, 0, -22, 56, 64, 0, 0, 88, 0, 0, 110, -140, 0, 0, 0, 0, -160, 0, -128, 52,  
0, 0, 0, -280, 0, 0, -130, 28, 156, 0, 0

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Sequence: A230280

Name: Expansion of  $q^{(-1/3)} * \eta(q)^4 * \eta(q^2)^2$  in powers of  $q$ .

$$\frac{\pi^{3/2} \sqrt{2}}{8 \Gamma\left(\frac{3}{4}\right)^6 e^{-\frac{\pi}{3}}}$$

Printed: 1/8\*Pi^(3/2)/GAMMA(3/4)^6/exp(-1/3\*Pi)\*2^(1/2)

Value: .828398235049099614781321

Number of terms: 512

Offset: 0

Sequence: 1, -4, 0, 16, -10, -16, 0, 0, 39, 0, 0, -32, -70, 64, 0, 0, 49, 40, 0, -80, -22, -64, 0, 0, 110, 0, 0, 160, -128, 0, 0, 0, -130, -156, 0, 112, 182, 0, 0, 0, 121, 0, 0, -160, 0, -128, 0, 0, -320, 280, 0, 0, 170, 256, 0, 0, -69, 0, 0, -320, 38, 0, 0, 0, -190

Sequence: A230442

Name: Expansion of  $q^{(-1/6)} * \eta(q)^2 * \eta(q^2)$  in powers of  $q$ .

$$\frac{2^{3/4} \pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{6}}}$$

Printed: 1/4\*2^(3/4)\*Pi^(3/4)/GAMMA(3/4)^3/exp(-1/6\*Pi)

Value: .910163850660472899657075

Number of terms: 512

Offset: 0

Sequence: 1, -2, -2, 4, 1, 2, -2, -4, -1, -4, 6, 0, 0, 6, 4, -4, -4, 2, -6, 0, -5, 2, 0, 0, 4, 2, 6, 4, -1, -6, 2, 0, 4, -6, -8, -8, 8, -2, -6, 8, -4, 4, 4, 4, -2, -2, 8, -1, 4, -4, 0, -4, -8, -6, 0, 0, 0, 6, -8, -3, -2, 6, -4, 8, 12, -2, -4, 4, 0, 10, 4, -4, -2, 0, -8, -4, -2, 4, 4, -12, 2, -4, 0, -12, 4, -4

Sequence: A232166

Name: Expansion of  $\phi(x) / \psi(x^2)^2$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{4 \Gamma\left(\frac{3}{4}\right) \sqrt{2}}{\pi^{1/4} e^{\frac{\pi}{2}}}$$

Printed: 4/Pi^(1/4)\*GAMMA(3/4)/exp(1/2\*Pi)\*2^(1/2)

Value: 1.08238842563339134119767

Number of terms: 512

Offset: 0

Sequence: 1, 2, -2, -4, 5, 6, -10, -12, 17, 24, -30, -40, 50, 62, -80, -100, 127, 160, -196, -244, 296, 360, -442, -532, 649, 786, -940, -1132, 1347, 1600, -1910, -2260, 2682, 3176, -3734, -4400, 5157, 6032, -7066, -8240, 9616, 11202, -13002, -15096, 17469, 20192

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Sequence: A232506

Name: Expansion of  $(\eta(q) * \eta(q^{23}))^2$  in powers of  $q$ .

$$\frac{\sqrt{\pi}}{2 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{6}}}$$

Printed:  $1/2 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/6 * \pi)$

Value: .996261640231258979442900

Number of terms: 512

Offset: 2

Sequence: 1, -2, -1, 2, 1, 2, -2, 0, -2, -2, 1, 0, 0, 2, 3, -2, 2, 0, 0, -2, -2, 0, 0, -4, 3, 2, -2, 0, -6, 6, 1, 6, 4, 0, -2, -2, -2, -6, 2, -4, -4, 0, 4, 4, 1, -2, 3, 4, 3, -6, -3, 4, -1, -4, -2, 4, -3, 4, 4, -8, -3, 4, -2, 6, 2, 2, -2, -2, 4, 2, -4, -4, 2, -2, 2, -8

---

Sequence: A239052

Name: Sum of divisors of  $4 * n - 2$ .

$$\frac{3 \sqrt{2} \pi}{8 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{2}}}$$

Printed:  $3/8 * 2^{(1/2)} * \pi / \text{GAMMA}(3/4)^4 / \exp(-1/2 * \pi)$

Value: 3.55425950284633633580110

Number of terms: 512

Offset: 1

Sequence: 3, 12, 18, 24, 39, 36, 42, 72, 54, 60, 96, 72, 93, 120, 90, 96, 144, 144, 114, 168, 126, 132, 234, 144, 171, 216, 162, 216, 240, 180, 186, 312, 252, 204, 288, 216, 222, 372, 288, 240, 363, 252, 324, 360, 270, 336, 384, 360, 294, 468, 306, 312, 576

---

Sequence: A239053

Name: Sum of divisors of  $4 * n - 1$ .



, 4096, 4884, 5080, 5376, 6144, 6424, 6776, 7776, 8096, 8188, 9492, 9856,  
10112, 11664, 11704, 11952, 13824, 14100, 14360

---

Sequence: A244276

Name: Expansion of  $q^{-1/4} * \eta(q)^8 * \eta(q^4)^2 / \eta(q^2)^5$  in powers of  $q$ .

$$\frac{\pi^{5/4} 2^{3/4}}{8 \Gamma\left(\frac{3}{4}\right)^5 e^{-\frac{\pi}{4}}}$$

Printed:  $1/8 * \pi^{5/4} / \text{GAMMA}(3/4)^5 / \exp(-1/4 * \pi) * 2^{3/4}$

Value: .697902833655536811577629

Number of terms: 512

Offset: 0

Sequence: 1, -8, 25, -40, 48, -80, 121, -120, 144, -200, 192, -248, 337, -280,  
336, -440, 384, -480, 528, -480, 673, -720, 624, -720, 816, -760,  
864, -1080, 864, -1000, 1321, -1008, 1200, -1360, 1152, -1440, 1536, -1400,  
1488, -1720, 1536, -1760, 2185, -1560, 1872

---

Sequence: A245643

Name: Expansion of  $\eta(q)^6 * \eta(q^2) / \eta(q^4)^2$  in powers of  $q$ .

$$\frac{\pi^{5/4}}{2 \Gamma\left(\frac{3}{4}\right)^5}$$

Printed:  $1/2 * \pi^{5/4} / \text{GAMMA}(3/4)^5$

Value: .756812624164848596027335

Number of terms: 512

Offset: 0

Sequence: 1, -6, 8, 16, -38, -16, 48, 64, -56, -150, 112, 112, -112, -80, 160,  
192, -294, -288, 248, 304, -272, -160, 368, 320, -336, -726, 400,  
448, -448, -240, 544, 640, -568, -864, 736, 608, -950, -400, 656, 832, -784, -  
1152, 864, 1008, -784, -496, 1184, 896, -1136

---

Sequence: A246584

Name: Number of overcubic partitions of  $n$ .

$$\frac{2^{3/8} \Gamma\left(\frac{3}{4}\right)^2}{\sqrt{\pi}}$$

Printed:  $1/\text{Pi}^{(1/2)}*2^{(3/8)}*\text{GAMMA}(3/4)^2$   
 Value: 1.09869943957873192786653  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 2, 6, 12, 26, 48, 92, 160, 282, 470, 784, 1260, 2020, 3152, 4896, 7456, 11290, 16836, 24962, 36556, 53232, 76736, 110012, 156384, 221156, 310482, 433776, 602200, 832224, 1143696, 1565088, 2131072, 2890266, 3902344, 5249356, 7032576, 9389022, 12488368

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Sequence: A246953  
 Name: Expansion of  $\text{phi}(-x) * \text{psi}(x^2)^2$  in powers of x where  $\text{phi}()$ ,  $\text{psi}()$  are Ramanujan theta functions.

$$\frac{\pi^{3/4} 2^{1/4}}{8 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{2}}}$$

Printed:  $1/8*\text{Pi}^{(3/4)}/\text{GAMMA}(3/4)^3/\text{exp}(-1/2*\text{Pi})*2^{(1/4)}$   
 Value: .916994449483549378540154  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -2, 2, -4, 3, -2, 6, -4, 4, -6, 4, -4, 7, -8, 2, -8, 8, -4, 10, -4, 4, -10, 10, -8, 9, -4, 6, -12, 8, -6, 10, -12, 4, -14, 8, -4, 16, -10, 8, -8, 9, -10, 12, -12, 8, -12, 12, -4, 20, -10, 6, -20, 8, -6, 10, -12, 8, -20, 18, -8, 11, -12, 12, -16, 8, -6, 20

---

Sequence: A246954  
 Name: Expansion of  $\text{phi}(-x) * \text{psi}(-x)^2$  in powers of x where  $\text{phi}()$ ,  $\text{psi}()$  are Ramanujan theta functions.

$$\frac{2^{1/4} \pi^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{4}}}$$

Printed:  $1/4*2^{(1/4)}*\text{Pi}^{(3/4)}/\text{GAMMA}(3/4)^3/\text{exp}(-1/4*\text{Pi})$   
 Value: .836185464938679836806495  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -4, 5, -4, 8, -8, 5, -12, 8, -4, 16, -12, 9, -12, 8, -12, 16, -16, 8, -16, 17, -8, 24, -8, 8, -28, 16, -12, 16, -20, 13, -24, 24, -8, 16, -16, 16, -28, 24, -12, 32, -16, 13, -28, 8, -20, 32, -32, 8, -20, 24, -16, 40, -16, 16, -32, 25, -20, 24, -24, 24, -28

---

Sequence: A253183

Name: Expansion of  $(q^3 * \psi(q) * \psi(q^{23}))^2$  in powers of  $q$  where  $\psi()$  is a Ramanujan theta function.

$$\frac{\sqrt{\pi} \sqrt{2}}{8 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{2}}}$$

Printed:  $1/8 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/2 * \pi) * 2^{(1/2)}$

Value: 1.00373838585491969959590

Number of terms: 512

Offset: 6

Sequence: 1, 2, 1, 2, 2, 0, 3, 2, 0, 2, 2, 2, 1, 2, 0, 2, 4, 0, 2, 0, 1, 4, 2, 2, 6, 4,  
4, 6, 2, 8, 5, 4, 4, 4, 6, 2, 8, 2, 6, 10, 0, 4, 3, 4, 8, 6  
, 5, 6, 7, 4, 6, 8, 7, 4, 8, 6, 5, 8, 3, 10, 6, 8, 8, 0, 4, 8, 9, 6, 6, 12, 8, 8, 11, 8,  
10, 8, 9, 4, 14, 12, 10, 12, 8, 8

-----

Sequence: A253185

Name: Expansion of  $(\phi(-q) * \phi(-q^{23}))^2$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\sqrt{\pi} 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^2}$$

Printed:  $1/2 * \pi^{(1/2)} * 2^{(3/4)} / \text{GAMMA}(3/4)^2$

Value: .992544178491057419477005

Number of terms: 512

Offset: 0

Sequence: 1, -4, 4, 0, 4, -8, 0, 0, 4, -4, 8, 0, 0, -8, 0, 0, 4, -8, 4, 0, 8, 0, 0, -4,  
16, -28, 8, -16, 32, -8, 0, -16, 20, -32, 8, 0, 36, -8, 0,  
-16, 40, -24, 0, -32, 0, -8, 4, -16, 64, -36, 28, -32, 40, -8, 16, -32, 32, -32, 8, -  
48, 32, -8, 16, -64, 52, -16, 32, 0

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Sequence: A254525

Name: Expansion of  $f(-x^2)^2 * f(-x, x^2) / f(x^3)^3$  in powers of  $x$  where  $f()$  is Ramanujan's general theta function.

$$\frac{\sqrt{2} 3^{3/4}}{2 e^{\frac{\pi}{6}}}$$

Printed:  $1/2 / \exp(1/6 * \pi) * 2^{(1/2)} * 3^{(3/4)}$

Value: .954838417284789672519515  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -1, -1, -1, 0, 3, 4, -1, -6, -5, 1, 10, 11, -4, -19, -17, 4, 31, 31, -9,  
 -50, -46, 11, 79, 77, -21, -122, -112, 28, 183, 173, -46, -\n  
 273, -249, 62, 396, 370, -98, -573, -521, 130, 815, 751, -193, -1149, -1041,  
 261, 1599, 1461, -373, -2214, -1998, 498, 3031

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Sequence: A255252  
 Name: Expansion of  $\psi(x) * \psi(-x)^2$  in powers of  $x$  where  $\psi()$  is a Ramanujan theta function.

$$\frac{\pi^{3/4} 2^{7/8}}{8 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{3\pi}{8}}}$$

Printed:  $1/8 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-3/8 * \pi) * 2^{(7/8)}$   
 Value: .954912129718574758016471  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -1, -1, 0, -2, 3, 2, 1, -1, -1, 1, -2, 1, -3, -2, -2, 3, 1, -1, 4, 3, -1, -  
 1, 2, -4, 4, 1, 0, -1, -2, -3, -3, -4, 2, 3, -3, 0, 0, 5, 2  
 , 0, -3, 2, -1, 4, 1, 0, 1, 3, 0, -2, 2, -1, -2, -4, -5, 2, 0, -7, 3, -4, 3, 1, 5, 2, -5, -  
 1, -1, -3, 4, -1, 3, 4, 1, 4

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Sequence: A255257  
 Name: Expansion of  $\psi(x) * \phi(-x^2)^2$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\pi^{3/4} 2^{1/8}}{2 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{\pi}{8}}}$$

Printed:  $1/2 * \pi^{(3/4)} / \text{GAMMA}(3/4)^3 / \exp(-1/8 * \pi) * 2^{(1/8)}$   
 Value: 1.03551600579380368741463  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, -4, -3, 4, 0, 1, 4, 0, 4, -3, -4, -4, -8, 8, 1, -4, 0, 0, 4, 0, 5, 4, 8,  
 -4, -4, 4, -8, -3, -4, 4, -4, 0, 0, -8, 4, 1, 0, -8, 0, 4,  
 8, 8, 8, 0, 1, 0, -8, 8, -4, -4, -8, 12, 4, -12, 1, -4, 0, 0, -4, -8, 4, -8, 0, 0, -8, 1,  
 12, 8, 8, 0, -8, 8, 0, 8, 4, 0

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Sequence: A255318

Name: Expansion of  $\psi(x^3) * f(x^2, x^4)$  in powers of  $x$  where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{2^{7/8} \sqrt{\pi} 3^{1/4}}{12 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{11\pi}{24}}}$$

Printed:  $1/12 * 2^{(7/8)} * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-11/24 * \pi) * 3^{(1/4)}$

Value: 1.00195178057533813186895

Number of terms: 512

Offset: 0

Sequence: 1, 0, 1, 1, 1, 1, 0, 1, 0, 1, 1, 1, 0, 2, 1, 0, 0, 1, 1, 1, 1, 0, 1, 1, 1, 0,  
 0, 1, 1, 0, 2, 0, 2, 2, 1, 0, 0, 0, 0, 1, 1, 0, 1, 0, 2, 1,  
 0, 2, 1, 1, 0, 0, 1, 1, 1, 2, 0, 0, 0, 1, 1, 1, 1, 1, 0, 1, 0, 1, 0, 1, 2, 0, 0, 2, 1, 1,  
 0, 1, 0, 1, 1, 0, 1, 1, 1, 0, 1

Sequence: A256538

Name: Expansion of  $\eta(q) * \eta(q^{47})$  in powers of  $q$ .

$$\frac{\pi^{1/4} 2^{5/8}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{24}}}$$

Printed:  $1/2 * \pi^{(1/4)} / \text{GAMMA}(3/4) / \exp(-1/24 * \pi) * 2^{(5/8)}$

Value: .954918789987674103751225

Number of terms: 512

Offset: 2

Sequence: 1, -1, -1, 0, 0, 1, 0, 1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 0, 0, 0, 1, 0, 0,  
 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, -1, 0, 0, 0,  
 0, 0, 0, -1, 1, 1, 0, 1, -1, 0, -1, 0, 0, 1, 0, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, -1, -1, 0, 0,  
 -1, 0, 0, 0, -1, 0, 0, 0, 0

Sequence: A256552

Name: Expansion of the unique weight  $11/2$   $\Gamma_1(4)$  cusp form in powers of  $q$ .

$$\frac{\pi^{11/4}}{64 \Gamma\left(\frac{3}{4}\right)^{11} e^{-\pi}}$$

Printed:  $1/64 * \pi^{(11/4)} / \text{GAMMA}(3/4)^{11} / \exp(-\pi)$

Value: .899988125684927834121264

Number of terms: 512

Offset: 1

Sequence: 1, -2, -8, 16, 20, -36, 0, -32, -75, 220, 104, -128, -44, -392, 0, 256, 232, 474, -536, 320, 168, -1124, 0, -576, 245, 852, 1248, 0, -\ 1668, 2040, 0, -512, -1368, -2632, -560, -1200, 4756, 1428, 0, 3520, 656, -3528, -3224, 1664, -4740, 2168, 0, -2048, 1449

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Sequence: A258747

Name: Expansion of  $\chi(-x) * f(x^3) * f(-x^6)$  in powers of  $x$  where  $\chi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\sqrt{\pi} 2^{3/8} 3^{1/4}}{6 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{\pi}{3}}}$$

Printed:  $1/6 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-1/3 * \pi) * 2^{(3/8)} * 3^{(1/4)}$

Value: .956785918584693149971095

Number of terms: 512

Offset: 0

Sequence: 1, -1, 0, 0, 0, -1, -2, 2, 1, 0, 0, 2, 0, 0, -2, 0, 1, 0, 0, 0, 0, -1, -2, 0, 2, -2, 0, 2, 0, -2, 0, 0, 2, -1, 0, 0, 0, 0, 0, 2, 3, 0, 0, 0, 0, -2, -2, 0, 0, 0, 0, 0, 0, 0, -2, 2, 1, -2, 0, 2, 0, 0, -4, 0, 2, -1, 0, 0, 0, 0, -2, 2, 0, 0, 0, 2, 0, 0, 0, 2

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Sequence: A258771

Name: Expansion of  $\psi(-x) * \phi(x)^4$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{\pi^{5/4} 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^5 e^{-\frac{\pi}{8}}}$$

Printed:  $1/2 * \pi^{(5/4)} / \text{GAMMA}(3/4)^5 / \exp(-1/8 * \pi) * 2^{(1/4)}$

Value: 1.33288570713162085277983

Number of terms: 512

Offset: 0

Sequence: 1, 7, 16, 7, -16, 0, 17, -48, -64, 16, 1, -16, 16, -32, 32, 55, -48, 64, 64, 16, 128, -9, -80, -32, 16, 48, -80, 96, 49, -144, -16, -144, -64, -64, -96, 144, 33, -64, -160, 0, 112, 32, 32, -96, 128, -25, 0, 32, -160, 304, 144, 96, 144, -48, 48, 119, 16, -256

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Sequence: A258779

Name: Expansion of  $(f(-x) * \phi(x))^2$  in powers of x where  $\phi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi 2^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{12}}}$$

Printed:  $1/2 * \pi / \text{GAMMA}(3/4)^4 / \exp(-1/12 * \pi) * 2^{(1/4)}$

Value: 1.07631705864560326480350

Number of terms: 512

Offset: 0

Sequence: 1, 2, -5, -10, 9, 14, -10, 0, 14, 2, -11, -32, 0, 14, -9, 26, 2, 0, 16, -22, 14, 0, 0, 26, -17, -32, -22, -10, -34, 14, 45, 38, 0, -34, 38, -22, 2, 0, -10, 64, -20, 0, 0, 0, -23, -46, 16, 0, -46, -32, 26, -10, 25, 18, 0, 38, 50, 0, 0, -22, -80, 50, 0, 26, 2

Sequence: A258831

Name: Expansion of  $(\psi(-x^3) * f(-x, x^2))^2$  in powers of x where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi \sqrt{3}}{36 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{5\pi}{6}}}$$

Printed:  $1/36 * \pi / \text{GAMMA}(3/4)^4 / \exp(-5/6 * \pi) * 3^{(1/2)}$

Value: .918867968135234524218667

Number of terms: 512

Offset: 0

Sequence: 1, -2, 3, -4, 5, -8, 7, -8, 9, -10, 14, -12, 16, -14, 15, -20, 17, -18, 19, -24, 26, -22, 23, -28, 25, -32, 32, -28, 29, -30, 38, -32, 33, -40, 40, -44, 42, -38, 39, -40, 57, -42, 43, -44, 45, -62, 47, -56, 49, -56, 62, -52, 53, -60, 64, -68, 64, -58, 59, -60

Sequence: A258832

Name: Expansion of  $\psi(-x^3) * f(-x, x^2)$  in powers of x where  $\psi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\sqrt{\pi} 3^{1/4}}{6 \Gamma\left(\frac{3}{4}\right)^2 e^{-\frac{5\pi}{12}}}$$

Printed:  $1/6 * \pi^{(1/2)} / \text{GAMMA}(3/4)^2 / \exp(-5/12 * \pi) * 3^{(1/4)}$

Value: .958576010619520210940220

Number of terms: 512  
Offset: 0

Sequence: 1, -1, 1, -1, 1, -2, 0, -1, 1, -1, 2, -1, 1, 0, 1, -2, 1, 0, 2, -1, 1, -1, 1,  
-1, 1, -2, 1, 0, 0, -1, 2, -2, 1, -1, 0, -3, 0, -1, 1, 0, 2  
, 0, 1, -1, 2, -2, 1, -1, 0, -1, 1, -1, 2, -1, 1, 0, 1, -2, 1, 0, 3, 0, 0, -1, 1, -2, 1, -  
1, 1, -1, 3, -1, 0, -1, 0, -2, 0

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Sequence: A260313  
Name: Expansion of  $\phi(x)^2 / \psi(x)$  in powers of  $x$  where  $\phi()$ ,  $\psi()$  are Ramanujan theta functions.

$$\frac{2^{5/8} \pi^{1/4}}{\Gamma\left(\frac{3}{4}\right) e^{\frac{\pi}{8}}}$$

Printed:  $2^{5/8} \pi^{1/4} / \text{GAMMA}(3/4) / \exp(1/8 \pi)$   
Value: 1.13135884296833927233064  
Number of terms: 512  
Offset: 0

Sequence: 1, 3, 1, -2, 3, 4, -3, -3, 2, 7, 0, -9, 4, 9, -5, -11, 6, 18, -7, -18, 9, 20,  
-12, -27, 14, 36, -11, -42, 18, 46, -24, -54, 23, 69, -27,  
-79, 37, 90, -44, -104, 48, 126, -52, -147, 65, 162, -78, -189, 85, 225, -91, -  
254, 114, 286, -136, -327, 142, 381, -159

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Sequence: A260314  
Name: Expansion of  $\phi(x)^2 / \phi(-x^2)$  in powers of  $x$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\pi^{1/4} 2^{1/8}}{\Gamma\left(\frac{3}{4}\right)}$$

Printed:  $\pi^{1/4} 2^{1/8} / \text{GAMMA}(3/4)$   
Value: 1.18476556266483177058072  
Number of terms: 512  
Offset: 0

Sequence: 1, 4, 6, 8, 16, 24, 32, 48, 66, 92, 128, 168, 224, 296, 384, 496, 640,  
816, 1030, 1304, 1632, 2032, 2528, 3120, 3840, 4716, 5760, 7008,  
8512, 10296, 12416, 14944, 17922, 21440, 25600, 30480, 36208, 42936,  
50784, 59952, 70656, 83088, 97536, 114312, 133728

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Sequence: A261325  
Name: Expansion of  $f(x^3, x^3) * f(x, x^5) / f(x, x)^2$  in powers of  $x$  where  $f(,)$

is Ramanujan's general theta function.

$$\frac{\sqrt{2} 3^{1/4}}{6 e^{-\frac{\pi}{3}}}$$

Printed: 1/6/exp(-1/3\*Pi)\*2^(1/2)\*3^(1/4)

Value: .883967257918246867530377

Number of terms: 512

Offset: 0

Sequence: 1, -3, 8, -18, 38, -75, 140, -252, 439, -744, 1232, -1998, 3182, -4986, 7700, -11736, 17673, -26322, 38808, -56682, 82070, -117867, 167996, -237744, 334202, -466836, 648224, -895014, 1229148, -1679436, 2283568, -3090672, 4164578, -5587941, 7467464, -9940482

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Sequence: A261444

Name: Expansion of  $f(x^3)^2 * f(-x^6)^2 / f(-x^2)$  in powers of x where f() is a Ramanujan theta function.

$$\frac{\pi^{3/4} \sqrt{3}}{18 \Gamma\left(\frac{3}{4}\right)^3 e^{-\frac{2\pi}{3}}}$$

Printed: 1/18\*Pi^(3/4)/GAMMA(3/4)^3/exp(-2/3\*Pi)\*3^(1/2)

Value: 1.00203611900507340065198

Number of terms: 512

Offset: 0

Sequence: 1, 0, 1, 2, 2, 2, 0, 4, 2, 0, 1, 4, 4, 2, 2, 4, 5, 0, 2, 2, 6, 4, 2, 4, 6, 0, 0, 6, 4, 2, 4, 8, 7, 0, 2, 10, 4, 6, 0, 4, 6, 0, 1, 6, 8, 6, 4, 8, 4, 0, 4, 8, 10, 4, 2, 8, 8, 0, 2, 6, 12, 4, 4, 8, 8, 0, 5, 8, 6, 4, 0, 8, 14, 0, 2, 10, 8, 10, 2, 8, 11, 0, 6, 6, 6

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Sequence: A263526

Name: Expansion of  $f(x, x)^2 / (f(x^3, x^3) * f(x, x^5))$  in powers of x where f(, ) is Ramanujan's general theta function.

$$\frac{\sqrt{2} 3^{3/4}}{e^{\frac{\pi}{3}}}$$

Printed: 1/exp(1/3\*Pi)\*2^(1/2)\*3^(3/4)

Value: 1.13126361982570664915926

Number of terms: 512

Offset: 0

Sequence: 1, 3, 1, -3, -1, 0, 1, 6, 0, -6, -3, -3, 4, 12, 1, -12, -6, -3, 5, 24, 1, -24, -10, -6, 11, 42, 4, -42, -19, -12, 17, 72, 4, -69, -31, -18, 31, 120, 9, -114, -50, -30, 46, 189, 11, -180, -79, -48, 77, 294, 21, -276, -122, -72, 112, 450, 28, -420, -183, -108

---

Sequence: A266575

Name: Expansion of  $q * f(-q^4)^6 / \phi(-q)$  in powers of  $q$  where  $\phi()$ ,  $f()$  are Ramanujan theta functions.

$$\frac{\pi^{5/4}}{32 \Gamma\left(\frac{3}{4}\right)^5 e^{-\pi}}$$

Printed:  $1/32 * \pi^{(5/4)} / \text{GAMMA}(3/4)^5 / \exp(-\pi)$

Value: 1.09457301977536610504009

Number of terms: 512

Offset: 1

Sequence: 1, 2, 4, 8, 8, 12, 16, 16, 25, 28, 28, 32, 40, 40, 48, 64, 48, 62, 76, 64, 80, 92, 80, 96, 121, 100, 112, 128, 120, 136, 160, 128, 144, 184, 152, 200, 200, 164, 208, 224, 192, 216, 252, 224, 248, 296, 224, 256, 337, 262, 312, 320, 280, 336, 368, 320, 336, 396

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Sequence: A273225

Name: Number of bipartitions of  $n$  wherein odd parts are distinct (and even parts are unrestricted).

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^2 \sqrt{2}}{\sqrt{\pi} e^{\frac{\pi}{4}}}$$

Printed:  $2/\pi^{(1/2)} * \text{GAMMA}(3/4)^2 / \exp(1/4 * \pi) * 2^{(1/2)}$

Value: 1.09255563085291432444252

Number of terms: 512

Offset: 0

Sequence: 1, 2, 3, 6, 11, 18, 28, 44, 69, 104, 152, 222, 323, 460, 645, 902, 1254, 1722, 2343, 3174, 4278, 5722, 7601, 10056, 13250, 17358, 22623, 29382, 38021, 48984, 62857, 80404, 102528, 130282, 165002, 208398, 262495, 329666, 412878, 515840

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Sequence: A273226

Name: G.f. is the cube of the g.f. of A006950.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^3 2^{1/4}}{\pi^{3/4} e^{\frac{3\pi}{8}}}$$

Printed: 4/Pi^(3/4)\*GAMMA(3/4)^3/exp(3/8\*Pi)\*2^(1/4)

Value: 1.14199798989530557105606

Number of terms: 512

Offset: 0

Sequence: 1, 3, 6, 13, 27, 51, 91, 159, 273, 455, 738, 1179, 1860, 2886, 4410, 6667, 9981, 14781, 21671, 31512, 45474, 65113, 92547, 130689, 183439, 255930, 355017, 489895, 672672, 919152, 1250107, 1692846, 2282895, 3066180, 4102224, 5468160, 7263217, 9614436, 12684633, 16682276

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Sequence: A273228

Name: G.f. is the fourth power of the g.f. of A006950.

$$\frac{8 \Gamma\left(\frac{3}{4}\right)^4}{\pi e^{\frac{\pi}{2}}}$$

Printed: 8/Pi\*GAMMA(3/4)^4/exp(1/2\*Pi)

Value: 1.19367780650840959488210

Number of terms: 512

Offset: 0

Sequence: 1, 4, 10, 24, 55, 116, 230, 440, 819, 1480, 2602, 4480, 7580, 12604, 20620, 33272, 53029, 83520, 130088, 200600, 306488, 464168, 697150, 1039032, 1537435, 2259300, 3298428, 4785880, 6903657, 9903040, 14129846, 20058488, 28336790, 39845456, 55778050, 77747328, 107924347, 149221160

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Sequence: A274327

Name: Expansion of Product\_{n=1} (1 - x^(4\*n))/(1 - x^n)^4 in powers of x.

$$\frac{2^{5/8} \Gamma\left(\frac{3}{4}\right)^3}{\pi^{3/4}}$$

Printed: 1/Pi^(3/4)\*2^(5/8)\*GAMMA(3/4)^3

Value: 1.20263192720911371562841

Number of terms: 512

Offset: 0

Sequence: 1, 4, 14, 40, 104, 248, 560, 1200, 2474, 4924, 9520, 17928, 33008, 59528, 105408, 183536, 314744, 532208, 888382, 1465208, 2389808, 3857456, 6166096, 9766576, 15336816, 23888844, 36924656, 56659296, 86341664, 130710104, 196640576, 294059872, 437232746, 646561792

---

Sequence: A274621

Name: Coefficients in the expansion  $\text{Product}_{\{n:=1\}} (1-q^{(2n-1)})^2/(1-q^{(2n)})^2$ .

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^2 2^{1/4}}{\sqrt{\pi} e^{\frac{\pi}{4}}}$$

Printed:  $2/\text{Pi}^{(1/2)}*\text{GAMMA}(3/4)^2/\text{exp}(1/4*\text{Pi})*2^{(1/4)}$

Value: .918726113449476300343788

Number of terms: 512

Offset: 0

Sequence: 1, -2, 3, -6, 11, -18, 28, -44, 69, -104, 152, -222, 323, -460, 645, -902, 1254, -1722, 2343, -3174, 4278, -5722, 7601, -10056, 13250, -17358, 22623, -29382, 38021, -48984, 62857, -80404, 102528, -130282, 165002, -208398, 262495, -329666, 412878, -515840, 642941, -799362, 991478

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Sequence: A274719

Name: Expansion of  $\text{Product}_{\{k:=1\}} (1-q^{(2*k)})$ .

$$\frac{\pi^{1/4} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right) e^{-\frac{\pi}{12}}}$$

Printed:  $1/2*\text{Pi}^{(1/4)}/\text{GAMMA}(3/4)/\text{exp}(-1/12*\text{Pi})*2^{(1/2)}$

Value: .998129069925958513279955

Number of terms: 104

Offset: 0

Sequence: 1, 0, -1, 0, -1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, -1, 0, 1

---

Sequence: A276285

Name: Number of ways of writing n as a sum of 13 squares.

$$\frac{\pi^{13/4}}{\Gamma\left(\frac{3}{4}\right)^{13}}$$

Printed: Pi^(13/4)/GAMMA(3/4)^13  
 Value: 2.93797262575917782497394  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 26, 312, 2288, 11466, 41808, 116688, 265408, 535704, 1031914,  
 1899664, 3214224, 5043376, 7801744, 12066912, 17689152, 24443978,  
 34039200, 48210760, 64966096, 83323344, 109157152, 145532816,  
 185245632, 227110416, 284788010, 363737712

---

Sequence: A276286  
 Name: Number of ways of writing n as a sum of 14 squares.

$$\frac{\pi^{7/2}}{\Gamma\left(\frac{3}{4}\right)^{14}}$$

Printed: Pi^(7/2)/GAMMA(3/4)^14  
 Value: 3.19191573501653919946831  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 28, 364, 2912, 16044, 64792, 200928, 503360, 1089452,  
 2186940, 4196920, 7544992, 12547808, 19975256, 31553344, 48484800,  
 70439852,  
 99602104, 142487436, 200569824, 268594872, 354052608, 476105504,  
 630908096, 800698080, 1008274932, 1296257144

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Sequence: A276287  
 Name: Number of ways of writing n as a sum of 15 squares.

$$\frac{\pi^{15/4}}{\Gamma\left(\frac{3}{4}\right)^{15}}$$

Printed: Pi^(15/4)/GAMMA(3/4)^15  
 Value: 3.46780836898148105517648  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 30, 420, 3640, 21870, 96936, 331240, 911040, 2128260,



$$\frac{\Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{-\frac{\pi}{24}}}$$

Printed: 1/Pi^(1/4)\*GAMMA(3/4)/exp(-1/24\*Pi)  
 Value: 1.04916873940265834699185  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1, 3, 4, 8, 11, 20, 27, 44, 60, 92, 124, 183, 244, 348, 461, 640, 840, 1144, 1488, 1992, 2572, 3393, 4348, 5668, 7212, 9301, 11760, 15024, 18880, 23924, 29892, 37596, 46728, 58376, 72193, 89644, 110340, 136248, 166968, 205115, 250316, 306056, 372032, 452876

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Sequence: A280021  
 Name: Expansion of phi\_{11, 2}(x) where phi\_{r, s}(x) = Sum\_{n, m:0} m^r \* n^s \* x^{m\*n}.

$$\frac{9 \pi^5}{2048 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 9/2048\*Pi^5/GAMMA(3/4)^24  
 Value: .102294157311697450186603e-1  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, 2052, 177156, 4202512, 48828150, 363524112, 1977326792, 8606744640, 31382654013, 100195363800, 285311670732, 744500215872, 1792160394206, 4057474577184, 8650199741400, 17626613022976, 34271896307922, 64397206034676, 116490258898580, 205200886312800

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Sequence: A280024  
 Name: Coefficients in q-expansion of E\_2^4 \* E\_4, where E\_2 and E\_4 are respectively the Eisenstein series A006352 and A004009.

$$\frac{243}{4 \pi^2 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed: 243/4/Pi^2/GAMMA(3/4)^8  
 Value: 1.21053171754373959172819  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 144, -17712, 524736, -2279088, -79760160, 71126208,

7093116288, 65399933520, 370698709968, 1592500629600, 5659924638528,  
17465468914368, 48233085519456, 121766302456704, 285303917520000,  
627654170451024, 1308136029869088, 2601247015228176

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Sequence: A281374

Name: Coefficients in q-expansion of  $E_2^2$ , where  $E_2$  is the Eisenstein series shown in A006352.

$$\frac{9}{\pi^2}$$

Printed:  $9/\pi^2$

Value: .911890652781039942994920

Number of terms: 512

Offset: 0

Sequence: 1, -48, 432, 3264, 9456, 21600, 39744, 66432, 105840, 147984,  
220320, 281664, 393792, 475104, 646272, 743040, 980592, 1091232,  
1432944,  
1536960, 1965600, 2118144, 2649024, 2761344, 3516480, 3557040, 4433184,  
4594560, 5575296, 5603040, 6998400, 6864384, 8407152, 8494848,  
10085472,  
9918720, 12319152

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Sequence: A281979

Name:  $a(n) = (A281959(n) - A037947(n))/657931$ .

$$\frac{1}{24 e^{-2\pi}}$$

Printed:  $1/24/\exp(-2*\pi)$

Value: 22.3121523135318640209602

Number of terms: 512

Offset: 1

Sequence: 0, 51, 1287808, 1711273635, 452970333696, 43211657266860,  
2038311950075136, 57420813107839395, 1091144797392901120,  
15199162675148592018,  
164678453263146595200, 1449942615368630353516,  
10725152052216567264768, 68394401763888606334680

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Sequence: A282012

Name: Coefficients in q-expansion of  $E_4^4$ , where  $E_4$  is the Eisenstein series shown in A004009.

$$\frac{81 \pi^8}{256 \Gamma\left(\frac{3}{4}\right)^{32}}$$

Printed: 81/256\*Pi^8/GAMMA(3/4)^32  
 Value: 4.49120190678941831549271  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 960, 354240, 61543680, 4858169280, 137745912960,  
 2120861041920, 21423820362240, 158753769048000, 928983317334720,  
 4512174992346240,  
 18847874280625920, 69518972236842240, 230951926208599680,  
 701949379778818560, 1975788826748167680

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Sequence: A282015  
 Name: Coefficients in q-expansion of  $E_4^5$ , where  $E_4$  is the Eisenstein series shown in A004009.

$$\frac{243 \pi^{10}}{1024 \Gamma\left(\frac{3}{4}\right)^{40}}$$

Printed: 243/1024\*Pi^10/GAMMA(3/4)^40  
 Value: 6.53812507759050586337466  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1200, 586800, 148641600, 20400279600, 1439038231200,  
 46093334702400, 861697555612800, 10894180752126000,  
 102121497049868400,  
 755966260027216800, 4623420005167550400, 24151632380348692800,  
 110516281318431693600, 451789183426135939200

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Sequence: A282018  
 Name: Coefficients in q-expansion of  $E_2^3$ , where  $E_2$  is the Eisenstein series shown in A006352.

$$\frac{27}{\pi^3}$$

Printed: 27/Pi^3  
 Value: .870791429696386207979399  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -72, 1512, -3744, -95544, -473904, -1538784, -3947328, -

8597880, -16987176, -30607632, -52030944, -83972448, -129500784, -  
 194056128, -\  
 279446976, -397468152, -544155408, -743106744, -978896160, -1296984528,  
 -1654458624, -2139055776, -2661349824, -3370243680, -4106376504, -  
 5113466064

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Sequence: A282019

Name: Coefficients in q-expansion of  $E_2 * E_4$ , where  $E_2$  and  $E_4$  are the Eisenstein series shown in A006352 and A004009, respectively.

$$\frac{9 \pi}{4 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed:  $9/4 * \text{Pi} / \text{GAMMA}(3/4)^8$

Value: 1.39015116164591635610992

Number of terms: 512

Offset: 0

Sequence: 1, 216, -3672, -62496, -322488, -1121904, -2969568, -6737472, -  
 13678200, -24978312, -43826832, -70620768, -112325472, -166558896, -\  
 248342976, -346320576, -491604984, -655461072, -897864696, -1154109600,  
 -1532856528, -1921344768, -2488726944, -3042415296, -3876616800, -  
 4639932504

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Sequence: A282101

Name: Coefficients in q-expansion of  $E_2 * E_4^2$ , where  $E_2$ ,  $E_4$  are the Eisenstein series shown in A006352, A004009, respectively.

$$\frac{27 \pi^3}{16 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed:  $27/16 * \text{Pi}^3 / \text{GAMMA}(3/4)^{16}$

Value: 2.02373047576836525132687

Number of terms: 512

Offset: 0

Sequence: 1, 456, 50328, -470496, -21784008, -234371664, -1446514848, -  
 6502690752, -23328111240, -71276388312, -191952331632, -468159788448,  
 -\  
 1052750026272, -2212261706256, -4394299104576, -8303419066176, -  
 15060718806024, -26284654025712, -44471780630856

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Sequence: A282208

Name: Coefficients in q-expansion of  $E_2^2 * E_4$ , where  $E_2$  and  $E_4$  are respectively the Eisenstein series A006352 and A004009.

$$\frac{27}{4 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed: 27/4/GAMMA(3/4)^8  
 Value: 1.32749657412532806965039  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 192, -8928, 9984, 1420896, 11433600, 53760384, 187233792,  
 533725920, 1327018944, 2953851840, 6060858624, 11611915392,  
 21030301824,  
 36387585792, 60357358080, 97020376032, 150755202432, 229107724704,  
 338493223680, 492378465600, 698632525824, 980953593984

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Sequence: A282210  
 Name: Coefficients in q-expansion of E\_2^4, where E\_2 is the Eisenstein series shown in A006352.

$$\frac{81}{\pi^4}$$

Printed: 81/Pi^4  
 Value: .831544562629431150321377  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -96, 3168, -34944, -107808, 1955520, 16829568, 76708608,  
 258593760, 715480608, 1729546560, 3771497088, 7581237888,  
 14296261056,  
 25520442624, 43590539520, 71582414304, 113752634688, 175604039136,  
 264097115520, 388619703360, 559658001408, 792716685696

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Sequence: A282330  
 Name: Coefficients in q-expansion of E\_4^6, where E\_4 is the Eisenstein series A004009.

$$\frac{729 \pi^{12}}{4096 \Gamma\left(\frac{3}{4}\right)^{48}}$$

Printed: 729/4096\*Pi^12/GAMMA(3/4)^48  
 Value: 9.51795987296773436718306  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 1440, 876960, 292072320, 57349833120, 6660135541440,  
 436536302762880, 15172132360815360, 327295477379498400,  
 4913576699608450080,  
 55439481453769056960, 496426192564963006080,  
 3672749219557161663360, 23148323907214334109120

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Sequence: A282402

Name: Coefficients in q-expansion of  $E_4^7$ , where  $E_4$  is the Eisenstein series A004009.

$$\frac{2187 \pi^{14}}{16384 \Gamma\left(\frac{3}{4}\right)^{56}}$$

Printed: 2187/16384\*Pi^14/GAMMA(3/4)^56

Value: 13.8558927931690261537477

Number of terms: 512

Offset: 0

Sequence: 1, 1680, 1224720, 505659840, 129351117840, 21060890131680,  
 2160822606183360, 134717272385473920, 4957295423282269200,  
 119288258695393463760, 2051465861242156554720,  
 26894077218337493424960, 281803532524538902825920

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Sequence: A282431

Name: Coefficients in q-expansion of  $E_2^5$ , where  $E_2$  is the Eisenstein series A006352.

$$\frac{243}{\pi^5}$$

Printed: 243/Pi^5

Value: .794066565261972669848670

Number of terms: 512

Offset: 0

Sequence: 1, -120, 5400, -104160, 511800, 6770736, -19504800, -452207040,  
 -2959622280, -12932941080, -44497080432, -129918587040, -335811977760,  
 -\ 788655411600, -1714912983360, -3498061536576, -6761506680840, -  
 12481939678320, -22138262633160, -37922739116640

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Sequence: A282474

Name: Coefficients in q-expansion of  $E_4^8$ , where  $E_4$  is the Eisenstein series A004009.

$$\frac{6561 \pi^{16}}{65536 \Gamma\left(\frac{3}{4}\right)^{64}}$$

Printed: 6561/65536\*Pi^16/GAMMA(3/4)^64

Value: 20.1708945675489069229675

Number of terms: 512

Offset: 0

Sequence: 1, 1920, 1630080, 803228160, 253366181760, 53205643249920,  
7498254194403840, 699684356363412480, 42100628403784982400,  
1614922125605880493440, 42332208491309728078080,  
812648422343847344279040, 12060223533365891970132480

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Sequence: A282546

Name: Coefficients in q-expansion of  $E_2 \cdot E_4^4$ , where  $E_2$  and  $E_4$  are respectively the Eisenstein series A006352 and A004009.

$$\frac{243 \pi^7}{256 \Gamma\left(\frac{3}{4}\right)^{32}}$$

Printed: 243/256\*Pi^7/GAMMA(3/4)^32

Value: 4.28878190333569015341398

Number of terms: 512

Offset: 0

Sequence: 1, 936, 331128, 52972704, 3355523352, 16684536816, -  
1540796901408, -39871325253312, -522168659242920, -4651083548616312,  
-\  
31647933913392432, -175516717881381408, -827283695234707872, -  
3413277291552455376, -12598120840018061376, -42296015537631706176

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Sequence: A282549

Name: Coefficients in q-expansion of  $E_2 \cdot E_4^3$ , where  $E_2$  and  $E_4$  are respectively the Eisenstein series A006352 and A004009.

$$\frac{81 \pi^5}{64 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 81/64\*Pi^5/GAMMA(3/4)^24

Value: 2.94607173057688656537416

Number of terms: 512

Offset: 0

Sequence: 1, 696, 161928, 12599904, -22912728, -6132581424, -  
 107015308128, -1012991092032, -6676225539480, -34225591158312, -  
 145164618698832, -\  
 530958452207328, -1722320395791072, -5059903726594416, -\  
 13673185634909376, -34406198518205376, -81397333990275864

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Sequence: A282586

Name: Coefficients in q-expansion of  $E_2^3 E_4$ , where  $E_2$  and  $E_4$  are  
 respectively the Eisenstein series A006352 and A004009.

$$\frac{81}{4 \pi \Gamma\left(\frac{3}{4}\right)^8}$$

Printed: 81/4/Pi/GAMMA(3/4)^8

Value: 1.26766585025761564315678

Number of terms: 512

Offset: 0

Sequence: 1, 168, -13608, 210336, 1805496, -22562064, -322437024, -  
 2063087808, -9165872520, -32250917496, -96383477232, -254377990944, -\  
 608736541728, -1346209592784, -2786771573568, -5459635814976, -\  
 10197462567432, -18283324047408, -31620880746504

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Sequence: A282597

Name: Expansion of  $\phi_{\{14, 1\}}(x)$  where  $\phi_{\{r, s\}}(x) = \sum_{n, m:0} m^r * n^s * x^{\{m*n\}}$ .

$$\frac{27 \pi^8}{4096 \Gamma\left(\frac{3}{4}\right)^{32}}$$

Printed: 27/4096\*Pi^8/GAMMA(3/4)^32

Value: .935667063914462149060982e-1

Number of terms: 512

Offset: 0

Sequence: 0, 1, 16386, 4782972, 268468228, 6103515630, 78373779192,  
 678223072856, 4398583447560, 22876806803877, 100012207113180,  
 379749833583252,  
 1284076017413616, 3937376385699302, 11113363271818416,  
 29192944359852360, 72066391204823056, 168377826559400946

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Sequence: A282751

Name: Expansion of  $\phi_{\{7, 2\}}(x)$  where  $\phi_{\{r, s\}}(x) = \sum_{n, m:0} m^r * n^s * x^{\{m*n\}}$ .

$$\frac{\pi^3}{512 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed: 1/512\*Pi^3/GAMMA(3/4)^16  
 Value: .234228064325042274459129e-2  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, 132, 2196, 16912, 78150, 289872, 823592, 2164800, 4802733,  
 10315800, 19487292, 37138752, 62748686, 108714144, 171617400,  
 277094656,  
 410338962, 633960756, 893872100, 1321672800, 1808608032, 2572322544,  
 3404825976, 4753900800, 6105469375, 8282826552

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Sequence: A282752  
 Name: Coefficients in q-expansion of E\_2^2 \* E\_4^2, where E\_2 and E\_4 are respectively the Eisenstein series A006352 and A004009.

$$\frac{81 \pi^2}{16 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed: 81/16\*Pi^2/GAMMA(3/4)^16  
 Value: 1.93252025222549066612740  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 432, 39312, -1711296, -14159664, 317412000, 5783500224,  
 47251354752, 263098098000, 1138294453104, 4105673192160,  
 12882680040384,  
 36171259008192, 92764213434144, 220523509245312, 491705284878720,  
 1037366470830672, 2086141009345632, 4022101701933264

-----

Sequence: A283120  
 Name: Expansion of exp( Sum\_{n:=1} sigma(8\*n)\*x^n/n ) in powers of x.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^8 2^{1/8}}{\pi^2 e^{\frac{\pi}{24}}}$$

Printed: 4/Pi^2 \* GAMMA(3/4)^8 / exp(1/24 \* Pi) \* 2^(1/8)  
 Value: 1.97156157131321083043972  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 15, 128, 815, 4289, 19663, 81057, 306799, 1081986, 3594142, 11338690, 34193246, 99080387, 277046893, 750192227, 1973050940, 5053026949, 12628736331, 30859262181, 73849589786, 173333118663, 399528823032, 905418038792, 2019454523623, 4437187104779

---

Sequence: A283163

Name: Expansion of  $\exp\left(\sum_{n=1}^{\infty} -\sigma(4n)x^n/n\right)$  in powers of  $x$ .

$$\frac{2^{7/8} \pi}{4 \Gamma\left(\frac{3}{4}\right)^4 e^{-\frac{\pi}{24}}}$$

Printed:  $1/4*2^{(7/8)}*Pi/GAMMA(3/4)^4/exp(-1/24*Pi)$

Value: .728123353071890381030462

Number of terms: 512

Offset: 0

Sequence: 1, -7, 17, -14, 2, -21, 36, 13, -26, -24, 10, 12, -17, 34, 22, 19, -96, -10, 14, 38, 0, 12, -23, 72, -38, -2, -11, -64, -34, 0, 72, 84, -26, 0, 0, -79, 60, 24, -32, -58, -7, -84, 50, 26, 120, 0, 0, 46, -34, -64, 10, -119, 70, 0, 22, -70, 36, 37, -120, 0

---

Sequence: A283168

Name: Expansion of  $\exp\left(\sum_{n=1}^{\infty} -\sigma(8n)x^n/n\right)$  in powers of  $x$ .

$$\frac{\pi^2 2^{7/8}}{8 \Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{24}}}$$

Printed:  $1/8*Pi^2/GAMMA(3/4)^8/exp(-1/24*Pi)*2^{(7/8)}$

Value: .507212158397834616070986

Number of terms: 512

Offset: 0

Sequence: 1, -15, 97, -350, 770, -1133, 1540, -2731, 4230, -3960, 3402, -6580, 9167, -5390, 4310, -11061, 12320, -5306, 2030, -7530, 14784, -4340, -10119, -9240, 20090, 11438, -17275, -4928, 2270, 14080, -26840, 7700, 16646, 24640, -53760, 7449, 10780, 46200, -61600

---

Sequence: A284286

Name: Expansion of  $\eta(q^2)^4 / \eta(q)^8$  in powers of  $q$ .

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^4}{\pi}$$

Printed: 2/Pi\*GAMMA(3/4)^4  
 Value: 1.43554002209225999564239  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 8, 40, 160, 552, 1712, 4896, 13120, 33320, 80872, 188784,  
 425952, 932640, 1988080, 4137024, 8422848, 16810536, 32943760,  
 63482760,  
 120440608, 225217904, 415498496, 756920160, 1362645440, 2425895712,  
 4273590392, 7454092720, 12879684160, 22056267840  
 -----

Sequence: A286131  
 Name: Expansion of q^(-1/2) \* eta(q) \* eta(q^30) \* eta(q^35) \* eta(q^42) in  
 powers of q.

$$\frac{\pi^{1/4} \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right) e^{\frac{95 \pi}{12}}}$$

Printed: 1/2\*Pi^(1/4)/GAMMA(3/4)/exp(95/12\*Pi)\*2^(1/2)  
 Value: .121388032872145135004508e-10  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 0, 0, 0, 1, -1, -1, 0, 0, 1, 0, 1, 0, 0, 0, 0, -1, 0, 0, -1, 0, 0, 0, 0, 0,  
 0, 1, 0, 0, 0, 1, 0, 0, 0, -1, 1, 1, 0, 0, -3, 1, 0, 0, 0,  
 -2, 0, -1, 1, 1, 1, 0, 0, 0, -1, 1, 1, -1, 0, 1, 0, -1, 1, 0, 0, -1, 0, 1, 0, -1, 1, -1, -  
 2, -1, 0, 1, 1, 4, -1, -1, 1, 0, 0  
 -----

Sequence: A286329  
 Name: Convolution inverse of A007267.

$$\frac{1}{648 e^{-2 \pi}}$$

Printed: 1/648/exp(-2\*Pi)  
 Value: .826376011612291260035562  
 Number of terms: 512  
 Offset: 1

Sequence: 1, -104, 6444, -311744, 13018830, -493025760, 17411253944, -  
 583472867840, 18770817643749, -584450497233840, 17716721171780388, -\  
 525192444572011776, 15276991910654781638, -437229195695756884672,

12338641730218147891560, -343932138212987023388672

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Sequence: A286346

Name: Expansion of eta(q)^24 / eta(q^2)^12 in powers of q.

$$\frac{\pi^3}{8 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed: 1/8\*Pi^3/GAMMA(3/4)^12

Value: .338029097033225413250220

Number of terms: 512

Offset: 0

Sequence: 1, -24, 264, -1760, 7944, -25872, 64416, -133056, 253704, -  
472760, 825264, -1297056, 1938336, -2963664, 4437312, -6091584, 8118024, -  
11368368, 15653352, -19822176, 24832944, -32826112, 42517728, -  
51425088, 61903776, -78146664, 98021616, -115331264, 133522752

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Sequence: A286399

Name: Expansion of eta(q^2)^12 \* eta(q^4)^8 / eta(q)^8 in powers of q.

$$\frac{\pi^3}{1024 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed: 1/1024\*Pi^3/GAMMA(3/4)^12

Value: .264085232057207354101734e-2

Number of terms: 512

Offset: 0

Sequence: 0, 0, 1, 8, 32, 96, 244, 528, 1024, 1856, 3126, 5016, 7808, 11616,  
16808, 23856, 32768, 44352, 59293, 77352, 100032, 128128, 161052,  
201264, 249856, 305280, 371294, 450128, 537856, 640992, 762744, 894528,  
1048576, 1228224, 1419858, 1642080, 1897376, 2167008

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Sequence: A286953

Name: Expansion of Product\_{j=1} (1 - x^j)/(1 - x^(4\*j))^4.

$$\frac{8 \Gamma\left(\frac{3}{4}\right)^3 2^{1/8}}{\pi^{3/4} e^{\frac{5\pi}{8}}}$$



$$\frac{\pi^9 \sqrt{2}}{8388608 \Gamma\left(\frac{3}{4}\right)^{36} e^{-\frac{9\pi}{2}}}$$

Printed: 1/8388608\*Pi^9/GAMMA(3/4)^36/exp(-9/2\*Pi)\*2^(1/2)  
 Value: 4.59886760182590661998278  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 36, 630, 7176, 60165, 398412, 2184078, 10255320, 42321942,  
 156590980, 527649912, 1639560888, 4745867595, 12904341336,  
 33190117110,  
 81222775680, 190066236318, 427113304920, 925107172122,  
 1937505253320, 3934709716500, 7767340567380, 14937197788890

Sequence: A287991  
 Name: Expansion of Jacobi theta constant (theta\_2/2)^48.

$$\frac{\pi^{12}}{1073741824 \Gamma\left(\frac{3}{4}\right)^{48} e^{-6\pi}}$$

Printed: 1/1073741824\*Pi^12/GAMMA(3/4)^48/exp(-6\*Pi)  
 Value: 7.64776513721203659871078  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 48, 1128, 17344, 196836, 1764192, 13051008, 82244736,  
 452197434, 2210431056, 9753024192, 39328459968, 146436844568,  
 507826976160,  
 1652238451200, 5074887938688, 14794635174459, 41126600601168,  
 109456398969568, 279899944411776, 689873759134308

Sequence: A288727  
 Name: Expansion of 1/j^2 where j is the elliptic modular invariant (A000521).

$$\frac{1}{2985984 e^{-4\pi}}$$

Printed: 1/2985984/exp(-4\*Pi)  
 Value: .960324345799084321103863e-1  
 Number of terms: 420  
 Offset: 2

Sequence: 1, -1488, 1266840, -811420480, 434731407660, -

205762405603104, 88869953694086720, -35768448018942261120,  
13610297613250180785870, -\  
4947238483283026511913200, 1731166476103096494953112096, -  
586625688530872572480200739648

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Sequence: A288816  
Name: Coefficients in expansion of  $1/E_2$ .

$$\frac{\pi}{3}$$

Printed:  $1/3*\pi$   
Value: 1.04719755119659774615421  
Number of terms: 512  
Offset: 0

Sequence: 1, 24, 648, 17376, 466152, 12505104, 335466144, 8999325120,  
241418862504, 6476381979576, 173737557697968, 4660740989265312,  
125030574027131424, 3354111390776151504, 89978497733627940672,  
2413792838444465745216, 64753202305891291798824

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Sequence: A288846  
Name: Expansion of  $(q^j)^3$ , where  $j$  is a modular function A000521.

$$\frac{5159780352}{e^{6\pi}}$$

Printed:  $5159780352/\exp(6*\pi)$   
Value: 33.6026161838714220795417  
Number of terms: 512  
Offset: 0

Sequence: 1, 2232, 2251260, 1355202240, 541778118390, 151522053809760,  
30456116651640888, 4460775211418664960, 479919718908048515625,  
38292247221915373896560, 2309356967925215526546564,  
108570959012192293978767360, 4111854826236389868361040550

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Sequence: A288877  
Name: Coefficients in expansion of  $E_4/E_2$ .

$$\frac{\pi^3}{4 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed:  $1/4*\pi^3/\text{GAMMA}(3/4)^8$   
Value: 1.52447133590666893996846  
Number of terms: 512

Offset: 0

Sequence: 1, 264, 8568, 231456, 6214872, 166719024, 4472485344,  
119980322880, 3218631807384, 86344077536616, 2316294684846288,  
62137684699355232,  
1666926011246777184, 44717506621139113584, 1199606572169515887552,  
32181041313068138778816

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Sequence: A289062

Name: Coefficients in expansion of  $E_2^{12}/\text{Product}_{\{k=1\}} (1-q^k)^{24}$ .

$$\frac{2176782336 \Gamma\left(\frac{3}{4}\right)^{24}}{\pi^{18} e^{2\pi}}$$

Printed: 2176782336/Pi^18\*GAMMA(3/4)^24/exp(2\*Pi)

Value: .601416972376953932785185

Number of terms: 512

Offset: 0

Sequence: 1, -264, 30564, -2012800, 81099090, -1952940672, 22697326712,  
63468624384, -4486982088465, 11373493964160, 616923039055284, -\  
663002527580928, -77516928995402226, -352040146340083200,  
5929423960701095640, 87636971447313802240, 269600086946598203619

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Sequence: A289247

Name: Coefficients in expansion of  $1/E_4^{1/8}$ .

$$\frac{2^{1/4} 3^{7/8} \Gamma\left(\frac{3}{4}\right)}{3 \pi^{1/4}}$$

Printed: 1/3/Pi^(1/4)\*2^(1/4)\*3^(7/8)\*GAMMA(3/4)

Value: .954143441400232413939502

Number of terms: 426

Offset: 0

Sequence: 1, -30, 3780, -616440, 111056910, -21135698280, 4165203862440,  
-840914061328320, 172810940671692900, -35998781800053352710,  
7579904611028433074280, -1609957152292592382408360,  
344417407415742189796786680, -74127324674775434904036905640

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Sequence: A289291

Name: Coefficients in expansion of  $E_2^{1/2}$ .



4886913657541566648179, 999849040331683393909232, -  
206741394604073327046805355

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Sequence: A289298

Name: Expansion of  $(q*j(q))^{1/8}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{2^{3/4} 3^{3/8}}{e^{\frac{\pi}{4}}}$$

Printed:  $1/\exp(1/4*\pi)*2^{3/4}*3^{3/8}$

Value: 1.15770758532561667208279

Number of terms: 426

Offset: 0

Sequence: 1, 93, -5661, 741532, -113207799, 19015433748, -3390166183729,  
629581913929419, -120437982238038210, 23564574046009042869, -\  
4692899968498921291530, 948024211601180444075739, -  
193775768073341380441728322

---

Sequence: A289299

Name: Expansion of  $(q*j(q))^{1/6}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{2\sqrt{3}}{e^{\frac{\pi}{3}}}$$

Printed:  $2/\exp(1/3*\pi)*3^{1/2}$

Value: 1.21562187083056283900544

Number of terms: 427

Offset: 0

Sequence: 1, 124, -5626, 715000, -104379375, 16966161252, -  
2946652593626, 535467806605000, -100554207738307500,  
19359037551684042500, -\  
3800593180746056684372, 757968936254309704500248, -  
153133996443087103652605627

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Sequence: A289300

Name: Expansion of  $(q*j(q))^{5/24}$  where  $j(q)$  is the elliptic modular invariant (A000521).



666990037937425724641, 127890778891452935279096, -  
24934077008209243436961385

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Sequence: A289303

Name: Expansion of  $(q*j(q))^{3/8}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{12 \cdot 2^{1/4} \cdot 3^{1/8}}{e^{\frac{3\pi}{4}}}$$

Printed:  $12/\exp(3/4*\pi)*2^{(1/4)}*3^{(1/8)}$

Value: 1.55166025636976879090940

Number of terms: 427

Offset: 0

Sequence: 1, 279, 8964, -129885, 23406255, -3128904747, 473738861853, -  
76824787699971, 13098300010462845, -2318947179364181165,  
422782870045511526012, -78914282330756685655485,  
15016013710284896513279286

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Sequence: A289304

Name: Expansion of  $(q*j(q))^{5/12}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{12 \sqrt{2} \cdot 3^{1/4}}{e^{\frac{5\pi}{6}}}$$

Printed:  $12/\exp(5/6*\pi)*2^{(1/2)}*3^{(1/4)}$

Value: 1.62928201183991353930328

Number of terms: 427

Offset: 0

Sequence: 1, 310, 14765, -232770, 40539830, -5199871688, 765038308115, -  
121140033966330, 20242157273780710, -3521886754264327670,  
632344647471171938140, -116428917411726531951590,  
21883035176258955622401245

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Sequence: A289305

Name: Expansion of  $(q*j(q))^{11/24}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{12 \cdot 2^{3/4} \cdot 3^{3/8}}{e^{11\pi/12}}$$

Printed: 12/exp(11/12\*Pi)\*2^(3/4)\*3^(3/8)  
 Value: 1.71078679318349480135850  
 Number of terms: 428  
 Offset: 0

Sequence: 1, 341, 21527, -244112, 50791235, -6177875286, 883458515093, -  
 136541356378141, 22354744100161913, -3821528558157433970,  
 675604462786881129711, -122689458583136157060647,  
 22774615293799045532223797

Sequence: A289307  
 Name: Coefficients in expansion of  $E_4^{1/4}$  in powers of  $q$ .

$$\frac{\sqrt{\pi} \sqrt{2} \cdot 3^{1/4}}{2 \Gamma\left(\frac{3}{4}\right)^2}$$

Printed: 1/2\*Pi^(1/2)\*2^(1/2)\*3^(1/4)/GAMMA(3/4)^2  
 Value: 1.09843069683986206894294  
 Number of terms: 426  
 Offset: 0

Sequence: 1, 60, -4860, 660480, -105063420, 18206269560, -3328461434880,  
 631226199152640, -122944850563477500, 24436796345920143420, -\  
 4935178772322020730360, 1009598430837232126725120, -  
 208736157503462405753487360, 43541664791244563211024015480

Sequence: A289308  
 Name: Coefficients in expansion of  $E_4^{3/8}$ .

$$\frac{\pi^{3/4} \cdot 2^{1/4} \cdot 3^{3/8}}{2 \Gamma\left(\frac{3}{4}\right)^3}$$

Printed: 1/2\*Pi^(3/4)\*2^(1/4)\*3^(3/8)/GAMMA(3/4)^3  
 Value: 1.15122176517598238448390  
 Number of terms: 426  
 Offset: 0

Sequence: 1, 90, -5940, 758520, -115431930, 19355028840, -3447208777320,  
 639751846440960, -122326632902618100, 23925871041887048130, -\  
 4763590542726586318440, 962102309316632909723880, -  
 196619722885250960565506040, 40580696990507644723354537320

Sequence: A289309

Name: Coefficients in expansion of  $E_4^{(5/8)}$ .

$$\frac{\pi^{5/4} 2^{3/4} 3^{5/8}}{4 \Gamma\left(\frac{3}{4}\right)^5}$$

Printed:  $1/4 * \pi^{(5/4)} * 2^{(3/4)} * 3^{(5/8)} / \text{GAMMA}(3/4)^5$

Value: 1.26453732573947038658522

Number of terms: 427

Offset: 0

Sequence: 1, 150, -5400, 625200, -86672550, 13570016400, -2289741037200, 406440122001600, -74830416797043000, 14162747887897808550, -2738995393669565720400, 538973037306449327998800, -107578899914865970323788400, 21729813219122500082762389200

Sequence: A289318

Name: Coefficients in expansion of  $E_4^{(3/4)}$ .

$$\frac{\pi^{3/2} \sqrt{2} 3^{3/4}}{4 \Gamma\left(\frac{3}{4}\right)^6}$$

Printed:  $1/4 * \pi^{(3/2)} * 2^{(1/2)} * 3^{(3/4)} / \text{GAMMA}(3/4)^6$

Value: 1.32531155261490472757991

Number of terms: 427

Offset: 0

Sequence: 1, 180, -3780, 447840, -59046660, 8921092680, -1463828444640, 253953515257920, -45858209756343300, 8534765953624978260, -1626301691950399586280, 315807346469727624396960, -62284193156782292089690080, 12443904711281870749228431240

Sequence: A289319

Name: Coefficients in expansion of  $E_4^{(7/8)}$ .

$$\frac{\pi^{7/4} 2^{1/4} 3^{7/8}}{4 \Gamma\left(\frac{3}{4}\right)^7}$$

Printed:  $1/4 * \pi^{(7/4)} * 2^{(1/4)} * 3^{(7/8)} / \text{GAMMA}(3/4)^7$

Value: 1.38900661589202210605931

Number of terms: 427

Offset: 0

Sequence: 1, 210, -1260, 232680, -28907970, 4211355960, -671557897080,  
113817372354240, -20151698294479500, 3687092782592216970, -\  
692109989731133096760, 132609267059636375116920, -  
25838624519733523814390760, 5105657091664960508653858680  
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Sequence: A289392

Name: Coefficients in expansion of  $E_2^{(1/4)}$ .

$$\frac{3^{1/4}}{\pi^{1/4}}$$

Printed:  $1/\pi^{(1/4)}*3^{(1/4)}$

Value: .988536809535102664996684

Number of terms: 512

Offset: 0

Sequence: 1, -6, -72, -1104, -20238, -405792, -8601840, -189317568, -  
4281478272, -98841343686, -2318973049008, -55118876238000, -  
1324194430710912,  
-32099173821105312, -784045854628721568, -19276683937074656064, -  
476644852188898489662  
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Sequence: A289393

Name: Coefficients in expansion of  $E_2^{(3/4)}$ .

$$\frac{3^{3/4}}{\pi^{3/4}}$$

Printed:  $1/\pi^{(3/4)}*3^{(3/4)}$

Value: .966003136494698966621721

Number of terms: 512

Offset: 0

Sequence: 1, -18, -108, -936, -13194, -224424, -4218264, -84318336, -  
1759467636, -37903487130, -836893437912, -18844318997496, -  
431163494289720, -\  
9997357777073064, -234430475682110256, -5550426839122171776, -  
132513976699508759994  
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Sequence: A289397

Name: Coefficients in expansion of  $(q*j(q))^{(-1/24)}$ .

$$\frac{2^{3/4} 3^{7/8}}{6 e^{-\frac{\pi}{12}}}$$

Printed: 1/6/exp(-1/12\*Pi)\*2^(3/4)\*3^(7/8)  
 Value: .952358305740767278163840  
 Number of terms: 426  
 Offset: 0

Sequence: 1, -31, 3809, -620190, 111669570, -21246138749, 4186228503780,  
 -845058129488699, 173647689528542310, -36170751826552656600,  
 7615730581866678419370, -1617501058117655447210580,  
 346019784662582818549094159

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Sequence: A289454  
 Name: Expansion of 1/j^3 where j is the elliptic modular invariant (A000521).

$$\frac{1}{5159780352 e^{-6 \pi}}$$

Printed: 1/5159780352/exp(-6\*Pi)  
 Value: .297595876025861292171952e-1  
 Number of terms: 418  
 Offset: 3

Sequence: 1, -2232, 2730564, -2425008768, 1748443340826, -  
 1085940040502592, 602376210735356376, -305671359557586479616,  
 144309502321265349235035, -\  
 64175062238369552680712096, 27135987216939727366492175940, -  
 10990160397215122310079248998656

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Sequence: A289455  
 Name: Expansion of 1/j^4 where j is the elliptic modular invariant (A000521).

$$\frac{1}{8916100448256 e^{-8 \pi}}$$

Printed: 1/8916100448256/exp(-8\*Pi)  
 Value: .922222849134439280166119e-2  
 Number of terms: 416  
 Offset: 4

Sequence: 1, -2976, 4747824, -5392956800, 4889133749400, -  
 3761165322168768, 2549962294786430144, -1562849905009064897280,  
 881746577453401952409900,  
 -464149085470990004575901600, 230323243751761513144853469408, -  
 108618796884881830752241855604352

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Sequence: A289512

Name: Expansion of  $1/j^5$  where  $j$  is the elliptic modular invariant (A000521).

$$\frac{1}{15407021574586368 e^{-10 \pi}}$$

Printed:  $1/15407021574586368/\exp(-10*\pi)$

Value: .285788564957040647023318e-2

Number of terms: 414

Offset: 5

Sequence: 1, -3720, 7318620, -10127095360, 11061866004390, -  
10151440298355744, 8136148305855926840, -5846643254165797186560,  
3838606195380374717418465, -2335284727373310897029544400,  
1330851094413644423959537571652, -  
716606026961666494353690542814720

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Sequence: A289513

Name: Expansion of  $1/j^6$  where  $j$  is the elliptic modular invariant (A000521).

$$\frac{1}{26623333280885243904 e^{-12 \pi}}$$

Printed:  $1/26623333280885243904/\exp(-12*\pi)$

Value: .885633054275998037974860e-3

Number of terms: 412

Offset: 6

Sequence: 1, -4464, 10442952, -17039255232, 21778105580100, -  
23220214437622752, 21481529172149572992, -17710788549056167790208,  
13266671900249257490243610, -9160802613358728056593238800,  
5897060690397181329853257045696

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Sequence: A289514

Name: Expansion of  $1/j^7$  where  $j$  is the elliptic modular invariant (A000521).

$$\frac{1}{46005119909369701466112 e^{-14 \pi}}$$

Printed:  $1/46005119909369701466112/\exp(-14*\pi)$

Value: .274449716679229173898988e-3

Number of terms: 410

Offset: 7

Sequence: 1, -5208, 14120820, -26541267200, 38855720054130, -  
47202347794186368, 49508378454093937112, -46064135137842011274240,  
38772486464181493598745975, -29962343460442400908618822720,  
21503606192545582819121286031524

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Sequence: A289515

Name: Expansion of  $1/j^8$  where  $j$  is the elliptic modular invariant (A000521).

$$\frac{1}{79496847203390844133441536 e^{-16 \pi}}$$

Printed:  $1/79496847203390844133441536/\exp(-16*\text{Pi})$

Value: .850494983465642752962683e-4

Number of terms: 408

Offset: 8

Sequence: 1, -5952, 18352224, -39044962048, 64418979107376, -  
87832074172772736, 102995856743010218624, -  
106751551557580631373312,  
99750353173835532264248472, -85298079996944806752079602240,  
67533359025085585021484468850240, -  
49969584220872820552640845366351104,  
34818371808714662813628963122182100160

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Sequence: A289516

Name: Expansion of  $1/j^9$  where  $j$  is the elliptic modular invariant (A000521).

$$\frac{1}{137370551967459378662586974208 e^{-18 \pi}}$$

Printed:  $1/137370551967459378662586974208/\exp(-18*\text{Pi})$

Value: .263560744624724797059179e-4

Number of terms: 406

Offset: 9

Sequence: 1, -6696, 23137164, -54962170560, 100898554524030, -  
152570964293469792, 197804824654438091448, -  
226001211084270994392576,  
232143871270380435422031645, -217638824689267205181123513840,  
188440939272259782078293099295972

-----  
Sequence: A289517

Name: Expansion of  $1/j^{10}$  where  $j$  is the elliptic modular invariant (A000521).

$$\frac{1}{237376313799769806328950291431424 e^{-20 \pi}}$$

Printed:  $1/237376313799769806328950291431424/\exp(-20*\text{Pi})$

Value: .816751038602046413207764e-5

Number of terms: 405

Offset: 10

Sequence: 1, -7440, 28475640, -74704723520, 151031520191580, -  
 250835888956579488, 356272260416109602240, -  
 444864441668603737630080,  
 498241081014831011965132710, -508187364230945384698554319920,  
 477695553082956543572082694287840

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Sequence: A289565  
 Name: Coefficients in expansion of  $1/E_2^{(1/2)}$ .

$$\frac{\sqrt{\pi} \sqrt{3}}{3}$$

Printed:  $1/3 * \pi^{(1/2)} * 3^{(1/2)}$   
 Value: 1.02332670794648848847956  
 Number of terms: 512  
 Offset: 0

Sequence: 1, 12, 252, 5664, 133356, 3224952, 79387488, 1978996416,  
 49797787788, 1262193008556, 32177428972632, 824182154521056,  
 21193138994244960,  
 546767126418119352, 14146104826919725632, 366887630982365262144,  
 9535791498480146879436

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Sequence: A289566  
 Name: Coefficients in expansion of  $1/E_4^{(1/2)}$ .

$$\frac{2 \sqrt{3} \Gamma\left(\frac{3}{4}\right)^4}{3 \pi}$$

Printed:  $2/3 * \pi * 3^{(1/2)} * \text{GAMMA}(3/4)^4$   
 Value: .828809418187447625474800  
 Number of terms: 425  
 Offset: 0

Sequence: 1, -120, 20520, -3934560, 793510440, -164694615120,  
 34824089129760, -7460017581785280, 1613575314347164200, -  
 351613291994820018840,  
 77073167391611232305520, -16975579813113940564868640,  
 3753822590560913900129106720

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Sequence: A289744  
 Name: Coefficients in expansion of  $q * E'_8$  where  $E_8$  is the Eisenstein Series (A008410).

$$\frac{9 \pi^3}{8 \Gamma\left(\frac{3}{4}\right)^{16} e^{-2 \pi}}$$

Printed: 9/8\*Pi^3/GAMMA(3/4)^16/exp(-2\*Pi)

Value: 722.460521870081129964856

Number of terms: 512

Offset: 1

Sequence: 480, 123840, 3150720, 31704960, 187502400, 812885760,  
2767107840, 8116473600, 20671878240, 48375619200, 102892268160,  
208111357440,  
391550752320, 713913822720, 1230765753600, 2077817249280,  
3348363579840, 5333344585920, 8152110268800, 12384908524800

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Sequence: A289745

Name: Coefficients in expansion of -q\*E'\_10 where E\_10 is the Eisenstein Series (A013974).

$$\frac{27 \pi^6}{128 \Gamma\left(\frac{3}{4}\right)^{24} e^{-2 \pi}}$$

Printed: 27/128\*Pi^6/GAMMA(3/4)^24/exp(-2\*Pi)

Value: 826.027767686333844216635

Number of terms: 512

Offset: 1

Sequence: 264, 270864, 15589728, 277365792, 2578126320, 15995060928,  
74573467584, 284022573120, 920557851048, 2645157604320,  
6847480097568,  
16379004749184, 36394641851568, 76512377741184, 152243515448640,  
290839114879104, 532222389723024, 944492355175248

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Sequence: A289746

Name: Coefficients in expansion of -q\*E'\_14 where E\_14 is the Eisenstein Series (A058550).

$$\frac{81 \pi^8}{512 \Gamma\left(\frac{3}{4}\right)^{32} e^{-2 \pi}}$$

Printed: 81/512\*Pi^8/GAMMA(3/4)^32/exp(-2\*Pi)

Value: 1202.50057218132286772441

Number of terms: 512

Offset: 1

Sequence: 24, 393264, 114791328, 6443237472, 146484375120,  
 1880970700608, 16277353748544, 105566002741440, 549043363293048,  
 2400292970716320,  
 9113996005998048, 30817824417926784, 94497033256783248,  
 266720718523641984, 700630664636456640

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Sequence: A290152

Name: Coefficients in expansion of  $E_4 \Delta^3$  where Delta is the generating function of Ramanujan's tau function (A000594).

$$\frac{3 \pi^{20}}{274877906944 \Gamma\left(\frac{3}{4}\right)^{80} e^{-6 \pi}}$$

Printed:  $3/274877906944 * \pi^{20} / \text{GAMMA}(3/4)^{80} / \exp(-6 * \pi)$

Value: 1.27213545803423467296939

Number of terms: 512

Offset: 3

Sequence: 1, 168, -12636, 392832, -7335174, 92207808, -804651624,  
 4626614784, -11834988165, -73870961696, 1115908456740, -  
 7498139072256,  
 32630722986078, -90379426346496, 94395618447768, 450271639673856, -  
 2625847472007243, 6203580643521072, -3151366507609936

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Sequence: A290178

Name: Coefficients in expansion of  $E_4 \Delta^2$  where Delta is the generating function of Ramanujan's tau function (A000594).

$$\frac{3 \pi^{14}}{67108864 \Gamma\left(\frac{3}{4}\right)^{56} e^{-4 \pi}}$$

Printed:  $3/67108864 * \pi^{14} / \text{GAMMA}(3/4)^{56} / \exp(-4 * \pi)$

Value: 1.33061511820622922013029

Number of terms: 512

Offset: 2

Sequence: 1, 192, -8280, 147200, -1438020, 7491456, -4626880, -246965760,  
 2112385950, -9443825600, 23625035616, -14413771008, -118710609640,  
 427914230400, -467038103040, -645319017984, 1640006523477,  
 2800373100480, -8506579320400, -21655683517440, 108181106829972

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Sequence: A290180

Name: Coefficients in expansion of  $E_8 \Delta^2$  where Delta is the generating

function of Ramanujan's tau function (A000594).

$$\frac{9 \pi^{16}}{268435456 \Gamma\left(\frac{3}{4}\right)^{64} e^{-4 \pi}}$$

Printed: 9/268435456\*Pi^16/GAMMA(3/4)^64/exp(-4\*Pi)

Value: 1.93706011297637078878322

Number of terms: 512

Offset: 2

Sequence: 1, 432, 39960, -1418560, 17312940, -71928864, -462815680, 7500885120, -38038437810, 29000909200, 729783353376, -4661016429888, 13691625085880, -16503845217120, -14982974507520, 45085348093056, 99234456545637, -157805792764560, -1644659689877680

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Sequence: A290271

Name: Expansion of  $j(q) * q * \prod_{n=1}^{\infty} (1+q^n)^{24}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{27}{8}$$

Printed: 27/8

Value: 3.375000000000000000000000

Number of terms: 512

Offset: 0

Sequence: 1, 768, 215040, 26444800, 1441185792, 47967398400, 1138440560640, 21001337579520, 317833282191360, 4093417325768448, 46062726364262400, 461921554374159360, 4191623003406663680, 34838889359457538560, 267847934788735057920

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Sequence: A290404

Name: Expansion of  $(1 - \lambda(z) + \lambda(z)^2)^3$  in powers of nome  $q = \exp(\pi i z)$  where  $\lambda(z)$  is the elliptic modular function (A115977).

$$\frac{27}{64}$$

Printed: 27/64

Value: .421875000000000000000000

Number of terms: 512

Offset: 0

Sequence: 1, -48, 1920, -55360, 1324032, -26724000, 464570880, -7064945280, 94923448320, -1136097028848, 12215871801600, -119054431876800,

1060887371509760, -8714739888694560, 66487024888734720, -  
474247005621552000, 3181339807178883072, -20174389229411069280

---

Sequence: A291124

Name: Expansion of  $\phi(x)^6 * \phi(-x)^2$  in powers of  $x$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\pi^2 \sqrt{2}}{2 \Gamma\left(\frac{3}{4}\right)^8}$$

Printed:  $1/2 * \pi^2 * 2^{(1/2)} / \text{GAMMA}(3/4)^8$

Value: 1.37250641723059439959790

Number of terms: 512

Offset: 0

Sequence: 1, 8, 16, -32, -144, -16, 448, 192, -912, -88, 2016, -352, -4032,  
176, 5504, 64, -7056, 400, 12112, 352, -18144, -768, 21312, -448, -\  
25536, -968, 35168, 1216, -49536, 1584, 56448, -1280, -56208, 1408, 78624,  
-384, -109008, -1296, 109760, -704, -114912, -1584

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Sequence: A294181

Name: Coefficients in expansion of  $E_2/E_4$ .

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^8}{\pi^3}$$

Printed:  $4/\pi^3 * \text{GAMMA}(3/4)^8$

Value: .655965105047551985324956

Number of terms: 424

Offset: 0

Sequence: 1, -264, 61128, -14107296, 3255470952, -751247454384,  
173361309784992, -40005651284526912, 9231887649122522280, -  
2130392752758423726312,  
491619206548389935051568, -113448303808924351510423008,  
26179851123971817380111236128

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Sequence: A295791

Name: Coefficients in expansion of  $E_2^{(-1/4)}$ .

$$\frac{\pi^{1/4} 3^{3/4}}{3}$$

Printed:  $1/3 * \pi^{(1/4)} * 3^{(3/4)}$

Value: 1.01159611898548152174125  
Number of terms: 512  
Offset: 0

Sequence: 1, 6, 108, 2184, 47742, 1090152, 25611768, 613822656,  
14929345764, 367245444750, 9115311075192, 227905170276312,  
5732722676418360,  
144936257747302056, 3680263321993685808, 93801354359445152064,  
2398609984906822659918

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Sequence: A295815  
Name: Coefficients in expansion of  $E_4^{-1/4}$ .

$$\frac{\sqrt{2} 3^{3/4} \Gamma\left(\frac{3}{4}\right)^2}{3 \sqrt{\pi}}$$

Printed:  $1/3/\text{Pi}^{(1/2)}*2^{(1/2)}*3^{(3/4)}*\text{GAMMA}(3/4)^2$   
Value: .910389706767078746432129  
Number of terms: 426  
Offset: 0

Sequence: 1, -60, 8460, -1459680, 273388620, -53595097560,  
10818138134880, -2228446076600640, 465957083177325900, -  
98553257565313635420,  
21034800052217022675960, -4522762142866403196901920,  
978397734079422399475947360

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Sequence: A299473  
Name:  $a(n) = 3^*p(n)$ , where  $p(n)$  is the number of partitions of  $n$ .

$$\frac{3 2^{3/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{24}}}$$

Printed:  $3*2^{(3/8)}/\text{Pi}^{(1/4)}*\text{GAMMA}(3/4)/\text{exp}(1/24*\text{Pi})$   
Value: 3.14162841013812639065940  
Number of terms: 512  
Offset: 0

Sequence: 3, 3, 6, 9, 15, 21, 33, 45, 66, 90, 126, 168, 231, 303, 405, 528, 693,  
891, 1155, 1470, 1881, 2376, 3006, 3765, 4725, 5874, 7308, 9030,  
11154, 13695, 16812, 20526, 25047, 30429, 36930, 44649, 53931, 64911,  
78045, 93555, 112014, 133749, 159522, 189783, 225525, 267402, 316674,  
374262,  
441819, 520575, 612678

---

Sequence: A299474

Name:  $a(n) = 4 \cdot p(n)$ , where  $p(n)$  is the number of partitions of  $n$ .

$$\frac{4 \cdot 2^{3/8} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{24}}}$$

Printed:  $4 \cdot 2^{(3/8)}/\text{Pi}^{(1/4)} \cdot \text{GAMMA}(3/4)/\text{exp}(1/24 \cdot \text{Pi})$

Value: 4.18883788018416852087920

Number of terms: 512

Offset: 0

Sequence: 4, 4, 8, 12, 20, 28, 44, 60, 88, 120, 168, 224, 308, 404, 540, 704, 924, 1188, 1540, 1960, 2508, 3168, 4008, 5020, 6300, 7832, 9744, 12040, 14872, 18260, 22416, 27368, 33396, 40572, 49240, 59532, 71908, 86548, 104060, 124740, 149352, 178332, 212696, 253044, 300700, 356536, 422232, 499016, 589092, 694100, 816904

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Sequence: A299831

Name: Coefficients in expansion of  $(q \cdot j(q))^{-1/3}$  where  $j(q)$  is the elliptic modular invariant (A000521).

$$\frac{1}{12 e^{-\frac{2\pi}{3}}}$$

Printed:  $1/12/\text{exp}(-2/3 \cdot \text{Pi})$

Value: .676710616389148026320581

Number of terms: 424

Offset: 0

Sequence: 1, -248, 57380, -13242240, 3055845770, -705181025216, 162730809182936, -37552508189222400, 8665789092645124915, -1999757252424845206240, 461473159094045987499908, -106491663578673234478298880, 24574504905153510156698896190

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Sequence: A299954

Name: Coefficients in expansion of  $432 \cdot (j^{(1/2)} + (j - 1728)^{(1/2)}) / (j^{(1/2)} - (j - 1728)^{(1/2)})$ , where  $j$  is the  $j$ -function.

$$\frac{432}{e^{2\pi}}$$

Printed:  $432/\text{exp}(2 \cdot \text{Pi})$

Value: .806735260097851167833855  
Number of terms: 428  
Offset: -1

Sequence: 1, -120, 10260, -901120, 91676610, -10868097024,  
1455225319640, -213263515975680, 33415165837622655, -  
5507368816607232000,  
944071154093581913700, -166969055816397343457280,  
30289678318291920442724670, -5611505834651089642200760320  
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Sequence: A299955  
Name: Coefficients in expansion of  $E_4^{(3/2)}$ .

$$\frac{3 \pi^3 \sqrt{3}}{8 \Gamma\left(\frac{3}{4}\right)^{12}}$$

Printed:  $3/8 * \pi^3 * 3^{(1/2)} / \text{GAMMA}(3/4)^{12}$   
Value: 1.75645071149452938206022  
Number of terms: 428  
Offset: 0

Sequence: 1, 360, 24840, -465120, 57417480, -6800282640, 930889890720, -  
139401582644160, 22250341370421000, -3723955494287559480,  
646515765251485521840, -115559140273640812421280,  
21150946022800731753255840, -3948247836773858791840263120  
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Sequence: A302856  
Name: Number of ways of writing n as a sum of 32 squares.

$$\frac{\pi^8}{\Gamma\left(\frac{3}{4}\right)^{32}}$$

Printed:  $\pi^8 / \text{GAMMA}(3/4)^{32}$   
Value: 14.1944159029393961576066  
Number of terms: 512  
Offset: 0

Sequence: 1, 64, 1984, 39680, 575424, 6448000, 58115328, 433131008,  
2724906944, 14709082432, 69079796864, 285848172800, 1054968628480,  
3515371815296, 10706472186368, 30156949879296, 79395777333184,  
197101549419648, 464573878394560, 1045365667116800,  
2256126097001600, 4689805691447296  
-----

Sequence: A304570



1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 0,  
 0, 1, 0, 0, 0, 0, 0, 1

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Sequence: A308285  
 Name: Coefficients in q-expansion of E\_2^6, where E\_2 is the Eisenstein series A006352.

$$\frac{729}{\pi^6}$$

Printed: 729/Pi^6  
 Value: .758277714032676323849493  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -144, 8208, -225216, 2634192, 1488672, -209742912, -  
 503961984, 8575185744, 91347182640, 524570699232, 2230073940672,  
 7794083954880,  
 23627036677536, 64145226215808, 159373702203264, 368012313906768,  
 798872890993632, 1644874069475664, 3234829827767616

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Sequence: A318880  
 Name: a(n) = 0 if iteration of the map k -> A034460(k) reaches zero when started from k = n, otherwise 1, when it ends into a cycle.

$$\frac{1}{e^{10\pi}}$$

Printed: 1/exp(10\*Pi)  
 Value: .227110106832409383867935e-13  
 Number of terms: 512  
 Offset: 1

Sequence: 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0,  
 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0,  
 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0,  
 0, 0, 0, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0

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Sequence: A318937  
 Name: a(n) = 16 times the sum of the cubes of the divisors of 2\*n+1.

$$\frac{3\pi^2\sqrt{2}}{\Gamma\left(\frac{3}{4}\right)^8 e^{-\frac{\pi}{2}}}$$

Printed:  $3*\pi^2/\text{GAMMA}(3/4)^8/\exp(-1/2*\pi)*2^{(1/2)}$   
 Value: 39.6144664519054076714475  
 Number of terms: 512  
 Offset: 0

Sequence: 16, 448, 2016, 5504, 12112, 21312, 35168, 56448, 78624, 109760,  
 154112, 194688, 252016, 327040, 390240, 476672, 596736, 693504, 810464,  
 984704, 1102752, 1272128, 1526112, 1661184, 1887888, 2201472, 2382048,  
 2685312, 3073280, 3286080, 3631712, 4166528, 4431168, 4812224

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Sequence: A319078  
 Name: Expansion of  $\phi(-q) * \phi(q)^2$  in powers of  $q$  where  $\phi()$  is a Ramanujan theta function.

$$\frac{\pi^{3/4} 2^{3/4}}{2 \Gamma\left(\frac{3}{4}\right)^3}$$

Printed:  $1/2*\pi^{(3/4)}*2^{(3/4)}/\text{GAMMA}(3/4)^3$   
 Value: 1.07833454717979986081186  
 Number of terms: 67  
 Offset: 0

Sequence: 1, 2, -4, -8, 6, 8, -8, 0, 12, 10, -8, -24, 8, 8, -16, 0, 6, 16, -12, -24,  
 24, 16, -8, 0, 24, 10, -24, -32, 0, 24, -16, 0, 12, 16, -16, -\n  
 48, 30, 8, -24, 0, 24, 32, -16, -24, 24, 24, -16, 0, 8, 18, -28, -48, 24, 24, -32,  
 0, 48, 16, -8, -72, 0, 24, -32, 0, 6, 32

---

Sequence: A319294  
 Name: Expansion of  $128 * ((\theta_3(q)^4 + \theta_4(q)^4)/\theta_2(q)^8 + (\theta_4(q)^4 - \theta_2(q)^4)/\theta_3(q)^8)$  in powers of  $q = \exp(\pi i t)$ .

$$\frac{768 \Gamma\left(\frac{3}{4}\right)^4}{\pi e^{2\pi}}$$

Printed:  $768/\pi*\text{GAMMA}(3/4)^4/\exp(2*\pi)$   
 Value: 1.02942289164753278151656  
 Number of terms: 512  
 Offset: -2

Sequence: 1, 0, 144, -5120, 70524, -626688, 4265600, -24164352, 119375370,  
 -529539072, 2151757440, -8125793280, 28827864296, -96885780480,  
 310514729472, -954123868160, 2823202073655, -8074060259328,  
 22387521828480, -60344692402176, 158484892943628, -406368240128000,  
 1019049374174976

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Sequence: A319306

Name: Expansion of  $(7 * \theta_4(q)^{20} * \theta_2(q)^8 + 7 * \theta_4(q)^{24} * \theta_2(q)^4 + 2 * \theta_4(q)^{28}) / (2 * \delta^2)$  in powers of  $q = \exp(\pi i t)$ , where  $\delta$  is A000594.

$$\frac{1048576 \Gamma\left(\frac{3}{4}\right)^{20}}{\pi^5 e^{4\pi}}$$

Printed: 1048576/Pi^5\*GAMMA(3/4)^20/exp(4\*Pi)

Value: .696660270536682561991407

Number of terms: 512

Offset: -4

Sequence: 1, 0, -232, 0, 86064, -1835008, 23619232, -229638144,  
1841202076, -12765888512, 78856617456, -442924793856, 2295931514240, -  
\ 11106754756608, 50583249259456, -218397947199488, 899050944837546, -  
3545383150551040, 13446464974112552, -49213617532305408  
-----

Sequence: A319307

Name: Expansion of  $\theta_4(q)^{16}$  in powers of  $q = \exp(\pi i t)$ .

$$\frac{\pi^4}{16 \Gamma\left(\frac{3}{4}\right)^{16}}$$

Printed: 1/16\*Pi^4/GAMMA(3/4)^16

Value: .235471733167395309424739

Number of terms: 512

Offset: 0

Sequence: 1, -32, 480, -4480, 29152, -140736, 525952, -1580800, 3994080, -  
8945824, 18626112, -36714624, 67978880, -118156480, 197120256, -  
321692928  
, 509145568, -772845120, 1143441760, -1681379200, 2428524096, -  
3392205824, 4658843520, -6411152640, 8705492608, -11488092896  
-----

Sequence: A319308

Name: Expansion of  $\theta_4(q)^{20}$  in powers of  $q = \exp(\pi i t)$ .

$$\frac{\pi^5}{32 \Gamma\left(\frac{3}{4}\right)^{20}}$$

Printed: 1/32\*Pi^5/GAMMA(3/4)^20  
 Value: .164030071989356139105803  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -40, 760, -9120, 77560, -497648, 2508000, -10232640,  
 34729720, -100906760, 259114704, -606957280, 1327461600, -2738111280,  
 5341699520,  
 -9915552192, 17701924600, -30615844560, 51294999960, -83279292960,  
 131880275664, -204949382400, 312126610080, -464844224960,  
 680432137440

Sequence: A319309  
 Name: Expansion of theta\_4(q)^24 in powers of q = exp(Pi i t).

$$\frac{\pi^6}{64 \Gamma\left(\frac{3}{4}\right)^{24}}$$

Printed: 1/64\*Pi^6/GAMMA(3/4)^24  
 Value: .114263670441097721877951  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -48, 1104, -16192, 170064, -1362336, 8662720, -44981376,  
 195082320, -721175536, 2319457632, -6631997376, 17231109824, -  
 41469483552,  
 93703589760, -200343312768, 407488018512, -793229226336,  
 1487286966928, -2697825744960, 4744779429216, -8110465650176

Sequence: A319310  
 Name: Expansion of theta\_4(q)^28 in powers of q = exp(Pi i t).

$$\frac{\pi^7}{128 \Gamma\left(\frac{3}{4}\right)^{28}}$$

Printed: 1/128\*Pi^7/GAMMA(3/4)^28  
 Value: .795962973394232319301125e-1  
 Number of terms: 512  
 Offset: 0

Sequence: 1, -56, 1512, -26208, 327656, -3147984, 24189984, -152867520,  
 811401192, -3681079640, 14500933104, -50376047904, 156797510688, -\  
 444306558864, 1163495873088, -2851049839680, 6597606440936, -  
 14512424533488, 30505974273096, -61591664700384, 119983597365744, -  
 226303038736128

Sequence: A319552

Name: Expansion of  $1/\theta_4(q)^3$  in powers of  $q = \exp(\pi i t)$ .

$$\frac{\Gamma\left(\frac{3}{4}\right)^3 2^{3/4}}{\pi^{3/4}}$$

Printed:  $1/\pi^{(3/4)}*\text{GAMMA}(3/4)^3*2^{(3/4)}$

Value: 1.31147941617165978854279

Number of terms: 512

Offset: 0

Sequence: 1, 6, 24, 80, 234, 624, 1552, 3648, 8184, 17654, 36816, 74544,  
147056, 283440, 535008, 990912, 1803882, 3232224, 5707624, 9943536,  
17106960, 29088352, 48922320, 81438528, 134261584, 219336630,  
355242288, 570675904, 909674688, 1439394192, 2261635168, 3529838208

Sequence: A319553

Name: Expansion of  $1/\theta_4(q)^8$  in powers of  $q = \exp(\pi i t)$ .

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^8}{\pi^2}$$

Printed:  $4/\pi^2*\text{GAMMA}(3/4)^8$

Value: 2.06077515502864631635693

Number of terms: 512

Offset: 0

Sequence: 1, 16, 144, 960, 5264, 25056, 106944, 418176, 1520784, 5201232,  
16871648, 52252992, 155341248, 445226848, 1234726272, 3323392128,  
8704504976, 22234655520, 55498917840, 135595345600, 324759439584,  
763505859072, 1764050361152, 4009763323008, 8975341703616,  
19800832628336

Sequence: A319554

Name: Expansion of  $1/\theta_4(q)^{12}$  in powers of  $q = \exp(\pi i t)$ .

$$\frac{8 \Gamma\left(\frac{3}{4}\right)^{12}}{\pi^3}$$

Printed:  $8/\pi^3*\text{GAMMA}(3/4)^{12}$

Value: 2.95832521157700345043614

Number of terms: 512  
Offset: 0

Sequence: 1, 24, 312, 2912, 21816, 139152, 783328, 3986112, 18650424,  
81251896, 332798544, 1291339296, 4776117216, 16922753616,  
57683178432,  
189821722688, 604884735288, 1871370360240, 5633654421720,  
16535803556064, 47405095227984, 132942579098368, 365211946954656  
-----

Sequence: A320049  
Name: Expansion of (psi(x) / phi(x))^6 in powers of x where phi(), psi() are  
Ramanujan theta functions.

$$\frac{2^{1/4}}{16 e^{-\frac{3\pi}{4}}}$$

Printed: 1/16/exp(-3/4\*Pi)\*2^(1/4)  
Value: .784187258591654745930894  
Number of terms: 512  
Offset: 0

Sequence: 1, -6, 27, -98, 309, -882, 2330, -5784, 13644, -30826, 67107, -  
141444, 289746, -578646, 1129527, -2159774, 4052721, -7474806, 13569463,  
-\  
24274716, 42838245, -74644794, 128533884, -218881098, 368859591, -  
615513678, 1017596115, -1667593666, 2710062756, -4369417452  
-----

Sequence: A320050  
Name: Expansion of (psi(x) / phi(x))^7 in powers of x where phi(), psi() are  
Ramanujan theta functions.

$$\frac{2^{5/8}}{32 e^{-\frac{7\pi}{8}}}$$

Printed: 1/32/exp(-7/8\*Pi)\*2^(5/8)  
Value: .753048726793527213291862  
Number of terms: 512  
Offset: 0

Sequence: 1, -7, 35, -140, 483, -1498, 4277, -11425, 28889, -69734, 161735, -  
362271, 786877, -1662927, 3428770, -6913760, 13660346, -26492361,  
50504755, -94766875, 175221109, -319564227, 575387295, -1023624280,  
1800577849, -3133695747, 5399228149, -9214458260, 15584195428  
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Sequence: A322437





Value: .348734235620899549177518e-5  
 Number of terms: 378  
 Offset: 0

Sequence: 0, 0, 1, 0, 1,  
 0,  
 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1,  
 1, 0

Sequence: A330373  
 Name: Sum of all parts of all self-conjugate partitions of n.

$$\frac{2^{1/4}}{24 e^{\frac{\pi}{24}}}$$

Printed: 1/24/exp(1/24\*Pi)\*2^(1/4)  
 Value: .434707609435286255219950e-1  
 Number of terms: 512  
 Offset: 0

Sequence: 0, 1, 0, 3, 4, 5, 6, 7, 16, 18, 20, 22, 36, 39, 42, 60, 80, 85, 90, 114,  
 140, 168, 176, 207, 264, 300, 312, 378, 448, 493, 540, 620, 736,  
 825, 884, 1015, 1188, 1295, 1406, 1599, 1840, 2009, 2184, 2451, 2772, 3060,  
 3312, 3666, 4176, 4557, 4900, 5457, 6084, 6625, 7182, 7920, 8792, 9576,  
 10324, 11328, 12540

Sequence: A330643  
 Name: a(n) is the number of partitions of n with Durfee square of size <= 5.

$$\frac{\sqrt{2} \Gamma\left(\frac{3}{4}\right)}{\pi^{1/4} e^{\frac{\pi}{12}}}$$

Printed: 2^(1/2)/Pi^(1/4)\*GAMMA(3/4)/exp(1/12\*Pi)  
 Value: 1.00187443701462404338486  
 Number of terms: 53  
 Offset: 0

Sequence: 1, 1, 2, 3, 5, 7, 11, 15, 22, 30, 42, 56, 77, 101, 135, 176, 231, 297,  
 385, 490, 627, 792, 1002, 1255, 1575, 1958, 2436, 3010, 3718, 4565,  
 , 5604, 6842, 8349, 10143, 12310, 14883, 17976, 21635, 26010, 31175,  
 37318, 44547, 53109, 63153, 74996, 88850, 105113, 124078, 146256, 172032,  
 202056,  
 236844



3541928, 5515900, 8519173, 13055208, 19859113, 29998024, 45012751,  
67116436, 99472320, 146580028, 214811311, 313149460

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Sequence: A350643

Name: Expansion of Product\_{k=1} (1-q^(2\*k))^2/(1-q^k)^7.

$$\frac{2 \Gamma\left(\frac{3}{4}\right)^5 2^{5/8}}{\pi^{5/4} e^{\frac{\pi}{8}}}$$

Printed: 2/Pi^(5/4)\*GAMMA(3/4)^5/exp(1/8\*Pi)\*2^(5/8)

Value: 1.37596800430559075787479

Number of terms: 512

Offset: 0

Sequence: 1, 7, 33, 126, 419, 1260, 3509, 9185, 22842, 54395, 124784,  
277059, 597644, 1256341, 2580363, 5189185, 10236710, 19840410,  
37832553,  
71060190, 131610897, 240585292, 434431132, 775483785, 1369359198,  
2393425484, 4143057525, 7106240582, 12083072562, 20375932566

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Sequence: A350644

Name: Expansion of Product\_{k=1} (1-q^(2\*k))^3/(1-q^k)^10.

$$\frac{4 \Gamma\left(\frac{3}{4}\right)^7 2^{1/4}}{\pi^{7/4} e^{\frac{\pi}{6}}}$$

Printed: 4/Pi^(7/4)\*GAMMA(3/4)^7/exp(1/6\*Pi)\*2^(1/4)

Value: 1.57723251813455419148611

Number of terms: 512

Offset: 0

Sequence: 1, 10, 62, 300, 1235, 4522, 15130, 47084, 137990, 384370,  
1024760, 2629380, 6521693, 15693180, 36745810, 83935920, 187441365,  
409981826,  
879717860, 1854439520, 3845126929, 7850815860, 15799770260,  
31368976420, 61490409175, 119092108534, 228039325630

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Sequence: A353294

Name: A generator matrix for the Leech lattice, multiplied by sqrt(8), read by rows.

Printed: 8  
Value: 8.  
Number of terms: 512  
Offset: 1

Sequence: 8, 0, 4, 4,  
0,  
0, 0, 4, 0, 4, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

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Sequence: A353473  
Name: a(n) = 1 if n is a number of the form p \* q^2, where p and q are primes with p < q, otherwise 0.

$$\frac{1}{e^{34\pi}}$$

Printed: 1/exp(34\*Pi)  
Value: .408511201368675678263749e-46  
Number of terms: 512  
Offset: 1

Sequence: 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0,  
0,  
0, 0, 0, 1, 0, 1, 0,  
0,  
0, 1, 0

---

Sequence: A353625  
Name: a(n) = 1 if n is divisible by the squares of two distinct primes, otherwise 0.

$$\frac{1}{e^{70\pi}}$$

Printed: 1/exp(70\*Pi)  
Value: .311641460556729386226419e-95  
Number of terms: 512  
Offset: 1

Sequence: 0,  
0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
0, 1, 0, 0, 0, 0,  
0,  
0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

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Sequence: A354995  
Name: a(n) = A354933(n) - A034699(n).





## Références :

- [1] Le catalogue des suites d'entier : <https://oeis.org/> pour tous les numéros de suites apparaissant dans ce document.
- [2] Fonction Tau de Ramanujan : <https://mathworld.wolfram.com/TauFunction.html>
- [3] Fonction de Partition : <https://mathworld.wolfram.com/PartitionFunctionP.html>
- [4] Sommes de carrés : <https://mathworld.wolfram.com/SumofSquaresFunction.html>
- [5] Séries Theta : <https://mathworld.wolfram.com/ThetaSeries.html>