

THE FOUR FOURS GAME

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September 19, 2021

Version 4.00



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Please read ***Document History*** (page ii) for the original publication dates for all past and current versions of ***The Four Fours Game***. BTW, this document is set up for two-sided printing.

The font for the cover text and a few other headings is **MathSoftText**, which came with Mathcad 8.0 (c.1998).

DEDICATION

This booklet is dedicated to Mr. Sherard, *Math Teacher Extraordinaire*, at the old Sierra Junior High School in Fresno, California. Mr. Sherard introduced me and my Algebra I classmates to **The Four Fours Game** in the Fall of 1971. Mr. Sherard was also one of the best teachers I had at any level, from Kindergarten through college.

This booklet is also dedicated to my father, the engineer/high school chemistry teacher/National Guard helicopter pilot, who showed me the factorial function and a few others; to my mother, the math major, who helped with some of the harder solutions; to my friend Scott Endler, who competed with me for top honors in the game; and, to my wife, three children, and now six grandchildren, who put up with all this nonsense.

Any mistakes herein are mine alone, of course. However, I *am* actively looking for someone else to blame. ☺

DOCUMENT HISTORY

Version 1.00, April 24, 1993: I prepared Version 1.00 of this treatise with Microsoft Word for Windows 2.0 and some of its goodies, including the Equation Editor and WordArt, operating under MS-DOS 5.0 and Windows 3.1 on a Standard Technologies 486-33 with 8MB RAM. Even with a really big swap file, this wasn't always enough RAM; documents with lots of equations often behaved very badly during editing, sometimes crashing Word or even the computer. Version 1.00 included solutions for 1–200, with a minimum of 3 solutions for 1–100 and a minimum of 1 solution for 101–200. The Equation Editor is what inspired me to finally convert my handwritten notes and solutions into a publishable form. Years before, I had briefly experimented with, then rejected, using a typewriter for this purpose.

Version 2.00, July 7, 1998: I prepared Version 2.00 with Microsoft Word for Windows 6.0 operating under Windows 95 on a Gateway 2000 P5-90 with 24 MB RAM (which also wasn't always enough RAM). Version 2.00 added a little to the *Introduction*, 9 more solutions for 1–100, and 3 more solutions for 101–200. The biggest addition was Section III (201–300) with 190 solutions.

Version 3.30, January, 25, 2012: After a long hiatus, I resumed work in December 2011 with Microsoft Word 2010 operating under Windows 7 on a 3.0-GHz Dell Dimension 8400 with 2.0 GB of RAM (again, not always enough). Besides updating the *Introduction* and adding more solutions, a key task was replacing all the old Equation Editor objects with new Equation Editor objects. Now the documents are happy unless I am editing equations with several documents open at once. As soon as that was done, I printed Version 3.00 for my nephew, who was a newly minted math teacher. Versions 3.10 and 3.20 were subsequent intermediate levels of completion given to other math and science teachers I know. For Version 3.30, I created many more solutions in Section III (now 469 solutions). I published Version 3.30 on Scribd.com and in the PTC Mathcad forums and provided paper copies to a few more teachers.

Version 4.00, September 19, 2021: On the heels of publishing Version 3.30, I jumped right in to the solutions above 300. However, other demands on my time eventually halted progress and another long hiatus ensued. I am still using the same computer (so sad), but now it has 3.0 GB of RAM. A new computer is coming eventually, but not until the kitchen remodel is done and a new Jeep is in the garage. Version 4.00 includes many improvements and many more partial and full solutions.

THE FOUR FOURS GAME

Version 4.00

TABLE OF CONTENTS

	Page	
Copyright	i	
Dedication	ii	
Document History	ii	
INTRODUCTION	Page	
OBJECT	1	
PURPOSE	1	
HISTORY	2	
RULES	4	
USEFUL TABLES	12	
<i>MISCELLANEOUS OPERATIONS & FUNCTIONS</i>	13	
<i>SOME PARTIAL SOLUTIONS WITH ONE FOUR (132)</i>	17	
<i>SOME PARTIAL SOLUTIONS WITH TWO FOURS (593)</i>	21	
REFERENCES	38	
PARTING SHOTS	39	
SOLUTIONS	Numbers of Solutions	Range
SECTION I	852	1–100
SECTION II	727	101–200
SECTION III	797	201–300
SECTION IV	723	301–400
SECTION V*	347	401–500
SECTION VI**	—	501–600
SECTION VII**	—	601–700
SECTION VIII**	—	701–800
SECTION IX**	—	801–900
SECTION X**	—	901–1,000
APPENDIX**	—	> 1,000
Total: 3,446		

*In progress and included in this version of the document.

**In progress and *not* included in this version of the document.

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THE FOUR FOUPS GAME

INTRODUCTION

OBJECT

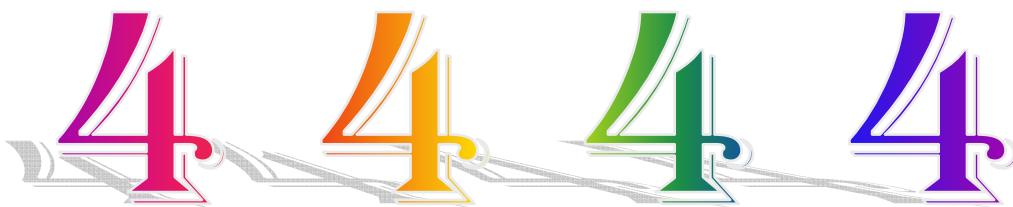
The object of **The Four Fours Game**¹ is to create every whole number (i.e. positive integer) beginning with 1, using only four fours (4s) and standard mathematical operations, symbols, and notation. Simple solutions² and clever and intricate solutions are equally worthy of note. However, **Four Fours** aficionados prefer the simpler solutions for “aesthetic reasons.”

PURPOSE

The *raison d'être* for **The Four Fours Game** is that there are too many extant fours. Original research by J.A. Lusk (1984) concluded that *one* is indeed the loneliest number, whilst *fours* are found in great abundance. The purpose of this game, then, is to spread these extra fours amongst the other numbers, thus eliminating mathematical discrimination and possibly homelessness.

The purpose of this treatise is fourfold: [1] to document the status of my own solutions library, [2] to provide a large number of solutions for **The Four Fours Game**, [3] to provide a variety of other relevant and useful information, and [4] to assist aficionados of **The Four Fours Game**, as well as mathematics teachers who use the game in the classroom. You know who you are. I can't compete with David Wheeler's awesome ***The Definitive Four Fours Answer Key*** (see *References*), but I trust that my treatise will find its place in **The Four Fours Game** pantheon.

For numbers 1–300, I provide at least three solutions.³ Beyond 300, I provide at least one solution. Most of the solutions for 1–100 and all of the solutions beyond 100 I developed myself.⁴ My solutions are not necessarily unique (see *References*), but I have not otherwise knowingly copied other people's work. My solutions for each number are representative, not exhaustive, and other solutions likely exist. Where more than one solution is provided, the simpler ones are generally shown first, but not always. The sky is the limit, but for now I am concentrating on developing solutions for 1–1,000, and in most cases multiple solutions.



¹ Or: *The Four 4[']s Game*, *The 4 Fours Game*, and *The Fours Game*. In the Internet age, TFFG seems appropriate. Some authors use “Puzzle” or “Problem” instead of “Game”, although “Obsession” might be a better choice.

² That is, those using the more elementary operations, symbols, and notations.

³ For 1–100, at least one solution is in the form of a square root.

⁴ Unfortunately, after all these years, I am unable to properly credit most of the solutions provided by others.

HISTORY

The Four Fours Game has a long and lively history. In the January 1964 issue of *Scientific American*, Martin Gardner, author of the column *Mathematical Games*, provided the following history and explanation of **The Four Fours Game**, to which I have added a few pertinent footnotes. This particular column, which I first saw about 1978,⁵ was based on an imaginary conversation with Gardner's imaginary friend, "Dr. Matrix."

...“It occurred to me,” I said, hoping to change the subject, “that because the new year ends with 4 it might be an appropriate time to introduce my readers to the old pastime of the four 4's. Do you know the game?”

Dr. Matrix sighed painfully. “I know it well.”

Let me first explain the recreation. One seeks to form as many whole numbers as possible, starting with 1, by using only the digit 4 four times—no more, no less—together with simple mathematical symbols. Naturally one must establish what is meant by a “simple” symbol. This traditionally includes the arithmetic signs for addition, subtraction, multiplication, and division, together with the square root sign (repeated as many finite times as desired), parentheses, decimal points, and the factorial sign. (Factorial n is written $n!$. It means $1 \times 2 \times 3 \times \dots \times n$.) A decimal point may also be placed above .4, in which case it indicates the repeating decimal .4444 ..., or $4/9$.⁶

The numbers 1 through 10 are easily expressed, in many different ways, by using no more than the symbols for multiplication, division, addition, and/or subtraction [see illustration...]. By adding the square root sign, numbers 11 through 20 (except for 19) are readily obtained. By allowing the factorial sign and the dot used as both a decimal point and a repeating decimal sign, one can go to 112. There seems to be no way to express 113⁷ within these restrictions unless one employs highly bizarre combinations of the above symbols, such as the combined square root, decimal, and repeated decimal signs in the denominator of the first term in the following equation:⁸

$$\frac{4!}{.\overline{\sqrt{4}}} + \frac{\sqrt{4}}{.4}$$

The pastime was first mentioned in the issue for December 30—in the palindromic, invertible year 1881—of a lively London Weekly that had been founded that year by the astronomer Richard Anthony Proctor. He called his periodical *Knowledge: An Illustrated Magazine of Science, Plainly Worded—Exactly Described*. A letter to the editor expressed astonishment at the fact (shown to the writer by a friend) that all integers from 1 through 20, except 19, could be expressed by four 4's and simple signs. Factorials and dots were not allowed. Readers were asked to try their hand at it before solutions were given in a later (January 13) issue. (With the help of the factorial sign, 19 can be expressed: $4! - 4 - 4/4$. Can the reader of *this* periodical find a way to do it by using only the four arithmetical signs and the decimal point?)

Since 1881 the game has enjoyed occasional revivals. A lengthy article on the topic, by W. W. Rouse Ball, appeared in the *Mathematical Gazette* for May, 1912, and there have been scores of subsequent articles, including tables that go above 2,000. Even now the mania will

⁵ Seven years after my own introduction to **The Four Fours Game**.

⁶ I use a bar over the number instead of a dot to indicate a repeating decimal.

⁷ Not quite true; see my solutions.

⁸ Combining the symbols in this way (e.g. $.\overline{\sqrt{4}}$) doesn't follow any normal mathematical convention, which is why it isn't allowed.

suddenly seize the employees of an office or laboratory, sometimes causing a work stoppage that lasts for days.

"Is it possible," I asked Dr. Matrix, "to express 1964 with four 4's and the traditional symbols?"

He shook his head vigorously. "Of course many important dates *are* possible. 1776 is 4 times 444. But 1964 is not one of them. With five 4's, yes." He jotted on my note pad:

$$44^{\sqrt{4}} + 4! + 4$$

"But four 4's, no."

"How about 64?"

"That," said Dr. Matrix, "is not difficult. Oddly enough 64 can also be expressed—under the traditional restrictions, of course—with three 4's and also with two."

The reader is invited to try his skill on all three problems; that is, to express 64 with four 4's, with three 4's, and with two 4's. No symbols may be used other than those that have been mentioned. The task is middling hard with four 4's, ridiculously easy with three, extremely difficult with two. Next month⁹ I shall give the best solutions known to Dr. Matrix."...

Gardner also gave the following solutions with this column, except for 19, which was provided in the next issue. Note that, while each of these solutions is very simple, I did not come up with all of them myself (see Section I). Obviously, there are many ways to skin this cat.

$1 = \frac{44}{44}$	$6 = 4 + \frac{4+4}{4}$	$11 = \frac{44}{\sqrt{4} + \sqrt{4}}$	$16 = 4 + 4 + 4 + 4$
$2 = \frac{4}{4} + \frac{4}{4}$	$7 = \frac{44}{4} - 4$	$12 = \frac{44 + 4}{4}$	$17 = (4 \times 4) + \frac{4}{4}$
$3 = \frac{4+4+4}{4}$	$8 = 4 + 4 + 4 - 4$	$13 = \frac{44}{4} + \sqrt{4}$	$18 = (4 \times 4) + 4 - \sqrt{4}$
$4 = 4(4 - 4) + 4$	$9 = 4 + 4 + \frac{4}{4}$	$14 = 4 + 4 + 4 + \sqrt{4}$	$19 = \frac{4+4-.4}{.4}$
$5 = \frac{(4 \times 4) + 4}{4}$	$10 = \frac{44 - 4}{4}$	$15 = \frac{44}{4} + 4$	$20 = (4 \times 4) + \sqrt{4} + \sqrt{4}$

I first met **The Four Fours Game** in the fall of 1971, while in 8th grade. One morning I walked in to Algebra I to see $1 = \frac{44}{44}$ on the chalkboard. Obvious, of course, but I was confused. Mr. Sherard then asked, "What's two?" Now I was more confused. We didn't quite understand what he meant until someone finally came up with $2 = \frac{4}{4} + \frac{4}{4}$. Under Mr. Sherard's guidance, we "discovered" the rules, and then we quickly solved 3 through 10, but stalled at 11. Mr. Sherard then made it a contest: whoever solved 11 would get an ice cream at the campus canteen. This he did for each day's stumper. He used the game to teach algebra and creative thinking, as well as to stimulate interest in math—thus the contest.

⁹ i.e., the February 1964 issue of *Scientific American*.

Soon, however, only two of us were really still “in the game”: Scott Endler (3rd Period) and I (2nd Period).¹⁰ We each tried very hard to beat the other to the next solution. Sometimes Scott would win and sometimes I would win. I learned about the factorial function first, so that gave me an early edge. We discovered that the prime numbers were usually the hardest, and that odd numbers were usually harder than even numbers. Our two most challenging solutions within the first 100 integers were 71 and 73. I remember one day, while waiting for the school bus, telling Scott that I had 73. He tried everything he could think of to con me out of my solution, but to no avail. I actually had two solutions, but one was based on $\sqrt{4} = \bar{2}$, which is stretching the rules because the square root operation returns a number, not a digit. Mr. Sherard eventually dropped the game as general interest waned. Personally, I found the game an ideal introduction to recreational mathematics, as well as a stimulus to my own mathematical education. It’s also a great time-waster and it easily beats doing yard work.

RULES

- The object of **The Four Fours Game** is to create every positive integer beginning with 1, using only four fours (4s) and standard mathematical operations, symbols, and notation.
- Only fours (4) may be used as digits and numerals; no other numbers (including π and e) and no variables.
- Only four fours (4, 4, 4, and 4) may be used as digits and numerals—no more, no less.
- Only standard mathematical operations, symbols, and notation may be used, and they must be used in standard ways (e.g. the “output” is a number, not a digit for concatenation). The list of operations below is representative, but not exhaustive.

Symbols	Operations*	Formulations and Examples
n	Numbers & Digits	4
nn		44
nnn		444
$nnnn$		4444
$.n$	Decimals	$.4 = \frac{4}{10} = \frac{2}{5}$
$.nn$		$.44 = \frac{44}{100} = \frac{11}{25}$
$n.n$		$4.4 = \frac{44}{10} = \frac{22}{5}$
etc.		$44.4 = \frac{444}{10} = \frac{222}{5}$

¹⁰ Our “unfair advantage” was that both our fathers were engineers and my mother had been a math major until she dropped out of college to marry my dad. In college, Scott majored in Geophysics while I majored in Civil Engineering. Scott was also a whiz at mental arithmetic (far better than me) and an accomplished multi-sport athlete in high school and college, including first place in the discus at the 1976 California State Track Meet.

Symbols	Operations*	Formulations and Examples
. \bar{n} .̄ $n.\bar{n}$	Repeating Decimal I use the overline herein instead of the overdot.	$. \bar{4} = \frac{4}{9}$ $4.\bar{4} = \frac{40}{9}$
() [] { }	Parenthesis, Brackets, & Braces These are used for grouping. I purposely overuse these so that a detailed understanding of the order of operations is not required.	$4 \cdot [4! + (4 \cdot 4!!)] = 224$ $\{(4 \times 4!) + 4\} \cdot 4!! = 800$
+	Addition	$4 + 4 = 8$
-	Subtraction	$44 - 4 = 40$
\times	Multiplication	$4 \times 4 \times 4 = 64$
.		$44 \cdot 4 = 176$ Also implied multiplication: $(4)(4) = 16$
\div /	Division I usually use stand up fractions, but I will sometimes opt for the other forms for formatting purposes.	$44 \div 4 = 11$ $444/4 = 111$ $4!$ $\frac{4}{.4} = 54$
\sqrt{x} $\sqrt{\sqrt{x}}$ $\sqrt[y]{x}$	Square Root, Nested Square Roots, & Other Roots	$\sqrt{4} = 2$ $\sqrt{\sqrt{4^{4!}}} = \sqrt[4]{4^{4!}} = 4,096$ $\sqrt[4]{4 \times 4 \times 4} = 32,768$ $\sqrt[.4]{4 \times 4} = 512$
x^y	Powers[†]	$4^4 = 256$ $44^{\sqrt{4}} = 1,936$ $(4^4)^4 = 4,294,967,296$ $4^{(4^4)} = 1.3408 \dots \times 10^{154}$
$x\%$ $x\%\%$...etc.	Percent When used as an operator, % simply means to divide by 100. The per mille sign (‰) and the per ten thousand sign (‰‰) can also be used in similar fashion. The per ten thousand sign is equivalent to two back-to-back percent signs, and thus is redundant. The percent operator is a symbol, so the apparent zeros don't count as zeros.	$4\% = 0.04 = \frac{1}{25}$ $(4!) \% = 0.24 = \frac{6}{25}$ $4\%\% = (4\%) \% = 0.0004 = \frac{1}{2,500}$ $4\%\% = 0.004 = \frac{1}{250}$

Symbols	Operations*	Formulations and Examples
$x!$	Factorial [†] See also page 10.	$x! = \prod_{i=1}^x i = \prod(x)$ $= x(x - 1)(x - 2) \cdots 3 \times 2 \times 1$ $4! = 4 \times 3 \times 2 \times 1 = 24$ $(4 + \sqrt{4})! = 720$
$\Gamma(x)$	Gamma Function [†] See also page 10.	For positive integers, $\Gamma(x) = (x - 1)!$ $\Gamma(4) = 3! = 6$ $\Gamma(\Gamma(4)) = 120$
$x!!$	Double Factorial [†] I first saw the Double Factorial function in <i>Engineering Mathematics Handbook</i> , Jan J. Tuma, McGraw Hill (1979), but no explanation was provided. Note that the functions for odd and even numbers are <i>not</i> coincident: the curve for odd numbers tracks slightly below the curve for even numbers. My research indicates that the origin of these functions is obscure, but they apparently have some use in statistics and a few other fields that are not called civil engineering.	For $x = \text{even number}$: $x!! = (2n)!!$ $= 2n(2n - 2)(2n - 4) \cdots 6 \times 4 \times 2$ $= 2^n n! = 2^n \Gamma(n + 1)$ $4!! = 8 [n = 2]$ For $y = \text{odd number}$: $y!! = (2n - 1)!!$ $= (2n - 1)(2n - 3) \cdots 5 \times 3 \times 1$ $= 2^n \frac{\Gamma(n + \frac{1}{2})}{\sqrt{\pi}}$ $(4/. \bar{4})!! = 9!! = 945 [n = 5]$
$x!!!, x!!!!, x!!!!!, \text{ etc.}$	Multifactorial [†] I first learned about Multifactorials in 2013, about a year after publishing v3.30 of <i>The Four Fours Game</i> . According to the abstract for the article <i>Multifactorial functions in fuzzy sets theory</i> by L.I. Hongxing, published on sciencedirect.com, “The multifactorial function is a very important new concept which can be used to many aspects in fuzzy sets theory. It appeared firstly in [5] where it was used to define fuzzy perturbation function and where the stability for the solutions of fuzzy relation equations by using fuzzy perturbation was studied.” The only “fuzzy sets” I am familiar with are the tribbles from the original Star Trek television show. I have no idea what “[5]” is and I am not willing to buy a subscription to find out. ☺	The Factorial, Double Factorial, and Multifactorial functions are generalized by the following recursive algorithm: For $n \geq 0$, $n!^{(k)} = \begin{cases} n & \text{for } n \leq k \\ n \cdot ((n - k)!^{(k)}) & \text{for } n > k \end{cases}$ The index (k) defines the level of the factorial (and also the number of exclamation points), so $k = 1$ is the Factorial ($n!$), $k = 2$ in the Double Factorial ($n!!$), $k = 3$ is the “Triple Factorial” ($n!!!$), and so on. $(4!!)!! = 384$ $(4!!)!!! = 80$ $(4!!)!!!! = 32$

Symbols	Operations*	Formulations and Examples
$!x$	Subfactorial [†] I first learned about Subfactorials in January 2021 when I began work on v4.00 of <i>The Four Fours Game</i> . According to Wikipedia, “In combinatorial mathematics, a derangement is a permutation of the elements of a set, such that no element appears in its original position. In other words, a derangement is a permutation that has no fixed points. The number of derangements of a set of size n is known as the subfactorial of n or the n -th derangement number... ”	$!x = (x - 1) \times (!x - 1) + !(x - 2)$ $!4 = 3 \times (!3 + !2) = 3 \times (2 + 1) = 9$ $!(4!!) = !8 = 7 \times (!7 + !6)$ $= 7 \times (1,854 + 265) = 14,833$ <p>Here is an interesting feature of the Subfactorial function:</p> $\lim_{n \rightarrow \infty} \left(\frac{n!}{!n} \right) = e = 2.718281828459\dots$ <p>By $n = 9$, the first five decimal points are correct and by $n = 14$, the first ten are correct.</p>
$\Sigma(x)$	Summation Function [†] For the special case of summing consecutive integers from 1 to x , the sigma operator can be written with just the x instead of with an index variable and upper and lower limits of summation. This is analogous to the syntax for Factorial. See also page 10.	$\Sigma(x) = \sum_{i=1}^x i = \frac{x(x + 1)}{2}$ $\Sigma(4) = 4 + 3 + 2 + 1 = 10$ $\Sigma(\Sigma(4)) = 55$ $\Sigma(44) = 990$ $\Sigma(444) = 98,790$ $\Sigma(4444) = 9,876,790$
$\log(x)$ $\ln(x)$	Common and Natural Logarithms Except as described in the footnote, [‡] most logarithms are not very useful without the disallowed Integer, Floor, and Ceiling functions.	$\log(44) = 1.643\dots$ $\log\left(\frac{4}{4\%}\right) = 2$ $\ln(4) = 1.386\dots$
$a\log(x)$ $a\ln(x)$	Antilogarithms The base 10 antilogarithms are useful; the natural antilogarithms are not.	$a\log(x) = 10^x$ $a\log(4) = 10,000$ $a\ln(x) = e^x$ $a\ln(4) = 54.598\dots$
$\sin(x)$ $\cos(x)$ $\tan(x)$...etc.	Trigonometric Functions Trig functions have very limited use. All trig and inverse trig functions used herein assume degrees. Radians would be useless and grads are obscure.	$44 \times \sin\left(\sqrt{\frac{4}{.4\%}}\right) = 22$
$\arcsin(x)$ $\arccos(x)$ $\arctan(x)$...etc.	Inverse Trigonometric Functions A few inverse trig functions are useful. Note that trig^{-1} introduces a non-4 number. For simplicity, “arc...” will be shortened to the common “a...”	$\text{atan}\left(\frac{4}{4}\right) = 45$

Symbols	Operations*	Formulations and Examples
$\sinh(x), \text{asinh}(x)$ $\cosh(x), \text{acosh}(x)$ $\tanh(x), \text{atanh}(x)$	Hyperbolic Functions and their Inverses These are not very useful.	$\cosh(.4) = 1.081 \dots$
$\begin{vmatrix} a & b \\ c & d \end{vmatrix}$	Determinate Redundant	$\begin{vmatrix} 4! & \sqrt{4} \\ 4 & 4!! \end{vmatrix} = (4! \times 4!!) - (4 \times \sqrt{4}) = 184$
$\binom{n}{k}$	Binomial Coefficient	$\binom{n}{k} = C(n, k) = \frac{n!}{(n - k)! k!}$
nC_k $C(n, k)$	Combination [†] Combinations of n objects taken k at a time.	$C(4!!, 4) = \frac{8!}{(8 - 4)! \times 4!} = 70$ $C(\Gamma(4), \sqrt{4}) = 15$
nP_k $P(n, k)$	Permutation [†] Permutations—arrangements—of n objects taken k at a time.	$P(n, k) = \frac{n!}{(n - k)!}$ $P(4!!, 4) = \frac{8!}{(8 - 4)!} = 1,680$ $P(\Gamma(4), \sqrt{4}) = 30$
$B(x, y)$	Beta Function [†] Useful as a divisor. See also page 11.	$B(x, y) = \frac{\Gamma(x) \cdot \Gamma(y)}{\Gamma(x + y)} = \frac{(x - 1)! \cdot (y - 1)!}{(x + y - 1)!}$ $B(\sqrt{4}, \Sigma(\sqrt{4})) = \frac{\Gamma(2) \cdot \Gamma(3)}{\Gamma(2 + 3)} = \frac{1 \cdot 2}{24} = \frac{1}{12}$ $B(\Sigma(\sqrt{4}), \Gamma(4)) = \frac{1}{168}$
$_xMOD_y$ $MOD(x, y)$	Modulus Also known as the Remainder Function .	$MOD(\Gamma(4!!), (4!!)!!) = MOD(5040, 384)$ $= 48$ $MOD((4!!)!!, \Sigma(\Gamma(4)))$ $= MOD(384, 231) = 153$

* The Absolute Value Function $|x|$ is not shown because it is unnecessary. Functions such as Integer, Floor, and Ceiling are not allowed because they trivialize the game by “converting” non-integer approximations into integers. On the other hand, there are certainly other legal functions that could be used in **The Four Fours Game**. They are not included in this table because I don’t know them yet.

† See **USEFUL TABLES** (page 12) for values for these functions.

For more information about the Double Factorial function see:
https://en.wikipedia.org/wiki/Double_factorial#Generalizations and
<https://mathworld.wolfram.com/DoubleFactorial.html>.

For Multifactorials, see:
<https://en.wikipedia.org/wiki/Factorial#Multifactorials> and
<https://mathworld.wolfram.com/Multifactorial.html>.

For Subfactorials, see:

<https://en.wikipedia.org/wiki/Derangement> and
<https://mathworld.wolfram.com/Subfactorial.html>.

Please note that the formulations for Double Factorials shown above are those provided by Tuma. The links immediately above (and others not shown here) provide a more general formulation for all types of factorials. Unfortunately, as I learned while building my Excel tables, some of the published formulations are incorrect (probably typos).

[‡] There are several algorithms for producing every positive integer using logarithms and nested roots, but these trivialize **The Four Fours Game** and thus are not permitted. Paul Bourke (see *References*) provides the following information regarding several related generic solutions for all integers using three and even two 4s. These can be easily converted to use four 4s, but since these solutions trivialize **The Four Fours Game** they are not allowed.

- “**Any number with three 4's** (contributed by Ben Rudiak-Gould)
A cute solution to ANY number using just 3 fours. By admitting natural logarithms, $\ln()$, then any positive integer n can be represented as

$$n = -\ln \left[\ln \left(\sqrt{\ln \left(\sqrt{\dots \left(\sqrt{(\ln(4))} \dots \right)} \right)} \right) / \ln(4) \right] / \ln(4)$$

where the number of nested $\sqrt{}$ functions is twice n . Or if base 4 logarithms are permitted, $\log_4()$, then the expression becomes

$$n = -\log_4 \left(\log_4 \left(\sqrt{\log_4 \left(\sqrt{\dots \left(\sqrt{(\log_4(4))} \dots \right)} \right)} \right) \right)$$

- “**Any number with two 4's** (Contributed by “whetstone”)

Using $\log_{10}()$, any number can be represented using two fours and creative use of % as shown below:

$\log \left(\sqrt{4/4\%} \right) =$	$\log(\sqrt{100}) =$	$\log(10) =$	1
$\log \left(\sqrt{4/4\% \%} \right) =$	$\log(\sqrt{10000}) =$	$\log(100) =$	2
$\log \left(\sqrt{4/4\% \% \% \%} \right) =$			n''

Some **Four Fours** aficionados may question the legality of certain operations listed above. As mentioned in Gardner's column, only addition, subtraction, multiplication, and division were originally permitted, followed by the square root, factorial, and decimal point.

I take a broader yet thoroughly consistent approach.¹¹ So, if multiplication—which is really repeated addition—is allowed, then certainly square roots, factorials, and decimals—which also use simple symbols in place of longer, equivalent operations—should be allowed as well. And, of course, they are. And, if these operations are allowed, then many other well-known and documented operations, such as powers, the Summation and Gamma Functions, percent, etc. must also be allowed. All of these valid operations are analogous to a computer: they take input and produce output. The following examples illustrate these points:

¹¹ Well...almost. The Integer, Floor, Ceiling and similar functions and the log+square root tricks shown above, while technically meeting the criteria for legal operations, are excluded because they trivialize the game. We all agree that, by means of the log+square root tricks, **The Four Fours Game** has been definitively solved for all integers from 1 to ∞ , so now let's find solutions using other methods. This is analogous to chess: just because Deep Blue defeated Garry Kasparov does not mean we shouldn't continue to play chess, and play badly I will.

Legal Operation	Illegal Equivalent(s)
$4^{4+4} = 65,536$	$4^{4+4} \Rightarrow 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$ $4^{4+4} \Rightarrow 4 + 4 + \dots + 4$ (Both equivalents use too many 4s.)
.4 and . $\bar{4}$	$.4 \Rightarrow \frac{4}{10}$ and $.\bar{4} \Rightarrow \frac{4}{9}$ (Both equivalents use non-4 numbers.)
4% and 4%%	$4\% \Rightarrow \frac{4}{100}$ and $4\% \Rightarrow \frac{4}{10,000}$ (Both equivalents use non-4 numbers.)
$4! = 24$	$x! = \prod_{i=1}^x (x) = \prod_{i=1}^x i$ $= x(x - 1)(x - 2) \cdots 3 \times 2 \times 1$ $4! \Rightarrow \prod_{i=1}^4 i$ $4! \Rightarrow 4 \cdot 3 \cdot 2 \cdot 1 = 24$ (The first equivalent uses a variable and the second uses non-4 numbers. The same type of argument applies to the Double Factorial, Multifactorial, and Subfactorial functions.)
$\Gamma(4)$	$\Gamma(x) = \int_0^\infty t^{x-1} e^{-t} dt$ $\Gamma(x) = (x - 1)! \text{ (for integer values, } x > 0\text{)}$ $\Gamma(4) \Rightarrow (4 - 1)! = 6$ (The definition uses variables and the equivalent for integers uses a non-4 number.)
$\Sigma(4) = 10$	$\Sigma(x) = \sum_{i=1}^x i = \frac{x(x + 1)}{2}$ $\Sigma(4) \Rightarrow \sum_{i=1}^4 i$ $\Sigma(4) \Rightarrow 4 + 3 + 2 + 1 = 10$ (The first equivalent uses a variable and the second uses non-4 numbers.)

Legal Operation	Illegal Equivalent(s)
$B(4, \sqrt{4})$	$B(x, y) = \frac{\Gamma(x) \cdot \Gamma(y)}{\Gamma(x + y)} = \frac{(x - 1)! \cdot (y - 1)!}{(x + y - 1)!}$ $B(4, \sqrt{4}) \Rightarrow \frac{\Gamma(4) \cdot \Gamma(2)}{\Gamma(4 + 2)} = \frac{6 \cdot 1}{120} = 0.05 = \frac{1}{20}$ <p>(The Beta Function is based on the Gamma Function, so the same comments apply.)</p>

To carry this line of thinking even further, the trigonometric and logarithmic functions are really no different, except that the “symbol” requires several alphabetic characters. Keep in mind that most of the operations listed above are simply abbreviations for longer calculations that would otherwise use more than the one or two 4s allotted, as well as possibly other non-4 numbers. As long as the operations and symbols are common, exist outside **The Four Fours Game**, and conform to the rules and caveats stated above, there is no particular reason to exclude them.

Conversely, $\sqrt[.]{4} = \bar{2}$ and similar are not allowed because they use non-standard mathematical syntax. And, don’t even suggest $\sqrt{4}\sqrt{4} = 22$ because it doesn’t and never will. In addition, unlike David Wheeler, I don’t allow $sq()$ for squaring a number because it appears to be a non-standard operator in mathematics; I have only seen it used in computer programming. In addition, I also don’t allow the binary logical operators in Wheeler’s “impurity levels” 7 and 8 because they rely on manipulating the digits of binary equivalents to base-ten integers. I am not an expert in the binary logical operators, but I suspect they can also be used to trivialize **The Four Fours Game** in a manner similar to the log+square root tricks shown above.

USEFUL TABLES

In developing solutions for **The Four Fours Game** to include in *The Four Fours Game*, I have found it very useful to refer to tables of values for different operations and functions. Since it is possible to construct many integers with just one 4 and huge quantities of integers with two and three 4s, scanning tables of values for matches with these partial solutions can aid in the development of complete solutions.¹²

I have made various tables of values using Microsoft Excel and include several examples here based on these tables. You are encouraged to make your own tables because, to be truly useful, these tables need to extend well beyond what is possible to show on 8½" × 11" paper. These tables aren't hard to build, especially if you know how to work with the \$ operator and/or array functions. Two advantages to electronic tables are automating the calculations and the ability to search for specific numbers.

The first part of this section includes several tables of operations and functions, including multiplication, prime factors, powers, and the Summation, Combination, Permutation, Gamma, and various Factorial Functions, as well as the inverse of the Beta Function. Because all values for the Beta Function are less than or equal to 1, by using it as a divisor it actually works as a multiplier for the numerator. For this reason, I prefer to search for the inverse (reciprocal) of the Beta Function in concert with a multiplication table. Excel doesn't appear to have the Gamma Function, so it is necessary to use the Factorial function and the alternative definition for the Beta Function.

The second and third parts of this section include tables containing numerous partial solutions containing one or two 4s. These tables are representative, not exhaustive. Partial solutions are useful for targeting regions of the whole number domain to investigate and as building blocks for complete solutions. If you need to "waste" a 4 for a solution, all one-4 solutions can be turned into two-4 solutions and so on.

One final hint for **The Four Fours Game** aficionado: look for "families" of solutions. Consider the following related solutions:

$$\begin{array}{lll} \frac{4 + 4 \mp .4}{.4} = [19] & \frac{4 + 4 \mp .4}{4\%} = [190] & \frac{4 + 4 \mp .4}{.4\%} = [1900] \\ \frac{4 + 4 \mp .\bar{4}}{.\bar{4}} = [17] & \frac{4 + 4 \mp 4\%}{4\%} = [199] & \frac{4 + 4 \mp 4\%}{.4\%} = [1990] \end{array}$$

Now, change one or both 4s to 4!, 4!!, Γ(4), 44, or some other one- or two-4 solution and/or change .4 to .4% or to . $\bar{4}\%$, etc., and/or change the \mp^{13} to \times and you will discover a nearly endless bounty of additional solutions. Now, apply similar changes to solutions with different configurations, and you will have solved the entire whole number domain without any tricks. ☺

¹² For example, the square root solutions for the larger integers in the 1–100 range.

¹³ I used \mp instead of \pm so that the operations visually correspond to the results, which have the smallest on top.

MISCELLANEOUS OPERATIONS AND FUNCTIONS

❖ Multiplication and Prime Factors

The following table provides values for multiplication up to 12×24 and prime factors up to 24. I suggest making a multiplication table up to at least 30×30 (my Excel table is 500×500 and could be made even larger) and a table of prime factors up to at least 300.

Prime Factors	n	1	2	3	4	5	6	7	8	9	10	11	12	...
-	1	1	2	3	4	5	6	7	8	9	10	11	12	
2	2	2	4	6	8	10	12	14	16	18	20	22	24	
3	3	3	6	9	12	15	18	21	24	27	30	33	36	
2^2	4	4	8	12	16	20	24	28	32	36	40	44	48	
5	5	5	10	15	20	25	30	35	40	45	50	55	60	
$2 \cdot 3$	6	6	12	18	24	30	36	42	48	54	60	66	72	
7	7	7	14	21	28	35	42	49	56	63	70	77	84	
2^3	8	8	16	24	32	40	48	56	64	72	80	88	96	
3^2	9	9	18	27	36	45	54	63	72	81	90	99	108	
$2 \cdot 5$	10	10	20	30	40	50	60	70	80	90	100	110	120	
11	11	11	22	33	44	55	66	77	88	99	110	121	132	
$2^2 \cdot 3$	12	12	24	36	48	60	72	84	96	108	120	132	144	
13	13	13	26	39	52	65	78	91	104	117	130	143	156	
$2 \cdot 7$	14	14	28	42	56	70	84	98	112	126	140	154	168	
$3 \cdot 5$	15	15	30	45	60	75	90	105	120	135	150	165	180	
2^4	16	16	32	48	64	80	96	112	128	144	160	176	192	
17	17	17	34	51	68	85	102	119	136	153	170	187	204	
$2 \cdot 3^2$	18	18	36	54	72	90	108	126	144	162	180	198	216	
19	19	19	38	57	76	95	114	133	152	171	190	209	228	
$2^2 \cdot 5$	20	20	40	60	80	100	120	140	160	180	200	220	240	
$3 \cdot 7$	21	21	42	63	84	105	126	147	168	189	210	231	252	
$2 \cdot 11$	22	22	44	66	88	110	132	154	176	198	220	242	264	
23	23	23	46	69	92	115	138	161	184	207	230	253	276	
$2^3 \cdot 3$	24	24	48	72	96	120	144	168	192	216	240	264	288	
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❖ Powers and the Summation Function

The following table provides values for integer powers up to 8 and the Summation Function, all for n from 1 to 24, but only for values less than 100,000,000 (to save space, larger values are denoted with “+++”). Summations and squares for $n > 24$ also prove to be especially useful (my Excel table goes to 500). The larger values for the other functions are generally not useful for generating solutions for small integers, although there are exceptions.¹⁴

¹⁴ For example, the two-4 solution for 64 based on 4^{24} .

n	n^2	n^3	n^4	n^5	n^6	n^7	n^8	$\Sigma(n)$
1	1	1	1	1	1	1	1	1
2	4	8	16	32	64	128	256	3
3	9	27	81	243	729	2,187	6,561	6
4	16	64	256	1,024	4,096	16,384	65,536	10
5	25	125	625	3,125	15,625	78,125	390,625	15
6	36	216	1,296	7,776	46,656	279,936	1,679,616	21
7	49	343	2,401	16,807	117,649	823,543	5,764,801	28
8	64	512	4,096	32,768	262,144	2,097,152	16,777,216	36
9	81	729	6,561	59,049	531,441	4,782,969	43,046,721	45
10	100	1,000	10,000	100,000	1,000,000	10,000,000	+++	55
11	121	1,331	14,641	161,051	1,771,561	19,487,171	+++	66
12	144	1,728	20,736	248,832	2,985,984	35,831,808	+++	78
13	169	2,197	28,561	371,293	4,826,809	62,748,517	+++	91
14	196	2,744	38,416	537,824	7,529,536	+++	+++	105
15	225	3,375	50,625	759,375	11,390,625	+++	+++	120
16	256	4,096	65,536	1,048,576	16,777,216	+++	+++	136
17	289	4,913	83,521	1,419,857	24,137,569	+++	+++	153
18	324	5,832	104,976	1,889,568	34,012,224	+++	+++	171
19	361	6,859	130,321	2,476,099	47,045,881	+++	+++	190
20	400	8,000	160,000	3,200,000	64,000,000	+++	+++	210
21	441	9,261	194,481	4,084,101	85,766,121	+++	+++	231
22	484	10,648	234,256	5,153,632	+++	+++	+++	253
23	529	12,167	279,841	6,436,343	+++	+++	+++	276
24	576	13,824	331,776	7,962,624	+++	+++	+++	300
:								

❖ Combination Function

The following table provides the number of combinations up to $n = 12$ and $k = 8$. I suggest making a table for at least $n = 20$. My Excel table goes to $n = 36$ by $k = 36$. The Combination Function is quasi-symmetrical about $k = n/2$.

n k	1	2	3	4	5	6	7	8	9	10	11	12	...
1	1	2	3	4	5	6	7	8	9	10	11	12	
2	-	1	3	6	10	15	21	28	36	45	55	66	
3	-	-	1	4	10	20	35	56	84	120	165	220	
4	-	-	-	1	5	15	35	70	126	210	330	495	
5	-	-	-	-	1	6	21	56	126	252	462	792	
6	-	-	-	-	-	1	7	28	84	210	462	924	
7	-	-	-	-	-	-	1	8	36	120	330	792	
8	-	-	-	-	-	-	-	1	9	45	165	495	
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❖ Permutation Function

The following table provides the number of permutations up to $n = 12$ and $k = 8$, but only for values less than 100,000 (to save space, larger values are denoted with “+++”). I suggest making a table for at least $n = 20$. My Excel table goes to $n = 36$ by $k = 12$. However, the results for $k \geq 8$ are so large that I haven’t found a use for them...yet. Unlike the Combination Function, the Permutation Function is not symmetrical.

$\frac{n}{k}$	1	2	3	4	5	6	7	8	9	10	11	12	...
1	1	2	3	4	5	6	7	8	9	10	11	12	
2	-	2	6	12	20	30	42	56	72	90	110	132	
3	-	-	6	24	60	120	210	336	504	720	990	1,320	
4	-	-	-	24	120	360	840	1,680	3,024	5,040	7,920	11,880	
5	-	-	-	-	120	720	2,520	6,720	15,120	30,240	55,440	95,040	
6	-	-	-	-	-	720	5,040	20,160	60,480	+++	+++	+++	
7	-	-	-	-	-	-	5,040	40,320	+++	+++	+++	+++	
8	-	-	-	-	-	-	-	40,320	+++	+++	+++	+++	
:													..

❖ Inverse Beta Function

The following table provides values for the inverse (reciprocal) of the Beta Function up to $x = 12$ and $y = 8$, but only for values less than 100,000 (to save space, larger values are denoted with “+++”). I suggest making a table for at least $x = 20$. My Excel table goes to $x = 36$ by $y = 12$. However, the results for $k \geq 8$ are so large that I haven’t found a use for them...yet. The Beta Function and its inverse are symmetrical about the line $y = x$.

$\frac{x}{y}$	1	2	3	4	5	6	7	8	9	10	11	12	...
1	1	2	3	4	5	6	7	8	9	10	11	12	
2	2	6	12	20	30	42	56	72	90	110	132	156	
3	3	12	30	60	105	168	252	360	495	660	858	1,092	
4	4	20	60	140	280	504	840	1,320	1,980	2,860	4,004	5,460	
5	5	30	105	280	630	1,260	2,310	3,960	6,435	10,010	15,015	21,840	
6	6	42	168	504	1,260	2,772	5,544	10,296	18,018	30,030	48,048	74,256	
7	7	56	252	840	2,310	5,544	12,012	24,024	45,045	80,080	+++	+++	
8	8	72	360	1,320	3,960	10,296	24,024	51,480	+++	+++	+++	+++	
:													..

In addition, I suggest making tables for solution families, for powers in the form $2^n, 3^n$, etc., and for useful trig and inverse trig values (e.g., $\text{atan}(1) = \text{asin}(1/\sqrt{2}) = \text{acos}(1/\sqrt{2}) = 45$, $\text{asin}(0.5) = \text{acos}(\sqrt{3/4}) = 30$, etc.). Tables for the trig and inverse trig functions can also be found, among other places, in *Schaum's Outline of Mathematical Handbook of Formulas and Tables* and *Engineering Mathematics Handbook*, by Jan J. Tuma.

❖ Gamma, Factorial, Double Factorial, Multifactorial, and Subfactorial Functions

The following table provides values for the Gamma, Factorial, Double Factorial, Multifactorial ($k = 3$ to 5^{15}), and Subfactorial Functions, all for n from 1 to 24. Values greater than one million are presented in calculator-style scientific notation. The larger values for these functions are generally not useful for generating solutions for small integers, although there are exceptions.

n	$\Gamma(n)$	$n!$ ($k = 1$)	$n!!$ ($k = 2$)	$n!!!$ ($k = 3$)	$n!!!!$ ($k = 4$)	$n!!!!!!$ ($k = 5$)	$!n$
1	1	1	1	1	1	1	0
2	1	2	2	2	2	2	1
3	2	6	3	3	3	3	2
4	6	24	8	4	4	4	9
5	24	120	15	10	5	5	44
6	120	720	48	18	12	6	265
7	720	5,040	105	28	21	14	1,854
8	5,040	40,320	384	80	32	24	14,833
9	40,320	362,880	945	162	45	36	133,496
10	362,880	3.629E06	3,840	280	120	50	1.335E06
11	3.629E06	3.992E07	10,395	880	231	66	1.468E07
12	3.992E07	4.790E08	46,080	1,944	384	168	1.762E08
13	4.790E08	6.227E09	135,135	3,640	585	312	2.291E09
14	6.227E09	8.718E10	645,120	12,320	1,680	504	3.207E10
15	8.718E10	1.308E12	2.027E06	29,160	3,465	750	4.811E11
16	1.308E12	2.092E13	1.032E07	58,240	6,144	1,056	7.697E12
17	2.092E13	3.557E14	3.446E07	209,440	9,945	2,856	1.309E14
18	3.557E14	6.402E15	1.858E08	524,880	30,240	5,616	2.355E15
19	6.402E15	1.216E17	6.547E08	1.107E06	65,835	9,576	4.475E16
20	1.216E17	2.433E18	3.716E09	4.189E06	122,880	15,000	8.950E17
21	2.433E18	5.109E19	1.375E10	1.102E07	208,845	22,176	1.880E19
22	5.109E19	1.124E21	8.175E10	2.434E07	665,280	62,832	4.135E20
23	1.124E21	2.585E22	3.162E11	9.634E07	1.514E06	129,168	9.510E21
24	2.585E22	6.204E23	1.635E12	2.645E08	2.949E06	229,824	2.283E23
:							

❖ Euler Numbers

In early 2021, while searching the deep dark recesses of the mathematical universe for a function that would produce the number five using just one four, I stumbled upon Euler Numbers (https://encyclopediaofmath.org/wiki/Euler_numbers, etc.). Euler Numbers with odd indexes are zero and Euler Numbers with even indexes alternate between even and odd. Here are the first few non-zero Euler Numbers: $E(0) = 1$, $E(2) = -1$, $E(4) = 5$, $E(6) = -61$, $E(8) = 1385\dots$ I have not spent enough time with Euler Numbers yet, but they will get a work out.

¹⁵ My Excel table calculates Multifactorials up to $k = 12$.

SOME PARTIAL SOLUTIONS WITH ONE FOUR

One of the main building blocks for **The Four Fours Game** is the one-4 solution. A one-4 solution is created by applying one or more mathematical operations to a single 4 to create other numbers. One-4 solutions can then be combined to create two-4 and three-4 solutions, and ultimately four-4 solutions. The first full table shows decimal fractions that be used as divisors. The second full table shows integers. Neither table is exhaustive, so I have provided empty tables for your own creations and space for notes.

Fractions	Decimals	Equations
$\frac{1}{25,000}$	0.00004	.4%%
$\frac{1}{22,500}$	0.00004̄	.4̄%%
$\frac{1}{2,500}$	0.0004	4%%
$\frac{1}{1,250}$	0.0008	(4!!)%%
$\frac{9}{10,000}$	0.0009	(! 4)%%
$\frac{6}{2,500}$	0.0024	(4!)%%
$\frac{1}{250}$	0.004	.4%
$\frac{1}{225}$	0.004̄	.4̄%
$\frac{1}{150}$	0.006̄	$\sqrt{.4\%}$
		$(\sqrt{.4})\%$
$\frac{1}{100}$	0.01	$(\Gamma(\sqrt{4}))\%$
$\frac{1}{50}$	0.02	$(\sqrt{4})\%$
$\frac{3}{100}$	0.03	$(\Sigma(\sqrt{4}))\%$
$\frac{1}{25}$	0.04	4%
$\frac{3}{50}$	0.06	$(\Gamma(4))\%$
$\frac{1}{15}$	0.06̄	$\sqrt{.4\%}$
$\frac{2}{25}$	0.08	(4!!)%
$\frac{9}{100}$	0.09	(! 4)%
$\frac{1}{5}$	0.2	$\sqrt{4\%}$
$\frac{6}{25}$	0.24	(4!)%

NOTES

Integers	Equations	Integers	Equations
1	$\Gamma(\sqrt{4})$	45	$\text{atan}(\Gamma(\sqrt{4}))$
	$!\sqrt{4}$		$\Sigma(4)$
2	$\sqrt{4}$	48	$(\Gamma(4))!!$
3	$\Sigma(\sqrt{4})$	50	$(\Sigma(4))!!!! [k = 5]$
	$\sqrt{!4}$	55	$\Sigma(\Sigma(4))$
4	4	60	$\text{asec}(\sqrt{4})$
5	$E(4)$	61	$-E(\Gamma(4))$
6	$\Gamma(4)$	75	$((E(4))!!)!!!!!!!! [k = 10]$
	$\Sigma(\Sigma(\sqrt{4}))$	78	$\Sigma((\Gamma(4))!!!) [k = 4]$
	$\sqrt{\Sigma(4!!)}$	80	$(4!!)!!! [k = 3]$
8	$4!!$	90	$\text{asin}(\Gamma(\sqrt{4}))$
9	$!4$	100	$\text{alog}(\sqrt{4})$
10	$\Sigma(4)$	120	$(E(4))!$
	$\text{alog}(\Gamma(\sqrt{4}))$		$\Gamma(\Gamma(4))$
	$\sqrt{\text{alog}(\sqrt{4})}$		$(\Sigma(4))!!!! [k = 4]$
12	$(\Gamma(4))!!!! [k = 4]$	135 ¹⁶	$\text{atan}(-\Gamma(\sqrt{4}))$
15	$\Sigma(E(4))$	144	$((\Gamma(4))!!!)!!!!!! [k = 3,10]$
	$(E(4))!!$	162	$((\Gamma(4))!!!)!!!!!! [k = 3,9]$
16	$(4!!)!!!!!! [k = 6]$	168	$((\Gamma(4))!!!!)!!!! [k = 4,5]$
18	$(\Gamma(4))!!! [k = 3]$	171	$\Sigma((\Gamma(4))!!!) [k = 3]$
20	$(\Sigma(4))!!!!!! [k = 8]$	200	$((\Sigma(4))!!!!!!)!!!!!! [k = 8,10]$
21	$\Sigma(\Gamma(4))$	231	$\Sigma(\Sigma(\Gamma(4)))$
24	$4!$	265	$!(\Gamma(4))$
	$(4!!)!!!! [k = 5]$	280	$(\Sigma(4))!!! [k = 3]$
30	$\text{acsc}(\sqrt{4})$		
32	$(4!!)!!!! [k = 4]$		
36	$\Sigma(4!!)$		
44	$!(E(4))$		

¹⁶ The trig functions are cyclical; 135 is the first positive value for $\text{atan}(-1)$. I use the first positive value for all trig functions.

Integers	Equations	Integers	Equations
288	$(4!)!!!!!! [k = 12]$	3,240	$\Sigma((4!!)!!) [k = 2,3]$
300	$\Sigma(4!)$	3,465	$((E(4))!!) !!! [k = 4]$
360	$((\Gamma(4))!!!)!!!! [k = 3,8]$	3,840	$(\Sigma(4))!!$
384	$(4!!)!!$	4,095	$\Sigma(\text{asin}(\Gamma(\sqrt{4})))$
405	$((E(4))!!)!!!! [k = 6]$	5,040	$\Gamma(4!!)$
465	$\Sigma(\text{acsc}(\sqrt{4}))$	5,050	$\Sigma(alog(\sqrt{4}))$
666	$\Sigma(\Sigma(4!!))$	5,616	$((\Gamma(4))!!!)!!!! [k = 3,5]$
720	$(\Gamma(4))!$	7,260	$\Sigma(\Gamma(\Gamma(4)))$
750	$((E(4))!!)!!!! [k = 5]$	8,505	$(\Sigma(\Gamma(4)))!!!! [k = 6]$
756	$(\Sigma(\Gamma(4)))!!!!!! [k = 9]$	9,180	$\Sigma(\text{atan}(-\Gamma(\sqrt{4})))$
792	$((\Gamma(4))!!!)!!!!!! [k = 3,7]$	10,000	$alog(4)$
1,000	$alog(\Sigma(\sqrt{4}))$	12,240	$(4!)!!!!!! [k = 7]$
1,035	$\Sigma(\text{atan}(\Gamma(\sqrt{4})))$	14,833	$!(4!!)$
1,176	$\Sigma((\Gamma(4))!!)$	22,176	$(\Sigma(\Gamma(4)))!!!! [k = 5]$
1,275	$\Sigma((\Sigma(4))!!!!) [k = 5]$	26,796	$\Sigma(\Sigma(\Gamma(4)))$
1,296	$((\Gamma(4))!!!)!!!! [k = 3,6]$	29,160	$((E(4))!!) !!! [k = 3]$
1,344	$(4!)!!!!!! [k = 10]$	30,240	$((\Gamma(4))!!!)!!!! [k = 3,4]$
1,365	$(\Sigma(\Gamma(4)))!!!!!! [k = 8]$	31,104	$(4!)!!!!!! [k = 6]$
1,385	$E(4!!)$	40,320	$(4!!)!$
1,540	$\Sigma(\Sigma(\Sigma(4)))$	45,150	$\Sigma(\Sigma(4!))$
1,830	$\Sigma(\text{asec}(\sqrt{4}))$	46,080	$((\Gamma(4))!!!!) !! [k = 4,2]$
1,944	$((\Gamma(4))!!!!) !!! [k = 4,3]$	73,920	$\Sigma((4!!)!!)$
2,058	$(\Sigma(\Gamma(4)))!!!!!! [k = 7]$	100,000	$alog(E(4))$
2,160	$(4!)!!!!!! [k = 9]$	108,345	$\Sigma(\Sigma(\text{acsc}(\sqrt{4})))$
3,072	$(4!)!!!!!! [k = 8]$	133,496	$!(4!!)$

Integers	Equations
208,845	$\left(\Sigma(\Gamma(4))\right)!!!! \quad [k = 4]$
222,111	$\Sigma\left(\Sigma(\Sigma(4!!))\right)$
259,560	$\Sigma\left((\Gamma(4))!\right)$
362,880	$(!4)!$
500,500	$\Sigma\left(alog\left(\Sigma(\sqrt{4})\right)\right)$
524,880	$\left((\Gamma(4))!!!\right)!!! \quad [k = 3,3]$

Integers	Equations

NOTES

SOME PARTIAL SOLUTIONS WITH TWO FOURS

The large number of one-4 solutions in the preceding tables (which are not exhaustive) leads to an extremely large number of two-4 solutions. The following tables of two-4 solutions for fractions and integers are also far from exhaustive. Thanks to Multifactorials—new in v4.00 of *The Four Fours Game*—I finally solved the six remaining holes in the list of two-4 solutions for integers from 1 to 100 (67, 71, 73, 74, 83, and 95). Above 100, I paid extra attention to creating odd numbers, which are generally harder to come by than even numbers. There are some very obvious omissions above 100 (e.g. 101, 102, 104, 106, 110, 114, 115, 124, etc.), but these are easily made by adding two one-4 solutions and more can be made with other operations. In fact, to keep this document from getting too big, I deliberately left out many other solutions I had created. Fortunately, most of the left-out solutions are duplicate solutions.

Suggestions for making additional two-4 solutions by combining two one-4 solutions from the preceding tables include:

- Combine integers and fractions in various ways. I have provided several examples using an “unadorned” 4 as the integer. The results should be useful for multiplying and dividing with other numbers to make complete solutions.
- Combine two fractions in various ways. I have provided more than a dozen examples. These should be useful as divisors for making complete solutions.
- Make two-4 solutions that include Multifactorials, Subfactorials, and Euler Numbers. I have just started using these functions and I expect they will be fruitful...and multiply. ☺

Fractions	Decimals	Equations	Fractions	Decimals	Equations
$\frac{1}{2,500}$	0.0004	$((\sqrt{4})\%)^{\sqrt{4}}$	$\frac{17}{300}$	0.05̄6	$\sqrt{.4}\% - (\Gamma(\sqrt{4}))\%$
$\frac{1}{1,000}$	0.001	$\frac{(\Gamma(\sqrt{4}))\%}{\Sigma(4)}$	$\frac{23}{300}$	0.07̄6	$\sqrt{.4}\% + (\Gamma(\sqrt{4}))\%$
$\frac{1}{625}$	0.0016	(4%)(4%)	$\frac{1}{12}$	0.08̄3	$B(\sqrt{4}, \Sigma(\sqrt{4}))$
$\frac{1}{500}$	0.002	$\frac{(\sqrt{4})\%}{\Sigma(4)}$	$\frac{8}{75}$	0.10̄6	$\sqrt{.4}\% + 4\%$
$\frac{1}{375}$	0.002̄6	$\sqrt{.4}\% \times 4\%$	$\frac{4}{25}$	0.16	$(.4)(.4)$
$\frac{11}{2,500}$	0.0044	.44%	$\frac{8}{45}$	0.1̄7	$(.4)(.\bar{4})$
$\frac{1}{168}$	0.005952 ...	$B(\Sigma(\sqrt{4}), \Gamma(4))$	$\frac{16}{81}$	0.19753 ...	$(.\bar{4})(.\bar{4})$
$\frac{1}{100}$	0.01	$(\frac{4}{4})\%$	$\frac{59}{250}$	0.236	$(4!) \% - .4\%$
$\frac{2}{125}$	0.016	$(.4)(4\%)$	$\frac{61}{250}$	0.244	$(4!) \% + .4\%$
$\frac{1}{50}$	0.02	$\frac{4\%}{\sqrt{4}}$	$\frac{4}{15}$	0.2̄6	$.4 \times \sqrt{.4}$
$\frac{2}{75}$	0.02̄6	$\sqrt{.4}\% - 4\%$	$\frac{8}{27}$	0.2̄96	$.4 \times \sqrt{.4}$
			$\frac{391}{900}$	0.43̄4	$.4 - (\Gamma(\sqrt{4}))\%$

Fractions	Decimals	Equations	Fractions	Decimals	Equations
$\frac{11}{25}$	0.44	.44			
$\frac{409}{900}$	$0.45\bar{4}$	$.4 + (\Gamma(\sqrt{4}))\%$			
$\frac{1}{2}$	0.5	$\sin(\sqrt{4} \div .4\%)$			
$\frac{154}{225}$	$0.68\bar{4}$	$(4!) \% + .4$			
$\frac{38}{45}$	$0.8\bar{4}$	$.4 + .\bar{4}$			
$\frac{8}{9}$	$0.\bar{8}$	$.4 + .\bar{4}$			
$\frac{8}{5}$	1.6	$4 \times .4^\dagger$			
$\frac{16}{9}$	$1.\bar{7}$	$4 \times .\bar{4}$			
$\frac{8}{3}$	$2.\bar{6}$	$4 \times \sqrt{.4}$			
$\frac{10}{3}$	$3.\bar{3}$	$4 - \sqrt{.4}$			
$\frac{32}{9}$	$3.\bar{5}$	$4 - .\bar{4}$			
$\frac{18}{5}$	3.6	$4 - .4$			
$\frac{99}{25}$	3.96	$4 - 4\%$			
$\frac{101}{25}$	4.04	$4 + 4\%$			
$\frac{22}{5}$	4.4	4.4			
$\frac{40}{9}$	$4.\bar{4}$	$4.\bar{4}$			
$\frac{14}{3}$	$4.\bar{6}$	$4 + \sqrt{.4}$			
$\frac{50}{3}$	$16.\bar{6}$	$\frac{4}{(4!) \%}$			
$\frac{200}{3}$	$66.\bar{6}$	$\frac{4}{(\Gamma(4)) \%}$			
$\frac{400}{3}$	$133.\bar{3}$	$\frac{4}{(\Sigma(\sqrt{4})) \%}$			

[†] The remaining two-4 solutions in this table include one unadorned 4. Replace this 4 with various one-4 solutions for other numbers (e.g. $\Gamma(4)$, $4!$, $\Sigma(4)$, etc.) and this table can be expanded several times over.

Integers	Equations	Integers	Equations
1	$\frac{4}{4}$	8	$4 + 4$ $\Gamma(4) + \sqrt{4}$ $!4 - \Gamma(\sqrt{4})$ $\Sigma(4) - \sqrt{4}$
2	$4 - \sqrt{4}$ $\frac{4}{\sqrt{4}}$ $\frac{4!!}{4}$	9	$\frac{4}{.4}$ $\Sigma(\sqrt{4})^{\sqrt{4}}$ $\Gamma(4) + \Sigma(\sqrt{4})$ $4!! + \Gamma(\sqrt{4})$
3	$\sqrt{\frac{4}{.4}}$ $4 - \Gamma(\sqrt{4})$ $\frac{\Gamma(4)}{\sqrt{4}}$ $\frac{4!}{4!!}$	10	$\frac{4}{.4}$ $\Gamma(4) + 4$ $4!! + \sqrt{4}$
4	$\sqrt{4} + \sqrt{4}$ $\sqrt[4]{4}$ $\sqrt{4 \times 4}$	11	$4!! + \Sigma(\sqrt{4})$ $!4 + \sqrt{4}$
5	$\frac{\sqrt{4}}{.4}$ $4 + \Gamma(\sqrt{4})$ $\frac{\Sigma(4)}{\sqrt{4}}$ $\frac{\Gamma(\Gamma(4))}{4!}$	12	$\frac{4!}{\sqrt{4}}$ $4 \times \Sigma(\sqrt{4})$ $\sqrt{4} \times \Gamma(4)$ $4!! + 4$ $!4 + \Sigma(\sqrt{4})$ $\Sigma(4) + \sqrt{4}$
6	$4 + \sqrt{4}$ $\sqrt{4} \times \Sigma(\sqrt{4})$ $\frac{4!}{4}$	13	$\Sigma(4) + \Sigma(\sqrt{4})$ $!4 + 4$
7	$4 + \Sigma(\sqrt{4})$ $\Gamma(4) + \Gamma(\sqrt{4})$ $4!! - \Gamma(\sqrt{4})$ $!4 - \sqrt{4}$	14	$\Sigma(4) + 4$ $4!! + \Gamma(4)$
		15	$\Sigma\left(\frac{\sqrt{4}}{.4}\right)$ $(\sqrt{4} \div .4)!!$ $!4 + \Gamma(4)$

Integers	Equations	Integers	Equations
16	4×4	25	$\frac{a \log(\sqrt{4})}{4}$
	$4!! \times \sqrt{4}$		$\frac{\Gamma(\sqrt{4})}{4\%}$
	$\Sigma(4) + \Gamma(4)$		$\Sigma(\Gamma(4)) + 4$
	$4^{\sqrt{4}}$		$4! + \Gamma(\sqrt{4})$
	$\sqrt{.4} \times 4!$		$4! + \sqrt{4}$
17	$\Sigma(\Gamma(4)) - 4$	26	$(\Gamma(4))!!! + 4!!$
	$!4 + 4!!$		$4! + \Sigma(\sqrt{4})$
18	$\frac{4!!}{.4}$	27	$\Sigma(\Gamma(4)) + \Gamma(4)$
	$\Sigma(4) + 4!!$		$(\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$
	$!4 \times \sqrt{4}$		$(\Gamma(4))!!! + !4$
19	$\Sigma(\Gamma(4)) - \sqrt{4}$	28	$4! + 4$
	$\Sigma(4) + !4$		$C(4!!, \sqrt{4})$
20	$4! - 4$		$\Sigma(4!! - \Gamma(\sqrt{4}))$
	$\frac{4!!}{.4}$		$(\Sigma(4))!!!!!! + 4!!$
21	$4! - \Sigma(\sqrt{4})$	29	$\Sigma(\Gamma(4)) + 4!!$
	$\Sigma(4 + \sqrt{4})$		$acsc(\sqrt{4}) - \Gamma(\sqrt{4})$
22	$4! - \sqrt{4}$		$(\Sigma(4))!!!!!! + !4$
	$\Sigma(4) + (\Gamma(4))!!!!$		$\text{asin}\left(\frac{\sqrt{4}}{4}\right)$
23	$\Sigma(\Gamma(4)) + \sqrt{4}$	30	$\sqrt{\frac{4}{.4\%}}$
	$4! - \Gamma(\sqrt{4})$		$\frac{\Gamma(\Gamma(4))}{4}$
24	$(\sqrt{4} + \sqrt{4})!$		$\Sigma(\Gamma(4)) + !4$
	$4!! \cdot \Sigma(\sqrt{4})$		$\Sigma(\Gamma(4)) + \Sigma(4)$
	$4 \times \Gamma(4)$		$acsc(\sqrt{4}) + \Gamma(\sqrt{4})$
	$\sqrt{4} \times (\Gamma(4))!!!!$		$\Sigma(\Sigma(4)) - 4!$
	$(4!!)!!!! + 4!!$		
	$(\Gamma(4))!!! + \Gamma(4)$		
	$\Sigma(\Gamma(4)) + \Sigma(\sqrt{4})$		
	$(4!!)!!!! - 4!!$		

Integers	Equations		Integers	Equations		
32	$4!! \times 4$		41	$\text{atan}(\Gamma(\sqrt{4})) - 4$		
	$\sqrt[4]{4}$			$\Sigma(\Gamma(4)) + (\Sigma(4))!!!!!!$		
	$4! + 4!!$			$\Sigma(4!!) + \Gamma(4)$		
33	$\text{acsc}(\sqrt{4}) + \Sigma(\sqrt{4})$		42	$4! + (\Gamma(4))!!!$		
	$4! + !4$			$\text{atan}(\Gamma(\sqrt{4})) - \Sigma(\sqrt{4})$		
34	$4! + \Sigma(4)$		43	$\text{atan}(\Gamma(\sqrt{4})) - \sqrt{4}$		
	$\text{acsc}(\sqrt{4}) + 4$			44		
35	$\Sigma(4!!) - \Gamma(\sqrt{4})$		44	$(4!!)!!!! + (\Gamma(4))!!!!$		
	$\frac{4!}{\sqrt{.4}}$			$4! + (\Sigma(4))!!!!!!$		
	$\Sigma(4 + 4)$			$\Sigma(4!!) + 4!!$		
	$(\Gamma(4))^{\sqrt{4}}$			$(\Gamma(4))!! - 4$		
36	$4 \times !4$	$\sqrt{4} \times (\Gamma(4))!!!$		$\text{atan}\left(\frac{4}{4}\right)$		
	$\Sigma(\sqrt{4}) \times (\Gamma(4))!!!!$		45	$E(4) \times !4$		
	$\frac{((\Gamma(4))!!!)!!!!!!}{\Sigma(4)}$			$\Sigma\left(\frac{4}{.4}\right)$		
37	$\Sigma(4!!) + \Gamma(\sqrt{4})$			$\text{atan}(\Gamma(\sqrt{4})) + \Gamma(\sqrt{4})$		
	$\Sigma(4!!) + \sqrt{4}$		47	$\text{atan}(\Gamma(\sqrt{4})) + \sqrt{4}$		
38	$\text{acsc}(\sqrt{4}) + 4!!$			$4! + 4!$		
	$(4!!)!!!! + \Gamma(4)$		48	$\Sigma(4!!) + (\Gamma(4))!!!!$		
	$\Sigma(4!!) + \Sigma(\sqrt{4})$			$4!! \cdot \Gamma(4)$		
39	$\Sigma(\Gamma(4)) + (\Gamma(4))!!!$		49	$\text{atan}(\Gamma(\sqrt{4})) + 4$		
	$\text{acsc}(\sqrt{4}) + !4$			$\frac{\sqrt{4}}{4\%}$	$\frac{\text{alog}(\sqrt{4})}{\sqrt{4}}$	
40	$4 \times \Sigma(4)$	$\frac{4!!}{\sqrt{4\%}}$	50	$(\Gamma(4))!! + \sqrt{4}$		
	$\Sigma(4!!) + 4$			$\Sigma(\Sigma(4)) - 4$		
	$\sqrt{(4!!)!! \div (4!) \%}$		51	$\text{acsc}(\sqrt{4}) + \Sigma(\Gamma(4))$		
	$(\Gamma(4))!! - 4!!$			$(\Gamma(4))!! + 4$		
	$.4\% \cdot \text{alog}(4)$		52	$\text{asec}(\sqrt{4}) - 4!!$		

Integers	Equations	Integers	Equations
53	$\Sigma(\Sigma(4)) - \sqrt{4}$	60	$\frac{4!}{.4}$
	$(4!!)!!!! + \Sigma(\Gamma(4))$		$\Sigma(4) \times \Gamma(4)$
54	$\frac{4!}{\overline{.4}}$	61	$\Sigma(4!!) + 4!$
	$!4 \times \Gamma(4)$		$acsc(\sqrt{4}) \times \sqrt{4}$
55	$(\Sigma(4))!!!! + 4$	62	$\operatorname{asec}\left(\frac{4}{\sqrt{4}}\right)$
	$acsc(\sqrt{4}) + 4!$		$\operatorname{asec}(\sqrt{4}) + \Gamma(\sqrt{4})$
56	$atan(\Gamma(\sqrt{4})) + !4$	63	$\Sigma(\Sigma(4)) + \Gamma(4)$
	$\operatorname{asec}(\sqrt{4}) - \Gamma(4)$		$\operatorname{asec}(\sqrt{4}) + \sqrt{4}$
57	$((\Gamma(4))!!!)!!!!!! - \operatorname{asin}(\Gamma(\sqrt{4}))$	64	$(\Sigma(4))!!!! + (\Gamma(4))!!!!$
	$\Sigma\left(\frac{4}{.4}\right)$		$\operatorname{asec}(\sqrt{4}) + \Sigma(\sqrt{4})$
58	$\Sigma\left(\Sigma\left(\sqrt{4 \cdot 4}\right)\right)$	65	$\Sigma(\Sigma(4)) + 4!!$
	$(\Gamma(4))!! + 4!!$		$\Sigma(\Gamma(4)) \times \Sigma(\sqrt{4})$
59	$\frac{(4!!)!}{(\Gamma(4))!}$	66	$4^{\Sigma(\sqrt{4})}$
	$\operatorname{asec}(\sqrt{4}) - 4$		$\sqrt{4}^{\Gamma(4)}$
	$\Sigma(4!!) + (\Sigma(4))!!!!!!$	67	$\sqrt{\sqrt{\sqrt{4^{4!}}}}$
	$(4!!)!!!! + 4!$		$4!!^{\sqrt{4}}$
	$C(4!!, \Sigma(\sqrt{4}))$	68	$\frac{(4!!)!!}{\Gamma(4)}$
	$\Sigma(\Sigma(4)) + \sqrt{4}$		$\sqrt{4} \times (4!!)!!!!$
	$(\Gamma(4))!! + !4$	69	$\Sigma(\Sigma(4)) + !4$
	$\Sigma(!4) + (\Gamma(4))!!!!$		$\operatorname{asec}(\sqrt{4}) + 4$
	$(\Gamma(4))!! + \Sigma(4)$	70	$\Sigma(\Sigma(4)) + \Sigma(4)$
	$(\Sigma(4))!!!! + 4!!$		$\Sigma\left(4!! + \Sigma(\sqrt{4})\right)$
	$\operatorname{asec}(\sqrt{4}) - \sqrt{4}$	71	$\Sigma(!4) + \Sigma(\Gamma(4))$
	$\Sigma(\Sigma(4)) + 4$		$\Sigma(\Sigma(4)) + (\Gamma(4))!!!!$
	$(\Sigma(4))!!!! + !4$	72	$\operatorname{asec}(\sqrt{4}) + 4!!$

Integers	Equations	Integers	Equations
69	$\Sigma(!4) + 4!$	81	$(\Sigma(\sqrt{4}))^4$
	$\text{asec}(\sqrt{4}) + !4$		$(!4)^{\sqrt{4}}$
70	$C(4!!4)$	82	$\Sigma(!4) + \Sigma(4!!)$
	$\text{asec}(\sqrt{4}) + \Sigma(4)$		$\text{asin}(\Gamma(\sqrt{4})) - 4!!$
71	$\Sigma(\Gamma(4)) + (\Sigma(4))!!!!$	83	$(4!!)!!! - !4$
	$(4!!)!!! - !4$		$\Sigma(\Gamma(4)) \times 4$
72	$4! \times \Sigma(\sqrt{4})$	84	$\text{asec}(\sqrt{4}) + 4!$
	$(\Gamma(4))!! + 4!$		$\Sigma(\Sigma(4)) + \text{acsc}(\sqrt{4})$
	$\Sigma(4!!) \cdot \sqrt{4}$	85	$\text{asin}(\Gamma(\sqrt{4})) - 4$
	$!4 \times 4!!$		$\text{asin}(\Gamma(\sqrt{4})) - \Sigma(\sqrt{4})$
	$\frac{(4!!)!!!!}{.4}$	87	$\Sigma(\Sigma(4)) + (4!!)!!!!$
73	$(\Gamma(4))!!! + \Sigma(\Sigma(4))$		$\text{asin}(\Gamma(\sqrt{4})) - \sqrt{4}$
74	$(4!!)!!! - \Gamma(4)$	88	$\text{asin}(\Gamma(\sqrt{4})) - \Gamma(\sqrt{4})$
	$(\Sigma(4))!!!! + 4!$		$(4!!)!!! + !4$
	$\Sigma((\Gamma(4))!!!!) - 4$	89	$.4$
75	$\frac{\Sigma(\sqrt{4})}{4\%}$		$\frac{.4}{.4\%}$
	$\Sigma(\Sigma(4)) + (\Sigma(4))!!!!!!$	90	$\text{asin}\left(\frac{4}{4}\right)$
	$\text{atan}(-\Gamma(\sqrt{4})) - \text{asec}(\sqrt{4})$		$\text{asec}(\sqrt{4}) + \text{acsc}(\sqrt{4})$
76	$\Sigma(\Sigma(4)) + \Sigma(\Gamma(4))$	91	$\sqrt{4} \times \Sigma(!4)$
	$(4!!)!!! - 4$		$\Sigma(\Sigma(4) + \Sigma(\sqrt{4}))$
	$.4 \times \Sigma((\Gamma(4))!!!)$	92	$\text{asin}(\Gamma(\sqrt{4})) + \Gamma(\sqrt{4})$
77	$\frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})}$		$\text{alog}(\sqrt{4}) - !4$
78	$\Sigma\left(\frac{4!}{\sqrt{4}}\right)$	93	$\text{asin}(\Gamma(\sqrt{4})) + \sqrt{4}$
79	$\Sigma(\Sigma(4)) + 4!$		$\text{alog}(\sqrt{4}) - 4!!$
80	$\Sigma(4) \times 4!!$	93	$\text{asin}(\Gamma(\sqrt{4})) + \Sigma(\sqrt{4})$
			$(\Gamma(4))!! + \Sigma(!4)$

Integers	Equations	Integers	Equations
94	$\text{asin}(\Gamma(\sqrt{4})) + 4$	120	$\left(\frac{\sqrt{4}}{.4}\right)!$
	$\text{alog}(\sqrt{4}) - \Gamma(4)$		$\Gamma(4 + \sqrt{4})$
95	$\Sigma(!4) + (\Sigma(4))!!!!$	120	$\sqrt{4} \times \text{asec}(\sqrt{4})$
96	$4! \times 4$		$4 \times \text{acsc}(\sqrt{4})$
	$\sqrt{4} \times (\Gamma(4))!!$		$\frac{(\Gamma(4))!!}{.4}$
	$\text{asec}(\sqrt{4}) + \Sigma(4!!)$		$\Sigma\left(\left(\frac{\sqrt{4}}{.4}\right)!!\right)$
97	$\text{alog}(\sqrt{4}) - \Sigma(\sqrt{4})$	125	$(E(4))^{\sqrt{4}}$
98	$\text{alog}(\sqrt{4}) - \sqrt{4}$	126	$\Sigma((\Gamma(4))!!!!) + (\Gamma(4))!!$
99	$\text{alog}(\sqrt{4}) - \Gamma(\sqrt{4})$	128	$\frac{(4!!)!!}{\Sigma(\sqrt{4})}$
100	$\frac{4}{4\%}$		$\Gamma(\Gamma(4)) + 4!!$
	$(\Sigma(4))^{\sqrt{4}}$	131	$\Sigma(\Sigma(\Gamma(4))) - \text{alog}(\sqrt{4})$
	$\text{alog}\left(\frac{4}{\sqrt{4}}\right)$	135	$\text{atan}\left(-\frac{4}{4}\right)$
103	$\Sigma(\Sigma(4)) + (\Gamma(4))!!$		$\Sigma(\sqrt{4}) \times \text{atan}(\Gamma(\sqrt{4}))$
105	$\frac{(4!!)!}{(4!!)!!}$		$\Sigma(4 \times 4)$
	$(4!! - \Gamma(\sqrt{4}))!!$		$\text{alog}(\sqrt{4}) + \Sigma(4!!)$
	$\Sigma(\Sigma(4) + 4)$	141	$\Sigma(\Sigma(\Gamma(4))) - \text{asin}(\Gamma(\sqrt{4}))$
108	$\frac{(\Gamma(4))!!}{.4}$		$\Sigma((\Gamma(4))!!!) - \text{acsc}(\sqrt{4})$
	$\text{asec}(\sqrt{4}) + (\Gamma(4))!!$		$4! \times \Gamma(4)$
	$\text{alog}(\sqrt{4}) + 4!!$	144	$\left((\Gamma(4))!!!!\right)^{\sqrt{4}}$
110	$\Gamma(\Gamma(4)) - (\Gamma(4))!!!!$		$\Gamma(\Gamma(4)) + 4!$
	$\sqrt{4} \times \Sigma(\Sigma(4))$		$\Sigma(4!!) \times 4$
	$\Sigma(\Sigma(\Gamma(4))) - \Gamma(\Gamma(4))$		$(\Gamma(4))!! \times \Sigma(\sqrt{4})$
111		144	$\left((4 + \sqrt{4})!!!\right)!!!!!!$
112	$\frac{\Gamma(4!!)}{\text{atan}(\Gamma(\sqrt{4}))}$		

Integers	Equations	Integers	Equations
150	$\frac{\sqrt{.4}}{.4\%}$	201	$\Sigma(\Gamma(4)) - acsc(\sqrt{4})$
	$alog(\sqrt{4}) + (\Sigma(4))!!!!$	207	$\Sigma(\Sigma(\Gamma(4))) - 4!$
	$(4!!)!! - \Sigma(\Sigma(\Gamma(4)))$	210	$\Sigma(4! - 4)$
	$\sqrt{.4} \times \Sigma(\Sigma(\Gamma(4)))$		$\frac{\Gamma(4!!)}{4!}$
	$\Sigma(\Sigma(4)) \times \Sigma(\sqrt{4})$		$C(\Sigma(4), 4)$
	$\Sigma(\Gamma(4)) \times 4!!$	216	$(\Gamma(4))^{\Sigma(\sqrt{4})}$
	$\Sigma(\Sigma(4) + 4!!)$	220	$4 \times \Sigma(\Sigma(4))$
	$\sqrt{4} \times asin(\Gamma(\sqrt{4}))$	231	$\Sigma(\Sigma(4 + \sqrt{4}))$
	$\sqrt{!4} \times asec(\sqrt{4})$	240	$4! \times \Sigma(4)$
	$4 \times \Sigma(!4)$	249	$(4!!)!! - atan(-\Gamma(\sqrt{4}))$
180	$\Gamma(4) \cdot acsc(\sqrt{4})$	253	$\Sigma(4! - \sqrt{4})$
	$\Sigma(4) \times (\Gamma(4))!!!$	256	4^4
	$\Gamma(\Gamma(4)) + asec(\sqrt{4})$	270	$\frac{\Gamma(\Gamma(4))}{.4}$
	$((\Gamma(4))!!!!)!!!! + (\Gamma(4))!!!!$	276	$C(4!, \sqrt{4})$
	$\Sigma((\Gamma(4))!!!) + !4$	296	$.4 \times \Sigma(\Sigma(4!!))$
	$\Sigma(\Sigma(\Gamma(4))) - (\Gamma(4))!!$	300	$\frac{\Gamma(\Gamma(4))}{.4}$
	$4! \times 4!!$		$\Sigma(\sqrt{4}) \times alog(\sqrt{4})$
192	$(\Gamma(4))!! \times 4$		$\frac{\sqrt{4}}{(\sqrt{.4}) \%}$
	$((\Gamma(4))!!!!)!!!! + 4!$		$((\Gamma(4))!!!)^{\sqrt{4}}$
	$\Sigma(\Sigma(\Gamma(4))) - \Sigma(4!!)$	324	$(4!!)!! - \Sigma(\Sigma(4))$
200	$\frac{4!!}{4\%}$	329	$\Sigma(\Sigma(4)) \times \Gamma(4)$
	$4 \times (\Sigma(4))!!!!$	336	$\frac{(4!!)!}{\Gamma(\Gamma(4))}$
	$\sqrt{4} \cdot alog(\sqrt{4})$		$P(4!!, \Sigma(\sqrt{4}))$
	$((\Gamma(4))!!!!)!!!! + (4!!)!!!!$		
	$(\Sigma(4))!!! - (4!!)!!!$		

Integers	Equations	Integers	Equations
339	$(4!!)!! - atan(\Gamma(\sqrt{4}))$		$\frac{\sqrt{4}}{.4\%}$
345	$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4))$		$\Sigma(4) \times (\Sigma(4))!!!!!!$
	$asec(\sqrt{4}) \times \Gamma(4)$	500	
	$\Sigma(4!!) \times \Sigma(4)$	504	$4! \times \Sigma(\Gamma(4))$
360	$(\Gamma(4))!!! \times (\Sigma(4))!!!!!!$		$P(!4, \sqrt{!4})$
	$(4!!)!! - 4!$	512	$(4!!)^{\Sigma(\sqrt{4})}$
	$P(\Gamma(4), 4)$	525	$\frac{\Sigma(\Gamma(4))}{4\%}$
384	$(4 + 4)!!$	540	$4 \times atan(-\Gamma(\sqrt{4}))$
396	$(4!!)!! + (\Gamma(4))!!!!$	552	$P(4!, \sqrt{4})$
	$4 \times alog(\sqrt{4})$	576	$(4!)^{\sqrt{4}}$
	$4!! \times (\Sigma(4))!!!!$	600	$\frac{4!}{4\%}$
400	$\frac{4}{(\Gamma(\sqrt{4})) \%}$	630	$acsc(\sqrt{4}) \times \Sigma(\Gamma(4))$
	$\frac{4!!}{(\sqrt{4}) \%}$	675	$\frac{\Sigma(\sqrt{4})}{.4\%}$
	$((\Sigma(4))!!!!!!)^{\sqrt{4}}$	693	$\Sigma(\sqrt{4}) \times \Sigma(\Sigma(\Gamma(4)))$
	$\Sigma(\sqrt{4}) \times atan(-\Gamma(\sqrt{4}))$	700	$(\Gamma(4))! - \Sigma(4)!!!!!!$
405	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!}$	720	$\left(\frac{4!}{4}\right)!$
			$P(\Sigma(4), \Sigma(\sqrt{4}))$
435	$C(acsc(\sqrt{4}), \sqrt{4})$	729	$(\Sigma(\sqrt{4}))^{\Gamma(4)}$
441	$(\Sigma(\Gamma(4)))^{\sqrt{4}}$	750	$\frac{\Sigma(\sqrt{4})}{.4\%}$
444	$\sqrt{.4} \times \Sigma(\Sigma(4!!))$	756	$\Sigma(4!!) \times \Sigma(\Gamma(4))$
450	$\frac{\sqrt{4}}{.4\%}$		$4!! \times alog(\sqrt{4})$
462	$\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))$	800	$\frac{4!!}{(\Gamma(\sqrt{4})) \%}$
480	$4 \times \Gamma(\Gamma(4))$		$\Sigma(4) \times (4!!)!!!$

Integers	Equations	Integers	Equations
840	$\frac{\Gamma(4!!)}{\Gamma(4)}$	1,200	$\frac{(\Gamma(4))!!}{4\%}$
864	$\frac{(4!!)!!}{.\bar{4}}$	1,260	$\frac{\Gamma(4!!)}{4}$ $\text{asec}(\sqrt{4}) \times \Sigma(\Gamma(4))$
870	$P(\text{acsc}(\sqrt{4}), \sqrt{4})$		
896	$\frac{(4!!)!}{\text{atan}(\Gamma(\sqrt{4}))}$	1,296	$(\Gamma(4))^4$ $(\Sigma(4!!))^{\sqrt{4}}$
900	$\frac{4}{.\bar{4}\%}$ $(\text{acsc}(\sqrt{4}))^{\sqrt{4}}$	1,330	$C(\Sigma(\Gamma(4)), \Sigma(\sqrt{4}))$
924	$4 \times \Sigma(\Sigma(\Gamma(4)))$	1,350	$\frac{\Gamma(4)}{.\bar{4}\%}$
945	$\left(\frac{4}{.\bar{4}}\right)!!$	1,375	$\frac{\Sigma(\Sigma(4))}{4\%}$
960	$\frac{(4!!)!!}{.4}$	1,395	$\Sigma(\sqrt{4}) \times \Sigma(\text{acsc}(\sqrt{4}))$
990	$\Sigma(44)$	1,500	$\frac{\Gamma(4)}{.4\%}$
999	$\frac{\Sigma(\Sigma(4!!))}{\sqrt{.4}}$	1,620	$\frac{(\Gamma(4))!}{.\bar{4}}$ $(4!!)!$
1,000	$\frac{4}{.\bar{4}\%}$ $\Sigma(4) \times \text{alog}(\sqrt{4})$	1,680	$\frac{4!}{4!}$ $P(4!! , 4)$
1,008	$(\Gamma(4))!! \times \Sigma(\Gamma(4))$	1,800	$\frac{4!!}{.\bar{4}\%}$
1,024	$(\sqrt{4})^{\Sigma(4)}$ $((4!!)!!!!)^{\sqrt{4}}$ $\sqrt[.\bar{4}\%]{\sqrt{4}}$	1,806	$4\% \times \Sigma(\Sigma(4!!))$
1,080	$\frac{(\Gamma(4))!}{\sqrt{.4}}$	1,848	$4!! \times \Sigma(\Sigma(\Gamma(4)))$
1,125	$\frac{\text{atan}(\Gamma(\sqrt{4}))}{4\%}$	1,860	$4 \times \Sigma(\text{acsc}(\sqrt{4}))$
1,155	$\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))$	1,920	$\frac{(4!!)!}{\Sigma(\Gamma(4))}$
		1,998	$\Sigma(\sqrt{4}) \times \Sigma(\Sigma(4!!))$
		2,000	$\frac{4!!}{.4\%}$ $\text{alog}(\sqrt{4}) \times (\Sigma(4))!!!!!!$

Integers	Equations	Integers	Equations
2,024	$C(4!, \Sigma(\sqrt{4}))$	3,600	$(\text{asec}(\sqrt{4}))^{\sqrt{4}}$
2,025	$(\text{atan}(\Gamma(\sqrt{4})))^{\sqrt{4}}$	3,840	$\left(\frac{4}{4}\right)!!$
2,150	$\frac{\Sigma(\Sigma(4!))}{\Sigma(\Gamma(4))}$	3,850	$\frac{\Sigma(\Sigma(\Sigma(4)))}{.4}$
2,250	$\frac{\Sigma(4)}{.4\%}$		$(\Sigma(4))!!!! \times (4!!)!!!$
2,304	$((\Gamma(4))!!)^{\sqrt{4}}$	4,000	$(\Sigma(4))!!!!!! \times ((\Sigma(4))!!!!!!)!!!!!!$
2,500	$\frac{\Sigma(4)}{.4\%}$		$(4!!)^4$
	$((\Sigma(4))!!!!)^{\sqrt{4}}$	4,096	$4^{\Gamma(4)}$
2,640	$\Sigma(\Sigma(4)) \times (\Gamma(4))!!$		$\sqrt{\sqrt{4^{4!}}}$
2,664	$4 \times \Sigma(\Sigma(4!!))$	4,575	$\frac{\Sigma(\text{asec}(\sqrt{4}))}{.4}$
2,688	$\sqrt{.4\%} \times (4!!)!$	5,328	$4!! \times \Sigma(\Sigma(4!!))$
2,880	$4 \times (\Gamma(4))!$	5,400	$\frac{4!}{.4\%}$
2,940	$\frac{\Sigma((\Gamma(4))!!)}{.4}$	5,775	$\frac{\Sigma(\Sigma(\Gamma(4)))}{4\%}$
3,000	$\frac{\Gamma(\Gamma(4))}{4\%}$	5,985	$C(\Sigma(\Gamma(4)), 4)$
	$\text{acsc}(\sqrt{4}) \times \text{alog}(\sqrt{4})$	6,000	$\frac{4!}{.4\%}$
3,025	$(\Sigma(\Sigma(4)))^{\sqrt{4}}$	6,084	$(\Sigma((\Gamma(4))!!!!))^{\sqrt{4}}$
3,072	$(4!!)!! \times 4!!$	6,400	$((4!!)!!)^{\sqrt{4}}$
3,080	$\frac{\Sigma((4!!)!!)}{4!}$	6,561	$(\Sigma(\sqrt{4}))^{4!!}$
3125	$(E(4))^{E(4)}$	6,720	$\frac{(4!!)!}{\Gamma(4)}$
3,375	$\frac{\text{atan}(-\Gamma(\sqrt{4}))}{4\%}$	7,500	$\frac{\Sigma(4!)}{4\%}$
3,520	$\frac{\Sigma((4!!)!!)}{\Sigma(\Gamma(4))}$	7,776	$\sqrt[.4]{\Sigma(4!!)}$

Integers	Equations	Integers	Equations
7,980	$P(\Sigma(\Gamma(4)), \Sigma(\sqrt{4}))$	16,650	$\frac{\Sigma(\Sigma(4!!))}{4\%}$
8,064	$\sqrt{4\%} \times (4!!)!$	17,920	$.4 \times (4!!)!$
8,100	$(\text{asin}(\Gamma(\sqrt{4})))^{\sqrt{4}}$	18,000	$\frac{(\Gamma(4))!}{4\%}$
9,000	$\frac{.4}{.4\% \%}$	18,060	$.4 \times \Sigma(\Sigma(4!!))$
9,030	$\sqrt{4\%} \times \Sigma(\Sigma(4!!))$	18,150	$\frac{\Sigma(\Gamma(\Gamma(4)))}{.4}$
9,261	$(\Sigma(\Gamma(4)))^{\Sigma(\sqrt{4})}$	18,225	$(\text{atan}(-\Gamma(\sqrt{4})))^{\sqrt{4}}$
9,600	$\frac{(4!!)!!}{4\%}$	20,160	$\frac{(4!!)!}{\sqrt{4}}$
9,765	$\Sigma(\Gamma(4)) \times \Sigma(\text{acsc}(\sqrt{4}))$	20,736	$\left(((\Gamma(4))!!!) !!!!!!! \right)^{\sqrt{4}}$
10,000	$\text{alog}(4)$	21,735	$\Sigma(\Gamma(4)) \times \Sigma(\text{atan}(\Gamma(\sqrt{4})))$
	$(\Sigma(4))^4$	22,950	$\frac{\Sigma(\text{atan}(-\Gamma(\sqrt{4})))}{.4}$
10,080	$\frac{(4!!)!}{4}$	24,679	$\frac{\Sigma(\Sigma(\Sigma(4!!)))}{!4}$
10,395	$(4!! + \Sigma(\sqrt{4})) !!$	25,000	$\frac{\text{alog}(4)}{.4}$
10,836	$(4!) \% \times \Sigma(\Sigma(4!!))$	25,875	$\frac{\Sigma(\text{atan}(\Gamma(\sqrt{4})))}{4\%}$
11,160	$4! \times \Sigma(\text{acsc}(\sqrt{4}))$	26,244	$\left(((\Gamma(4))!!!) !!!!!!! \right)^{\sqrt{4}}$
11,625	$\frac{\Sigma(\text{acsc}(\sqrt{4}))}{4\%}$	26,880	$\sqrt{.4} \times (4!!)!$
12,144	$\frac{(4!)!}{(\Sigma(\Gamma(4)))!}$	28,224	$\left(((\Gamma(4))!!!) !!! \right)^{\sqrt{4}}$
12,600	$\frac{\Gamma(4!!)}{.4}$	29,241	$\left(\Sigma((\Gamma(4))!!!) \right)^{\sqrt{4}}$
13,986	$\Sigma(\Gamma(4)) \times \Sigma(\Sigma(4!!))$	29,400	$\frac{\Sigma((\Gamma(4))!!)}{4\%}$
14,400	$(\Gamma(\Gamma(4)))^{\sqrt{4}}$		
14,784	$\sqrt{4\%} \times \Sigma((4!!)!!)$		
15,984	$4! \times \Sigma(\Sigma(4!!))$		
16,128	$.4 \times (4!!)!$		

Integers	Equations	Integers	Equations
29,568	.4 × Σ((4!!)!!)	96,000	$\frac{(\Sigma(4))!!}{4\%}$
30,240	$\frac{(\Sigma(4))!}{\Gamma(\Gamma(4))}$	100,000	$alog(\sqrt{4}) \times alog(\Sigma(\sqrt{4}))$
38,500	$\frac{\Sigma(\Sigma(\Sigma(4)))}{4\%}$	100,800	$\frac{(4!!)!}{.4}$
40,000	$\left(((\Sigma(4))!!!!!!) !!!!!!! \right)^{\sqrt{4}}$	101,760	$!(\Gamma(4)) \times (4!!)!!$
45,750	$\frac{\Sigma(asin(\sqrt{4}))}{4\%}$	102,375	$\frac{\Sigma(asin(\Gamma(\sqrt{4})))}{4\%}$
46,080	(4!! + 4)!!	112,875	$\frac{\Sigma(\Sigma(4!))}{.4}$
49,280	$\sqrt{.4} \times \Sigma((4!!)!!)$	126,000	$\frac{\Gamma(4!!)}{4\%}$
53,361	$\left(\Sigma(\Sigma(\Gamma(4))) \right)^{\sqrt{4}}$	126,250	$\frac{\Sigma(alog(\sqrt{4}))}{4\%}$
60,480	$\frac{(4!!)!}{\sqrt{.4}}$	129,600	$\left(((\Gamma(4))!!!) !!!!!!! \right)^{\sqrt{4}}$
61,215	$\Sigma(\Sigma(\Gamma(4))) \times !(\Gamma(4))$	147,456	$((4!!)!!)^{\sqrt{4}}$
66,990	$\frac{\Sigma(\Sigma(\Sigma(\Gamma(4))))}{.4}$	151,200	$\frac{(\Sigma(4))!}{4!}$
70,225	$(!(\Gamma(4)))^{\sqrt{4}}$	166,320	$\frac{\Sigma((4!!)!!)}{.4}$
78,400	$\left((\Sigma(4))!!! \right)^{\sqrt{4}}$	181,500	$\frac{\Sigma(\Gamma(\Gamma(4)))}{4\%}$
80,000	$(4!!)!!! \times alog(\Sigma(\sqrt{4}))$	184,800	$\frac{\Sigma((4!!)!!)}{.4}$
82,944	$((4!)!!!!!!)!!^{\sqrt{4}}$	216,225	$\left(\Sigma(acsc(\sqrt{4})) \right)^{\sqrt{4}}$
85,995	$\Sigma(\Gamma(4)) \times \Sigma(asin(\Gamma(\sqrt{4})))$	221,760	$\Sigma(\sqrt{4}) \times \Sigma((4!!)!!)$
90,000	$(\Sigma(4!!))^{\sqrt{4}}$		
	$asin(\Gamma(\sqrt{4})) \times alog(\Sigma(\sqrt{4}))$		
90,720	$\frac{(4!!)!}{.4}$		

Integers	Equations

Integers	Equations

COMMENTS

Using just the two-4 solutions listed above for the “centuries” (i.e., 100, 200, 300, etc.) plus or minus the two-4 solutions for 1–100 (as I have done in Section II and following), I am currently able to create one or more complete solutions from 1–3,180 with no gaps, as well as large regions of the whole number domain beyond that. Adding, subtracting, multiplying, or dividing two two-4 solutions fills in additional numbers. As I discover more two-4 solutions for numbers greater than 3,000, I will be able to complete even more solutions using this technique.

NOTES

REFERENCES

There are many websites devoted to **The Four Fours Game**. The following list is representative, not exhaustive. The sites with the most solutions are bolded.

Bogomolny, Alexander — *Representation of numbers with four 4's*

http://www.cut-the-knot.org/arithmetic/funny/4_4.shtml

Bourke, Paul — *Four Fours Problem*

<http://paulbourke.net/fun/4444/>

Gleam — *The Four Fours Puzzle: To Infinity and Beyond*

<https://www.gleammath.com/post/the-four-fours>

Note: The WordArt object showing four 4s on the cover of *this* document can be found about 1/4 the way down this page, courtesy of PDFSlides.net (where I have seen my document, even though I didn't put it there; regardless, I am happy to see it making the rounds).

MathIsFun.com — *Four Fours Puzzle*

<https://www.mathsisfun.com/puzzles/four-fours-solution.html>

MersenneForum.org — *Classic Problem: Four 4's*

<http://www.mersenneforum.org/showthread.php?t=4756>

MurderousMaths — *Sunny's Four Fours Challenge*

<http://www.murderousmaths.co.uk/books/4x4chall.htm>

<http://www.murderousmaths.co.uk/books/4x4ans.htm>

Wheeler, David A. — *The Definitive Four Fours Answer Key*

<http://www.dwheeler.com/fourfours/>

Wheels.org — *The Four Fours Problem*

<http://wheels.org/math/44s.html>

Wikipedia.org — *Four Fours*

http://en.wikipedia.org/wiki/Four_fours

Valentine, John — *About Four Fours*

<http://johnvalentine.co.uk/fourfours.php>

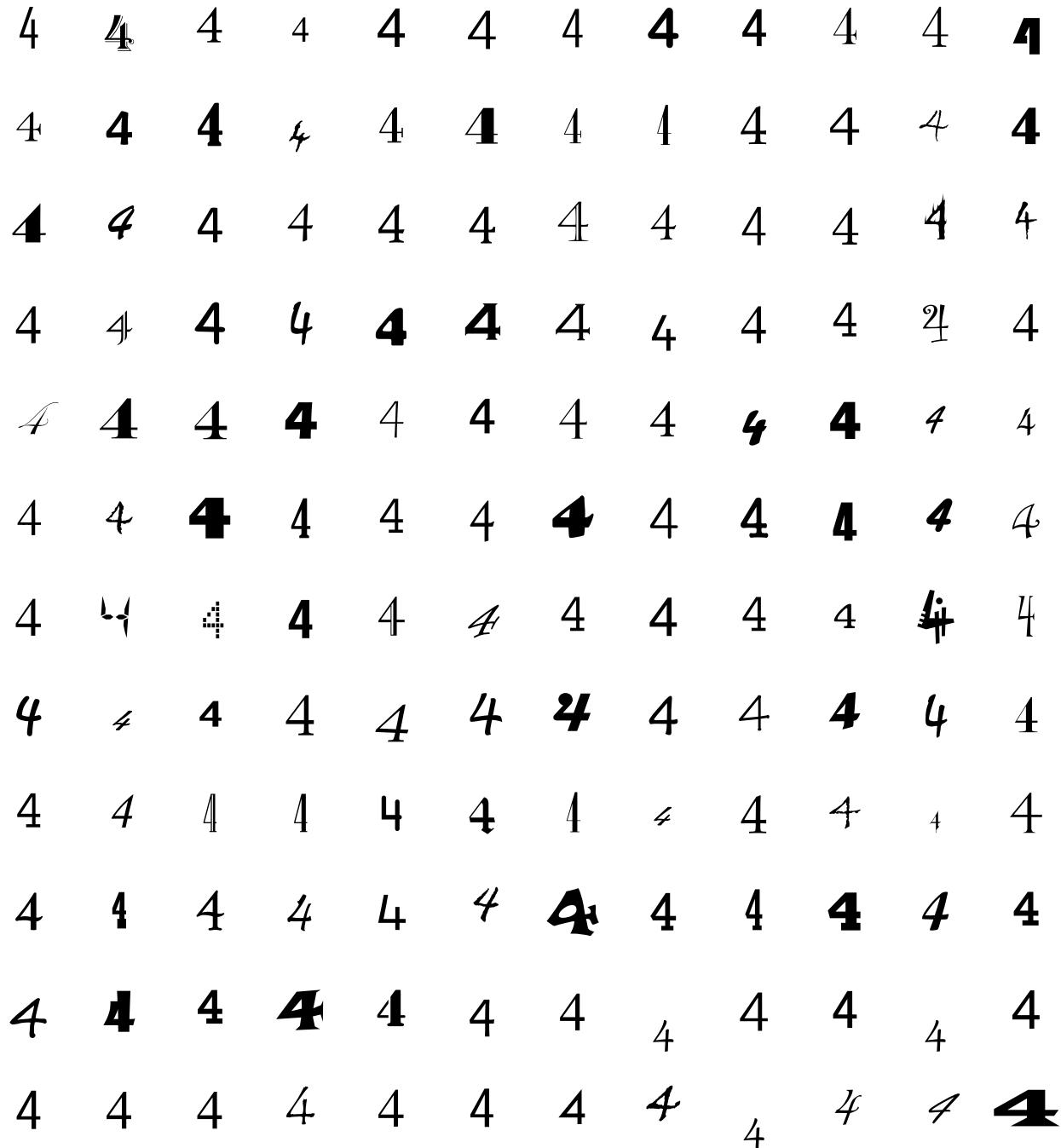
Wilson, Steven J. — *Intergermania*

<http://www.milefoot.com/math/integermania/four4s-1.htm>

I accessed and verified each of these websites on September 16, 2021. However, please be aware that websites disappear from time to time, including six sites I had listed in Version 3.30 of ***The Four Fours Game***. On the other hand, I found several new websites to add to this list that I hadn't found or didn't exist in 2012.

PARTING SHOTS

Here are some extra 4s for you to use, $(4 + 4 + 4)^{\sqrt{4}}$ to be exact and in 4! pt size.



“May the fours be with you.”

“Beware the dark side of the fours.”

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SECTION I — SOLUTIONS 1–100

Hang on, here we go...¹

1	$\frac{44}{44}$	$\sqrt{\frac{44}{44}}$	$\frac{4}{.4} - \frac{4}{.4}$	$\frac{4 + \sqrt{4}}{\left(\frac{4!}{4}\right)}$
	$\frac{4^4}{4^4}$	$4!! - 4 - \sqrt{4} - \Gamma(\sqrt{4})$	$4! + 4 - \Sigma(\Gamma(4)) - \Gamma(4)$	
	$\frac{4!! - 4}{\Gamma(4) - \sqrt{4}}$	$\frac{\Sigma(\Sigma(4)) - \Sigma(\Gamma(4))}{4! + \Sigma(4)}$	$\frac{\sqrt{4} \cdot a \log(\sqrt{4}) \cdot 4\%}{4!!}$	
2	$\frac{4}{4} + \frac{4}{4}$	$\sqrt{4 + \sqrt{4} + \sqrt{4} - 4}$	$4^{\left(\frac{4/4}{\sqrt{4}}\right)}$	
	$\frac{4!}{4 + 4 + 4}$	$\frac{\sqrt{4}}{.4} - \sqrt{\frac{4}{.4}}$	$\sqrt{\frac{4}{.4} - \frac{4}{4}}$	
	$\sqrt{4! + 4! - 44}$	$\sqrt{\sqrt[4]{4^{(4+4)}}}$	$\frac{4! + 4}{\Sigma(4) + 4}$	
3	$4 + \frac{4}{4} - \sqrt{4}$	$\sqrt{\sqrt{\left(\frac{4}{.4}\right)\left(\frac{4}{.4}\right)}}$	$\frac{4!}{4 + \sqrt{4} + \sqrt{4}}$	
	$\frac{4! \times 4}{\sqrt[4]{4}}$	$\frac{(\Gamma(4))!}{\sqrt{4} \times \left(\frac{\sqrt{4}}{.4}\right)!}$	$\frac{\Sigma(\Sigma(4) + 4)}{\Sigma(4!!) - \Gamma(\sqrt{4})}$	
4	$4 + 4 - \sqrt{4} - \sqrt{4}$	$\sqrt{4 + 4 + 4 + 4}$	$\frac{4!}{\sqrt{4} + \sqrt{4} + \sqrt{4}}$	
	$(\sqrt{4} + 4 - 4)^{\sqrt{4}}$	$4! + 4! - 44$	$\frac{44}{\Sigma(4) + \Gamma(\sqrt{4})}$	
	$\frac{.4 \times (\Sigma(4!!) + 4)}{4}$	$\sqrt{4! + \Sigma(4) + \sqrt{4} - \sqrt{4}}$	$44 - \sqrt{\frac{(4!!)!!}{(4!) \%}}$	
	$\sqrt{\sqrt{(\Gamma(4))^{(\Sigma(\sqrt{4}))} + \Sigma(4!!) + 4}}$		$\sqrt{\sqrt{\sqrt{\sqrt{(4 \times 4)^{(4+4)}}}}}$	

¹ The number of solutions provided for a particular integer most often reflects the amount of effort expended (or even dumb luck at stumbling across a solution) rather than the degree of difficulty. The solutions for 31, 33, 34, 36, and 38 that are flagged with *** are those solutions published in the Winter 1984 edition of *The Bent* (the quarterly magazine of Tau Beta Pi, the engineering honor society) that I had not independently developed.

SECTION I — SOLUTIONS 1–100

	$\sqrt[4]{\frac{4!! \Sigma(\sqrt{4})}{\sqrt{4}}}$	$\frac{4!}{\sqrt{4}} - 4 - 4$	$\frac{(4!!)!!}{\Gamma(4)} - \frac{4!}{.4}$
	$\frac{4!!}{.4} - (4 \times 4)$	$\frac{4!}{.4} \div \left(\frac{\sqrt{4}}{.4}\right)!!$	$\frac{4}{4\%} - (4! \times 4)$
	$\frac{\Sigma(4!!) + 4}{\Gamma(4) + 4}$	$\frac{4 \cdot alog(\sqrt{4})}{\left(\frac{4}{4\%}\right)}$	$\frac{4^4}{4^{\Sigma(\sqrt{4})}}$
4 (cont)	$\frac{(4!!)!}{alog(4) + (\Sigma(4) \times 4!!)}$	$\frac{\Gamma(\Gamma(4))}{4! + 4 + \sqrt{4}}$	
	$\sqrt{.4} \times \Sigma(\Sigma(\Gamma(4))) - \frac{\sqrt{.4}}{.4\%}$	$\left(\Sigma(\sqrt{4})\right)^4 - \frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})}$	
	$\frac{(\Gamma(4))! - \Gamma(\Gamma(4)) - \Gamma(\Gamma(4))}{\Gamma(\Gamma(4))}$	$\Sigma(alog(\sqrt{4})) - \Gamma(4!!) - 4 - \sqrt{4}$	
	$\sqrt{4} + \sqrt{4} + \frac{4}{4}$	$\frac{4!}{4} - \frac{4}{4}$	$\frac{4!}{4\%} \div \left(\frac{\sqrt{4}}{.4}\right)!$
5	$\sqrt{(\sqrt{4} + \sqrt{4})! + \frac{4}{4}}$	$\frac{(4 \times 4) + 4}{4}$	$\sqrt{\Sigma\left(\frac{\sqrt{4}}{.4}\right) + \frac{4}{4}}$
	$\frac{\sqrt{4}}{.4\%} \div \frac{4}{4\%}$	$\frac{\Sigma(\Gamma(4) + 4)}{4!! + \Sigma(\sqrt{4})}$	$\Sigma(\sqrt{4}) \sqrt{\frac{\Gamma(\Gamma(4)) + \frac{\sqrt{4}}{4}}{4}}$
	$4 + 4 + \sqrt{4} - 4$	$\frac{4 + 4 + 4}{\sqrt{4}}$	$\frac{4!}{.4} - \frac{4!}{.4}$
	$\frac{4! \times \sqrt{4}}{4 + 4}$	$\sqrt{4! + 4 + 4 + 4}$	$\frac{acsc(\sqrt{4})}{4 + \frac{4}{4}}$
6	$\frac{\Gamma(\Gamma(4))}{4! - \sqrt{4} - \sqrt{4}}$	$\frac{asec(\sqrt{4})}{4 + 4 + \sqrt{4}}$	$\frac{\Sigma(4!)!!}{4! + 4! + \sqrt{4}}$
	$\frac{4!}{4\%} \div \frac{4}{4\%}$	$P(\Gamma(4), 4) \div \frac{4!}{.4}$	$\frac{44 + 4}{4!!}$
	$\Sigma(\sqrt{4}) \sqrt{\Sigma(\Sigma(\Gamma(4))) - \Sigma\left(\frac{\sqrt{4}}{.4}\right)}$	$\sqrt{\Sigma\left((\Gamma(4))!!\right) + \left(4! \times \frac{\sqrt{4}}{.4}\right)}$	

SECTION I — SOLUTIONS 1–100

7	$4 + 4 - \frac{4}{4}$	$\frac{4!}{4} + \frac{4}{4}$	$\frac{4}{.4} - 4 + \sqrt{4}$
	$\sqrt{4! + 4! + \frac{4}{4}}$	$\frac{\Sigma(\Gamma(4))}{4 - \frac{4}{4}}$	$C(4!! , 4) \times \frac{.4}{4}$
8	$4 + 4 + 4 - 4$	$\sqrt{4} + \sqrt{4} + \sqrt{4} + \sqrt{4}$	$(4 \times 4) - 4 - 4$
	$\frac{4!}{4 - \frac{4}{4}}$	$\frac{4! \times \sqrt{4}}{4 + \sqrt{4}}$	$\sqrt{(4 \times 4!!) + \sqrt[4]{4}}$
9	$\frac{(\Gamma(4))! + (\Sigma(4) \times 4!!)}{alog(\sqrt{4})}$	$\frac{\Gamma(\Gamma(4))}{(4 \times 4) - \Gamma(\sqrt{4})}$	$\frac{\frac{4!!}{4\%} - 4!!}{4!}$
	$\frac{.4 \times \Sigma(4) \times 4!!}{4}$	$\frac{(4 + 4)!!}{4! + 4!}$	$\sqrt[4]{\Sigma(asin(\Gamma(\sqrt{4}))) + \frac{4}{4}}$
10	$4 + 4 + \frac{4}{4}$	$\frac{4!}{(.4)(4 + \sqrt{4})}$	$\frac{4!\sqrt{4}}{\sqrt{\sqrt{4^{4!}}}}$
	$\sqrt{(\Sigma(4) \times 4!!) + \frac{4}{4}}$	$\frac{4}{.4} \times \frac{4}{4}$	$\left(4 - \frac{4}{4}\right)^{\sqrt{4}}$
11	$4 + 4 + 4 - \sqrt{4}$	$4 + \sqrt{4} + \sqrt{4} + \sqrt{4}$	$4! - \frac{4}{.4} - 4$
	$\frac{4!}{(.4)(4 + \sqrt{4})}$	$\frac{4}{4\%} \div \frac{4}{.4}$	$\sqrt{((4! + \sqrt{4}) \times 4) - 4}$
11	$atan(-\Gamma(\sqrt{4})) - \Sigma(\Sigma(4)) - C(4!! , 4)$	$\left(\frac{\sqrt{4}}{.4}\right)! \times B(\sqrt{4}, \Sigma(\sqrt{4}))$	
	$\frac{alog(4)}{\Sigma(4) \times \Sigma(4) \times \Sigma(4)}$	$\frac{\Gamma(4!!)}{\frac{\sqrt{4}}{4\%} + 4}$	$\frac{\left(\frac{4}{.4}\right)!!}{(4 + 4)!!}$
11	$\frac{4}{.4} + \frac{4}{4}$	$\frac{\sqrt{4}}{.4} + 4 + \sqrt{4}$	$\frac{4!}{\sqrt{4}} - \frac{4}{4}$
	$4!! + 4 - \frac{4}{4}$	$\frac{44}{\sqrt{4} + \sqrt{4}}$	$\Sigma(\Gamma(4)) - 4 - 4 - \sqrt{4}$
11	$\sqrt{\left(\frac{\sqrt{4}}{.4}\right)! + \frac{4}{4}}$	$4 + 4 + \sqrt{\frac{4}{.4}}$	$\sqrt[\Sigma(\sqrt{4})]{C(\Sigma(\Gamma(4)), \Sigma(\sqrt{4})) + \Gamma(\sqrt{4})}$

SECTION I — SOLUTIONS 1–100

	$4 + 4 + \sqrt{4} + \sqrt{4}$	$4 \times \left(4 - \frac{4}{4}\right)$	$\frac{4! \times 4}{4 + 4}$
12	$\frac{4!^{\sqrt{4}}}{4! + 4!}$	$\sqrt{alog(\sqrt{4}) + 4! + 4! - 4}$	$\sqrt{\sqrt{(4 \times \Gamma(4!!)) + 4!^{\sqrt{4}}}}$
	$(4!! \cdot \Gamma(4)) - \Sigma(4 + 4)$		$\Sigma(alog(\sqrt{4})) - \Gamma(4!!) + 4 - \sqrt{4}$
	$\frac{44}{4} + \sqrt{4}$	$4 + 4 + \frac{\sqrt{4}}{.4}$	$\frac{4}{.4} + \sqrt{4} + \sqrt{4}$
13	$4! - \frac{44}{4}$	$\frac{4}{.4} + \sqrt{\frac{4}{.4}}$	$atan\left(\frac{4}{4}\right) - (4!! \times 4)$
	$\frac{4 + 4 + \sqrt{.4}}{\sqrt{.4}}$	$\frac{44 + 4!!}{4}$	$\sqrt{\frac{(4!!)!}{(4!!)!!} + \frac{(4!!)!!}{\Gamma(4)}}$
14	$4 + 4 + 4 + \sqrt{4}$	$4! - 4 - \frac{4!}{4}$	$\frac{4! + 4}{4 - \sqrt{4}}$
	$\frac{\Sigma(4 \times 4) + 4}{\Sigma(4)}$	$\sqrt{\frac{4 + 4}{4\%} - 4}$	$\frac{(4!!)!! + 4!!}{4! + 4}$
15	$(4 \times 4) - \frac{4}{4}$	$\frac{4}{.4} + \frac{\sqrt{4}}{.4}$	$\frac{4!}{\sqrt{4}} - \sqrt{\frac{4}{.4}}$
	$\frac{4}{.4} + 4 + \sqrt{4}$	$\frac{\sqrt{4}}{.4} \times \sqrt{\frac{4}{.4}}$	$\sqrt{\frac{\sqrt{4}}{4\%} \times \frac{\sqrt{4}}{.4}}$
	$\left(\sqrt{\sqrt{4^{4!}}} - 4\right) \div 4$	$\frac{\frac{4!}{4!!} atan(-\Gamma(\sqrt{4}))}{4\%}$	$\frac{(4!! - \Gamma(\sqrt{4}))!!}{4!! - \Gamma(\sqrt{4})}$
16	$4 + 4 + 4 + 4$	$\frac{4 \times 4 \times 4}{4}$	$\sqrt{4} \times \sqrt{4} \times \sqrt{4} \times \sqrt{4}$
	$\frac{4}{.4} + \frac{4!}{4}$	$(4 + 4 - 4)^{\sqrt{4}}$	$\sqrt{(acsc(\sqrt{4}) \times \Sigma(4)) - 44}$
	$\frac{4! + 4!}{\sqrt{\frac{4}{.4}}}$	$\frac{4^4}{4^{\sqrt{4}}}$	$\frac{4 \cdot 4}{4\%} - (4!!)!!$

SECTION I — SOLUTIONS 1–100

	$\frac{\Sigma(\sqrt{4})}{\sqrt{(4+4)^4}}$	$\frac{.4 \times (4!!)!}{alog(\Sigma(\sqrt{4})) + 4!!}$	$\left(\frac{\sqrt{4}}{.4}\right)!! + \frac{4}{4}$
16 (cont)	$4^4 - (4! \times \Sigma(4))$	$4! - 4 - \sqrt{4} - \sqrt{4}$	$\frac{(4!!)!!}{\Gamma(4)} - 4! - 4!$
	$\frac{(4!!)!}{4 \times acsc(\sqrt{4}) \times \Sigma(\Gamma(4))}$	$atan\left(\frac{4}{4}\right) - 4!! - \Sigma(\Gamma(4))$	$\sqrt{\Sigma(\Gamma(4)) + 4! + \frac{4}{4}}$
	$(4 \times 4) + \frac{4}{4}$	$\frac{4!}{\sqrt{4}} + \frac{\sqrt{4}}{.4}$	$4 + 4 + \frac{4}{.4}$
17	$\frac{44 + 4!}{4}$	$\frac{4 + 4 - .4}{.4}$	$\frac{\sqrt{\sqrt{4^{4!}}} + 4}{4}$
	$\sqrt{\Sigma(4!) - \Sigma(4) - \frac{4}{4}}$	$4 + 4!! + \frac{\sqrt{4}}{.4}$	$4! - 4!! + \frac{4}{4}$
	$(4 \times 4) + 4 - \sqrt{4}$	$4 + 4 + \frac{4}{.4}$	$\frac{4!}{\sqrt{4}} + \frac{4!}{4}$
18	$4 + 4 + 4 + \Gamma(4)$	$\sqrt{4} \times \left(4!! + \frac{4}{4}\right)$	$\frac{4!}{4!!} \times \frac{4!}{4}$
	$\frac{4 \cdot atan(\Gamma(\sqrt{4}))}{4!! + \sqrt{4}}$	$\frac{asec(\sqrt{4}) \times \Gamma(4)}{4! - 4}$	$\frac{\left(\frac{(\Gamma(4))!}{\sqrt{.4}}\right)}{\left(\frac{4!}{.4}\right)}$
	$\frac{4! + 4! + 4!}{4}$	$\frac{4 - .4}{(.4)(.4)}$	$\sqrt{\left(\sqrt{\frac{4}{.4\%}} \cdot \Sigma(4)\right) + 4!}$
19	$4! - 4 - \frac{4}{4}$	$(4 \times 4) + \sqrt{\frac{4}{.4}}$	$\frac{4}{.4} + \frac{4}{.4}$
	$\frac{4 + 4 \cdot .4}{.4}$	$\frac{4!}{\sqrt{4}} + 4!! - \Gamma(\sqrt{4})$	$\sqrt{(4!!)!! - 4! + \frac{4}{4}}$
	$\sqrt{P(\Gamma(4), 4) + \frac{4}{4}}$	$\sqrt{\left(\Sigma(\Gamma(4))\right)^{\sqrt{4}} - (\Sigma(4) \times 4!!)}$	

SECTION I — SOLUTIONS 1–100

	$(4 \times 4) + \sqrt{4} + \sqrt{4}$	$\frac{4!}{\sqrt{4}} + 4 + 4$	$\frac{4^{\sqrt{4}}}{.4 \times \sqrt{4}}$
20	$\sqrt{4} \times (4 + 4 + \sqrt{4})$	$\frac{4!}{.4 \times \sqrt{\frac{4}{.4}}}$	$\sqrt{\frac{\sqrt{4}}{.4\%} - \frac{4}{4\%}}$
	$\frac{(4!!)!}{4! \times \Sigma(\Gamma(4)) \times 4}$	$4! + 4 - 4 - 4$	$\frac{(4!! + \sqrt{4})!!!!}{4 + \sqrt{4}}$
	$4! - 4 + \frac{4}{4}$	$\frac{4!}{\sqrt{4}} + \frac{4}{.4}$	$(4 \times 4) + \frac{\sqrt{4}}{.4}$
21	$\frac{4 + 4 + .4}{.4}$	$\frac{44 - \sqrt{4}}{\sqrt{4}}$	$\frac{alog(\sqrt{4}) - (4 \times 4)}{4}$
	$\sqrt{444 - \Sigma(\sqrt{4})}$	$\frac{\Gamma(4!!)}{4!} \times \frac{.4}{4}$	$\Sigma(\Sigma(4) + 4!!) - \frac{\sqrt{.4}}{.4\%}$
	$(4 \times 4) + 4 + \sqrt{4}$	$\frac{4!}{\sqrt{4}} + \frac{4}{.4}$	$\frac{44}{4 - \sqrt{4}}$
22	$\frac{44 \times \sqrt{4}}{4}$	$\frac{44 \times 4}{4!!}$	$44 \times \sin\left(\sqrt{\frac{4}{.4\%}}\right)$
	$\frac{\Gamma(\Gamma(4)) + alog(\sqrt{4})}{4!! + \sqrt{4}}$	$\sqrt{(4 + 4)!! + \frac{4}{4\%}}$	$\frac{(4 \times 4) - \sqrt{4})!!!!}{4!}$
	$4! - \sqrt{4} + \frac{4}{4}$	$\frac{44 + \sqrt{4}}{\sqrt{4}}$	$\Sigma(4 + \sqrt{4}) - \frac{4}{\sqrt{4}}$
23	$\frac{(4! \times 4) - 4}{4}$	$\frac{4!^{\sqrt{4}} - 4!}{4!}$	$\frac{(4! \times \Sigma(4)) - \Sigma(4)}{\Sigma(4)}$
	$\sqrt{(4!!)^{\Sigma(\sqrt{4})} + \Sigma(\Gamma(4)) - 4}$		$asin\left(\frac{\sqrt{4}}{4}\right) - 4!! + \Gamma(\sqrt{4})$
	$(4 \times 4) + 4 + 4$	$4 \times (\sqrt{4} + \sqrt{4} + \sqrt{4})$	$(4 + 4 + 4) \times \sqrt{4}$
24	$\frac{44 + 4}{\sqrt{4}}$	$\left(\frac{\sqrt{4}}{.4} \times 4\right) + 4$	$(4 + 4) \times \sqrt{\frac{4}{.4}}$
	$\frac{\frac{4}{4\%} - 4}{4}$	$\left(\frac{\sqrt{4}}{4\%} + 4\right) \times .\bar{4}$	$\frac{(\Gamma(4))^{\Sigma(\sqrt{4})} + 4!}{\Sigma(4)}$

SECTION I — SOLUTIONS 1–100

24 (cont)	$4 \times \Sigma(\sqrt{4}) \times \sqrt{4} \times \Gamma(\sqrt{4})$	$\frac{\frac{4}{.4} - .4}{.4}$	$\frac{\frac{4}{.4} + \sqrt{.4}}{.4}$
	$\left(\frac{\sqrt{4}}{.4}\right)! \times \frac{.4}{\sqrt{4}}$	$\frac{(4+4)!!}{4 \times 4}$	$\frac{(4+4)!}{P(4!! , 4)}$
	$\sqrt[4]{\frac{4!}{4\%} - 4!}$	$\sqrt{\frac{\sqrt{4}}{4\%} + \Sigma(\Sigma(4)) + \Sigma(\Gamma(4))}$	
25	$4! + \sqrt{4} - \frac{4}{4}$	$(4 \times 4) + \frac{4}{.4}$	$\frac{4! - 4}{.4 + .4}$
	$\frac{\sqrt{4}}{.4} \times \frac{\sqrt{4}}{.4}$	$\left(4 + \frac{4}{4}\right)^{\sqrt{4}}$	$\frac{4 \cdot \bar{4}}{(.4)(.4)}$
	$\frac{\left(\frac{4}{.4\%}\right)}{(\Gamma(4))!! - 4!!}$	$4! + 4 - \sqrt{\frac{4}{.4}}$	$\Sigma(4+4) - (4!! + \Sigma(\sqrt{4}))$
	$\frac{4!^{\sqrt{4}} + 4!}{4!}$	$\frac{4^4 - \Gamma(4)}{\Sigma(4)}$	$\frac{4!!}{.4} + \frac{\sqrt{4}}{.4}$
26	$\sqrt{\frac{4!}{4\%} + \Sigma(\Gamma(4)) + 4}$	$\Sigma(\Gamma(4)) + 4!! - \sqrt{4 \times 4}$	$\frac{(4! \times 4) + 4}{4}$
	$(4 \times 4) + \frac{4}{.4}$	$\frac{4!}{\sqrt{4}} - \sqrt{4}$	$\frac{4!}{\sqrt{.4}} - \frac{4}{.4}$
	$\frac{\frac{4}{.4\%} + 4}{4}$	$44 - \frac{4!!}{.4}$	$\sqrt{\Sigma(\Sigma(4!!)) + 4 + 4 + \sqrt{4}}$
27	$\frac{(4!!)!}{P(4!! , 4)} + \sqrt{4}$	$\Sigma(\Gamma(4)) + 4 + \frac{4}{4}$	$\left(4!! + \frac{\sqrt{4}}{.4}\right) \times \sqrt{4}$
	$4! + 4 - \frac{4}{4}$	$\left(\sqrt{\frac{4}{.4}}\right)^{\sqrt{\frac{4}{.4}}}$	$\frac{4!!}{.4} + \frac{4}{.4}$
	$\frac{4}{.4} \times \sqrt{\frac{4}{.4}}$	$\frac{\Gamma(\Gamma(4))}{4} - \sqrt{\frac{4}{.4}}$	$\frac{\left(\frac{\Gamma(\Gamma(4))}{.4}\right)}{\Gamma(4) + 4}$
28	$\sqrt{(\Gamma(4))! + 4!! + \frac{4}{4}}$	$\frac{alog(\sqrt{4}) + 4 + 4}{4}$	$atan\left(\frac{4}{4}\right) - (4 \times 4) - \sqrt{4}$

SECTION I — SOLUTIONS 1–100

	$((4 \times 4) - \sqrt{4}) \times \sqrt{4}$	$4! + 4 + 4 - 4$	$\frac{4!}{.4 + .4} - \sqrt{4}$
28	$\frac{\frac{4!}{.4} + \sqrt{4}}{\sqrt{4}}$	$\frac{\frac{4!}{\sqrt{4}} + .4}{.4}$	$\sqrt{(4 + \sqrt{4})! + 4^{\Sigma(\sqrt{4})}}$
	$\frac{\left(\frac{\sqrt{4}}{.4}\right)! - 4!!}{4}$	$(4 \times 4) + \frac{4!}{\sqrt{4}}$	$4 \times \left(4 + \frac{4!}{4!!}\right)$
29	$4! + 4 + \frac{4}{4}$	$\frac{\frac{4!}{.4} + 4}{\sqrt{4}}$	$\arcsin\left(\frac{\sqrt{4}}{4}\right) - \frac{4}{4}$
	$\sqrt{P(acsc(\sqrt{4}), \sqrt{4}) - (acsc(\sqrt{4}) - \Gamma(\sqrt{4}))}$		$(4 \times 4) + \Sigma(4) + \Sigma(\sqrt{4})$
30	$4! + 4 + 4 - \sqrt{4}$	$(4^{\sqrt{4}} \times \sqrt{4}) - \sqrt{4}$	$\frac{4}{.4} \times \sqrt{\frac{4}{.4}}$
	$\frac{4!!}{.4} + \frac{4!}{\sqrt{4}}$	$\frac{\sqrt{\sqrt{4^{4!}}} - 4}{\sqrt{4}}$	$\sqrt{\Sigma(44) - \frac{.4}{.4\%}}$
31	$4! + \frac{4! + 4}{4}$	$\frac{\frac{4!}{\sqrt{4}} + .4}{.4}$	$\frac{***}{(4 + \sqrt{4})! + 4!}$
	$\frac{\sqrt{\sqrt{4^{4!}}} - \sqrt{4}}{\sqrt{4}}$	$\sqrt{\left(\frac{4}{.4}\right)!! + (4 \times 4)}$	$(4!! \times 4) - \frac{4}{4}$
32	$(4 \times 4) + (4 \times 4)$	$\frac{4 \times 4 \times 4}{\sqrt{4}}$	$4! + \frac{4!}{\sqrt{4}} - 4$
	$4!! + 4!! + 4!! + 4!!$	$\frac{\Sigma(4!) + 4! - 4}{\Sigma(4)}$	$(4! \times 4) - \sqrt{\sqrt{4^{4!}}}$
	$\sqrt{(\sqrt{4})^{(4+4+\sqrt{4})}}$	$\sqrt{C(4!, \Sigma(\sqrt{4})) - \frac{4}{.4\%}}$	$\sqrt[4]{\sqrt{4\%} \sqrt{4 \times 4}}$
	$4! \times \frac{4}{\sqrt[4]{.4}}$	$\frac{(\Sigma(\Sigma(4) \times \Gamma(4))) - \Sigma(4)}{\Sigma(4)}$	$\Sigma(4 + 4) - \sqrt{4} - \sqrt{4}$

SECTION I — SOLUTIONS 1–100

	$4! + 4 + \frac{\sqrt{4}}{.4}$	$\frac{4!}{\sqrt{.4}} - \sqrt{\frac{4}{.4}}$	$\frac{\sqrt{\sqrt{4^{4!}}} + \sqrt{4}}{\sqrt{4}}$ ***
33	$(4 \cdot 4 \cdot \sqrt{4}) + \Gamma(\sqrt{4})$	$(4!! + \Sigma(\sqrt{4})) \times \sqrt{\frac{4}{.4}}$	$\sqrt{\frac{(\Gamma(4))!}{\sqrt{.4}}} + \frac{4}{.4}$
	$((4 \div 4\%) - \Gamma(\sqrt{4})) \div \Sigma(\sqrt{4})$		$(4!! \times 4) + \frac{4}{4}$
	$4! + 4 + 4 + \sqrt{4}$	$44 - \frac{4}{.4}$	$(4 \times 4 \times \sqrt{4}) + \sqrt{4}$
34	$44 - \Gamma(4) - 4$	$\left(a \log(\sqrt{4}) + \frac{4!}{\sqrt{.4}}\right) \div 4$	$\frac{\sqrt{((4)(4+4))} + \sqrt{4}}{4}$ ***
	$\sqrt{\left(\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))\right) + \frac{4}{4}}$		$(4!! \times 4) + \frac{4}{\sqrt{4}}$
	$4! + \frac{44}{4}$	$44 - \frac{4}{.4}$	$\frac{4!}{\sqrt{.4}} - \frac{4}{4}$
35	$4! + 4!! + \sqrt{\frac{4}{.4}}$	$\left(\frac{\sqrt{4}}{.4}\right)(4!! - \Gamma(\sqrt{4}))$	$\frac{a \log(\sqrt{4})}{4} + \frac{4}{.4}$
	$\sqrt{\left(\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))\right) + C(4!!, 4)}$		$(4!! \times 4) + \frac{4!}{4!!}$
	$4! + 4 + 4 + 4$	$((4 \times 4) + \sqrt{4})(\sqrt{4})$	$(\sqrt{4} + \sqrt{4} + \sqrt{4})^{\sqrt{4}}$
	$\frac{4 \times 4}{.4} - 4$	$(4!! \times 4) + \frac{4!}{4!!}$	$\frac{\sqrt{4}}{4} - 4 - 4$ ***
	$\frac{4!! + 4 + 4}{.4}$	$\frac{(\Gamma(4))!}{4! - \sqrt{4} - \sqrt{4}}$	$4 \times \left(4!! + \frac{4}{4}\right)$
36	$\frac{4!}{\sqrt{4}} \times \sqrt{\frac{4}{.4}}$	$4!! \times \left(4 + \frac{\sqrt{4}}{4}\right)$	$(\Gamma(4))!! \times \frac{\Gamma(4)}{4 \times \sqrt{4}}$
	$\sqrt{(\sqrt{4} + \sqrt{4} + \sqrt{4})^4}$	$\sqrt{4! \times \left(\frac{\sqrt{4}}{4\%} + 4\right)}$	$a \sin\left(\frac{\sqrt{4}}{4}\right) + 4 + \sqrt{4}$
	$\sqrt{\Sigma\left((4 + \sqrt{4})!!\right) + \left(\frac{\sqrt{4}}{.4}\right)!}$		$(4!! \times 4) + \frac{4!}{4!!}$

SECTION I — SOLUTIONS 1–100

37	$4! + \frac{4! + \sqrt{4}}{\sqrt{4}}$	$(4!! \times 4) + \frac{4!}{4!!}$	$\frac{4!}{\sqrt{.4}} + \frac{4}{4}$
	$4! + 4!! + \frac{\sqrt{4}}{.4}$	$(4!! \times 4) + \frac{4!}{4!!}$	$\sqrt{\frac{\Gamma(4)}{.4\%} + \Sigma(\Gamma(4)) - \sqrt{4}}$
38	$4! + (4 \cdot 4) - \sqrt{4}$	$(4!! \times 4) + \frac{4!}{4!!}$	$\frac{***}{44 - 4 - \sqrt{4}}$
	$\sqrt{\Sigma(\Sigma(\Sigma(4))) - ((4! + 4!) \cdot \sqrt{4})}$		$(4!! \times 4) + \frac{4!}{4!!}$
39	$44 - \frac{\sqrt{4}}{.4}$	$(4!! \times 4) + \frac{4!}{4!!}$	$\frac{4!}{\sqrt{.4}} + \sqrt{\frac{4}{.4}}$
	$\sqrt{\frac{\Gamma(4)}{.4\%} + \Sigma(4 + \sqrt{4})}$	$(4!! \times 4) + \frac{4!}{4!!}$	$(4!! \times 4) + 4!! - \Gamma(\sqrt{4})$
40	$4 \times (4 + 4 + \sqrt{4})$	$4! + 4! - 4 - 4$	$(4 \cdot 4 \cdot 4) - 4!$
	$44 + 4 - 4 - 4$	$\sqrt{\frac{(\Gamma(4))!}{.4} - 4! + 4}$	$\sqrt{\frac{\Gamma(4)}{.4\%} + \frac{4}{4\%}}$
	$\frac{4^{\Sigma(\sqrt{4})}}{\sqrt{4} - .4}$	$(4!! \times 4) + 4 + 4$	$\frac{4}{4\%} - \frac{4!}{.4}$
41	$\frac{4! + \sqrt{4}}{.4} - 4!$	$\frac{(4 \times 4) + .4}{.4}$	$\frac{4! - 4}{.4} - 4$
	$44 - \sqrt{\frac{4}{.4}}$	$\sqrt{P(4!!, 4) + \frac{4}{4}}$	$(4!! \times 4) + \frac{4}{.4}$
42	$44 - 4 + \sqrt{4}$	$4! + 4! - 4 - \sqrt{4}$	$\frac{\sqrt{4}}{4\%} - 4 - 4$
	$\Gamma(4) \times \left(4!! - \frac{4}{4}\right)$	$\frac{4!}{\sqrt{.4}} + 4 + \sqrt{4}$	$\sqrt{\frac{4!!}{.4\%} - \frac{4!}{\sqrt{.4}}}$
43	$44 - \frac{4}{4}$	$4! + 4! - \frac{\sqrt{4}}{.4}$	$\frac{.4}{(\sqrt{4})(.4\%)} - \sqrt{4}$
	$\sqrt{\frac{4!!}{.4\%} + atan(\Gamma(\sqrt{4})) + 4}$	$\sqrt{\Sigma(asec(\sqrt{4})) + \Sigma(4) + \frac{4}{.4}}$	

SECTION I — SOLUTIONS 1–100

	$44 + 4 - 4$	$4! + 4! - \sqrt{4} - \sqrt{4}$	$\frac{4 \times .44}{4\%}$
44	$4 \times \left(4!! + \sqrt{\frac{4}{.4}} \right)$	$\text{atan}\left(\frac{4}{4}\right) - \frac{4}{4}$	$\frac{(4 \times \Sigma(\Gamma(4))) + 4}{\sqrt{4}}$
	$\sqrt{\frac{4!!}{.4\%} - \frac{(4!!)!!}{\Gamma(4)}}$	$\sqrt{\frac{(\Sigma(4))!! + \sqrt[4]{4}}{\sqrt{4}}}$	$\Sigma\left(\frac{4}{.4}\right) - \frac{4}{4}$
45	$44 + \frac{4}{4}$	$4! + 4! - \sqrt{\frac{4}{.4}}$	$\frac{4! - \sqrt{4} - \sqrt{4}}{.4}$
	$\text{atan}\left(\frac{44}{44}\right)$	$\Sigma\left(\Sigma(\sqrt{4 \times 4})\right) - \frac{4}{.4}$	$4! \times \frac{\left(\frac{\sqrt{4}}{.4}\right)!!}{4!!}$
	$\sqrt{C\left(4!, \Sigma(\sqrt{4})\right) + \frac{4}{4}}$	$\Sigma\left(4 + 4 + \frac{4}{4}\right)$	$\frac{4}{.4} \times \frac{\sqrt{4}}{.4}$
46	$44 + 4 - \sqrt{4}$	$\frac{4! - 4}{.4} - 4$	$\frac{4! - 4 + .4}{.4}$
	$\sqrt{4} \times \left(4! - \frac{4}{4}\right)$	$\frac{(4! \times 4) - 4}{\sqrt{4}}$	$\text{atan}\left(\frac{4}{4}\right) + \frac{4}{4}$
	$\sqrt{\frac{4!!}{.4\%} + \Gamma(\Gamma(4)) - 4}$	$\Sigma\left(\frac{4}{.4}\right) + \frac{4}{4}$	$\frac{(4!!)!! - (4!!)!!!!!!}{4!!}$
47	$4! + 4! - \frac{4}{4}$	$\frac{\sqrt{4}}{4\%} - \sqrt{\frac{4}{.4}}$	$44 + \sqrt{\frac{4}{.4}}$
	$\sqrt{\Sigma((\Gamma(4))!!) + \Sigma\left(\text{atan}\left(\frac{4}{4}\right)\right) - \sqrt{4}}$		$\text{atan}\left(\frac{4}{4}\right) + \frac{4}{\sqrt{4}}$
	$(4 + 4 + 4) \times 4$	$(4 + 4)(4 + \sqrt{4})$	$(4! + 4!) \left(\frac{4}{4}\right)$
48	$4 \times 4 \times \sqrt{\frac{4}{.4}}$	$\frac{\frac{4}{4\%} - 4}{\sqrt{4}}$	$\sqrt{\sqrt{\sqrt{4^{4!}}} - (4 \times 4)}$
	$\frac{(4!!)!! + (4! \times 4)}{\Sigma(4)}$		$\sqrt{\sqrt{4} \times \left((\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))) - \Sigma(\sqrt{4}) \right)}$

SECTION I — SOLUTIONS 1–100

	$4! + 4! + \frac{4}{4}$	$\frac{\sqrt{4}}{4\%} - \frac{4}{4}$	$\frac{4! - 4}{.4} + 4$
49	$\left(4!! - \frac{4}{4}\right)^{\sqrt{4}}$	$\left(4 + \sqrt{\frac{4}{.4}}\right)^{\sqrt{4}}$	$\operatorname{atan}\left(\frac{4}{4}\right) + \sqrt{4} + \sqrt{4}$
	$\sqrt{(4! \times \operatorname{alog}(\sqrt{4})) + \frac{4}{4}}$	$\operatorname{asec}(\sqrt{4}) - 4!! - \frac{4!}{4!!}$	$\frac{\frac{4}{4\%} - \sqrt{4}}{\sqrt{4}}$
50	$44 + 4 + \sqrt{4}$	$\frac{4!}{.4} - \frac{4}{.4}$	$\frac{\sqrt{4}}{.4} \times \frac{4}{.4}$
	$4! + 4! + 4 - \sqrt{4}$	$\left(4! + \frac{4}{4}\right) \times \sqrt{4}$	$\frac{4}{(4!) \%} \times \sqrt{\frac{4}{.4}}$
	$\sqrt{\frac{4 + 4 + \sqrt{4}}{.4\%}}$	$\sqrt{\frac{\operatorname{alog}(\sqrt{4})}{4} \times \frac{4}{4\%}}$	$\Sigma\left(\frac{4}{.4}\right) - \frac{\sqrt{4}}{.4}$
51	$\frac{4! - \sqrt{4}}{.4} - 4$	$\frac{4!}{.4} - \frac{4}{.4}$	$\frac{\sqrt{4}}{4\%} + \frac{4}{4}$
	$\frac{4! - 4 + .4}{.4}$	$\sqrt{\frac{\Sigma(4)}{.4\%} + \operatorname{alog}(\sqrt{4}) + \Gamma(\sqrt{4})}$	
52	$\frac{4! - 4}{.4} + \sqrt{4}$	$\frac{4}{4\%} - 4! - 4!$	$\frac{4!}{.4} - 4 - 4$
	$\sqrt{(\Sigma(\Sigma(4)) \times (\Gamma(4))!!) + \frac{(4!!)!!}{\Gamma(4)}}$		$(4!! \times 4) + 4! - 4$
53	$\frac{4! - \sqrt{4}}{.4} - \sqrt{4}$	$44 + \frac{4}{.4}$	$\frac{\sqrt{4}}{4\%} + \sqrt{\frac{4}{.4}}$
	$\sqrt{\Sigma(\operatorname{asec}(\sqrt{4})) + \frac{4}{.4\%} - \Sigma(\Gamma(4))}$	$\sqrt{(\Sigma(\Sigma(4)))^{\sqrt{4}} - (\Gamma(4))^{\Sigma(\sqrt{4})}}$	
54	$\frac{4! - 4}{.4} + 4$	$\frac{.4}{.4\%} - \frac{4!}{\sqrt{.4}}$	$\frac{4!}{.4} - 4 - \sqrt{4}$
	$\sqrt{(\Sigma(4))!! - \frac{4}{.4\%} - 4!}$		$(4!! \times 4) + 4! - \sqrt{4}$

SECTION I — SOLUTIONS 1–100

	$\frac{\left(\frac{44}{.4}\right)}{\sqrt{4}}$	$\frac{\sqrt{4}}{4\%} + \frac{\sqrt{4}}{.4}$	$\frac{4!}{.4} - \frac{\sqrt{4}}{.4}$
55	$\Sigma(\Sigma(\sqrt{4 \times 4})) \times \frac{4}{4}$	$\frac{(4!!)!}{(\Gamma(4))!} - \frac{4}{4}$	$\frac{(\sqrt{4} + \sqrt{4})! + .4}{.4}$
$\sqrt{\Sigma(\operatorname{asin}(\Gamma(\sqrt{4}))) - \Sigma(\operatorname{atan}(\Gamma(\sqrt{4}))) - \Sigma(4!!) + \Gamma(\sqrt{4})}$			
56	$4! + 4! + 4 + 4$	$(4! + \sqrt{4} + \sqrt{4}) \times \sqrt{4}$	$\frac{\sqrt{4}}{4\%} + 4 + \sqrt{4}$
	$\sqrt{(\Sigma(4))!! - (\Gamma(4))! + (4 \times 4)}$	$\sqrt{(\Sigma(\Sigma(4)))^{\sqrt{4}} + \Sigma(\Sigma(\Gamma(4))) - \Gamma(\Gamma(4))}$	
57	$\frac{4! - \sqrt{4}}{.4} + \sqrt{4}$	$\frac{4!}{.4} - \sqrt{\frac{4}{.4}}$	$\frac{4!}{.4} + \sqrt{\frac{4}{.4}}$
	$\sqrt{\Sigma(\operatorname{asec}(\sqrt{4})) + \Sigma(\operatorname{atan}(\frac{4}{4})) + (4!!)!!}$		$4^{\Sigma(\sqrt{4})} + \Gamma(\sqrt{4}) - 4!!$
58	$4! + 4! + \frac{4}{.4}$	$((4! + 4) \times \sqrt{4}) + \sqrt{4}$	$\frac{(4!!)!!}{\Gamma(4)} - 4 - \sqrt{4}$
	$\frac{\operatorname{alog}(\sqrt{4}) + (4 \cdot 4)}{\sqrt{4}}$	$\frac{\sqrt{4}}{4\%} + 4 + 4$	$\sqrt{4} \times (\Sigma(\Gamma(4)) + 4 + 4)$
	$\sqrt{(\Sigma(4))!! - (4!!)!! - \operatorname{asin}(\Gamma(\sqrt{4})) - \sqrt{4}}$		$\Sigma\left(\frac{4}{.4}\right) + \frac{4!}{4!!}$
59	$\frac{4!}{.4} - \frac{4}{4}$	$\frac{4! - \sqrt{4}}{.4} + 4$	$\frac{(4!!)!!}{\Gamma(4)} - \frac{\sqrt{4}}{.4}$
	$\frac{4!}{.4} + \frac{\sqrt{4}}{.4}$	$\frac{\sqrt{4}}{4\%} + \frac{4}{.4}$	$\Sigma(4 + 4 + \sqrt{4}) + 4$
	$\sqrt{\Sigma(\operatorname{asin}(\Gamma(\sqrt{4}))) - (4!!)!! - \Sigma(\Sigma(\Gamma(4))) + \Gamma(\sqrt{4})}$		
60	$44 + (4 \times 4)$	$\frac{4!}{.4} + 4 - 4$	$(4! + 4 + \sqrt{4}) \times \sqrt{4}$
	$(4 \times 4 \times 4) - 4$	$((4! + 4) \times \sqrt{4}) + 4$	$\operatorname{alog}(\sqrt{4}) - 44 + 4$
	$\sqrt{4} \times \sqrt{4} \times \left(\frac{\sqrt{4}}{.4}\right)!!$	$(4!! + 4) \times \frac{\sqrt{4}}{.4}$	$\sqrt{\frac{4}{4\%} \times \frac{4!}{\sqrt{.4}}}$

SECTION I — SOLUTIONS 1–100

61	$\frac{4!}{.4} + \frac{4}{4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{\frac{4}{.4}}$	$C(4!! , 4) - \frac{4}{.4}$
	$\frac{(\sqrt{4} + \sqrt{4})! + .4}{.4}$	$\sqrt{\Sigma \left(\text{asin} \left(\Gamma(\sqrt{4}) \right) \right) - (4!!)!! + \frac{4}{.4}}$	
62	$\frac{4^4}{4} - \sqrt{4}$	$\frac{4! + .4 + .4}{.4}$	$C(4!! , 4) - 4 - 4$
	$\frac{\frac{4}{4\%} + 4!}{\sqrt{4}}$	$\frac{\Gamma(\Gamma(4))}{4} + 4! + 4!!$	$4! + 4! + \Sigma(4) + 4$
	$\sqrt{(4 + 4 + \sqrt{4})!! + 4}$	$\frac{4}{4\%} - (\Sigma(4!!)) - \sqrt{4}$	$\frac{\left(\frac{\sqrt{4}}{.4}\right)! + 4}{\sqrt{4}}$
63	$\frac{4! + \sqrt{4}}{.4} - \sqrt{4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}}} - \frac{4}{4}$	$\frac{4!}{.4} + \frac{4}{.4}$
	$\frac{4}{.4} \times (4!! - \Gamma(\sqrt{4}))$	$\frac{4^4 - 4}{4}$	$\Sigma(4 + \sqrt{4}) \times \frac{\Gamma(4)}{\sqrt{4}}$
	$\frac{4!}{.4} + \frac{\Gamma(4)}{\sqrt{4}}$	$\sqrt{\left(\Sigma(\Gamma(4))\right)^{\sqrt{4}}} \times \frac{4}{.4}$	$\frac{\left(\frac{\sqrt{4}}{.4}\right)! + \Gamma(4)}{\sqrt{4}}$
64	$(4 + 4)(4 + 4)$	$4! + 4! + (4 \times 4)$	$4 \times 4 \times \sqrt{4} \times \sqrt{4}$
	$(4 + \sqrt{4} + \sqrt{4})^{\sqrt{4}}$	$\frac{4^4}{\sqrt{4} + \sqrt{4}}$	$\frac{4}{4\%} - \Sigma(4 + 4)$
	$\frac{4!}{.4} + \sqrt{4} + \sqrt{4}$	$\frac{4!}{.4} + \frac{4}{.4}$	$\frac{4! + 4 + .4}{.4}$
	$\frac{\Gamma(\Gamma(4))}{4} + 4! + \Sigma(4)$	$\frac{\sqrt{4}}{4\%} + \Sigma(4) + 4$	$\frac{(4 + 4)!!}{4 + \sqrt{4}}$
	$\frac{\Sigma(\Sigma(4!!)) - 4! - \sqrt{4}}{\Sigma(4)}$	$.4 \times (a \log(\sqrt{4}) + 44)$	$\sqrt{\sqrt{4} \times \sqrt{4} \times (\sqrt{4})^{\Sigma(4)}}$
	$\left(4! \times \sqrt{\frac{4}{.4}}\right) - 4!!$	$\frac{4! \times 4!!}{\sqrt{\frac{4}{.4}}}$	$4 \times \left(\left(\sqrt{4^{\sqrt{4}}}\right)^{\sqrt{4}}\right)$

SECTION I — SOLUTIONS 1–100

65	$\frac{4! + 4 - \sqrt{4}}{.4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}} + \frac{4}{4}}$	$\frac{4!}{.4} + \frac{\sqrt{4}}{.4}$
	$\frac{4^4 + 4}{4}$	$\operatorname{atan}\left(\frac{4}{4}\right) + \frac{4!!}{.4}$	$\Sigma\left(\frac{4}{.4}\right) + \frac{4}{.4}$
	$\sqrt{\Sigma\left(\operatorname{asin}\left(\frac{4}{4}\right)\right) + \Gamma(\Gamma(4)) + \Sigma(4)}$		$\frac{\left(\frac{\sqrt{4}}{.4}\right)! + \Sigma(4)}{\sqrt{4}}$
66	$\frac{4^4}{4} + \sqrt{4}$	$\frac{4!}{.4} + 4 + \sqrt{4}$	$44 + 4! - \sqrt{4}$
	$\frac{\Sigma(\Sigma(4!!)) - 4 - \sqrt{4}}{\Sigma(4)}$	$a\log(\sqrt{4}) - 4! - \frac{4}{.4}$	$4! + 4! + \frac{4!!}{.4}$
	$\sqrt{4 \times \left(\Sigma\left(\operatorname{atan}\left(\Gamma(\sqrt{4})\right)\right) + \frac{4!}{.4}\right)}$		$\frac{4}{4\%} - (\Sigma(4!!)) + \sqrt{4}$
67	$\frac{4! + \sqrt{4}}{.4} + \sqrt{4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}} + \sqrt{\frac{4}{.4}}}$	$\operatorname{atan}\left(\frac{4}{4}\right) + 4! - \sqrt{4}$
	$\frac{4!}{.4} + 4!! - \Gamma(\sqrt{4})$	$\Sigma\left(4!! + \Sigma(\sqrt{4})\right) + \frac{4}{4}$	$C(4!!, 4) - \sqrt{\frac{4}{.4}}$
	$\sqrt{\Sigma\left(\operatorname{asin}\left(\Gamma(\sqrt{4})\right)\right) + (4!!)!! + \frac{4}{.4}}$		$\frac{\Sigma(4 \times 4) - \sqrt{4}}{\sqrt{4}}$
68	$4! + 4! + 4! - 4$	$\frac{4!}{.4} + 4 + 4$	$\frac{4! + 4!}{\sqrt{.4}} - 4$
	$(\sqrt{4} \times \sqrt[4]{4}) + 4$	$\frac{4}{4\%} - \sqrt[4]{4}$	$\sqrt{4} \times \left(\frac{4!}{\sqrt{.4}} - \sqrt{4}\right)$
	$\sqrt{4 \times \left(\Sigma\left((\Gamma(4))!!\right) - 4! + 4\right)}$		$\frac{\Sigma(4 \times 4)}{4 - \sqrt{4}}$
69	$\frac{4! + \sqrt{4}}{.4} + 4$	$\frac{4! + 4 - .4}{.4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}} + \frac{\sqrt{4}}{.4}}$
	$\sqrt{\Sigma\left(\operatorname{asin}\left(\frac{4}{4}\right)\right) + \Sigma(\Sigma(4 + 4))}$		$C(4!!, 4) - \frac{4}{4}$

SECTION I — SOLUTIONS 1–100

	$4! + 4! + 4! - \sqrt{4}$	$\frac{4! + \sqrt{4} + \sqrt{4}}{.4}$	$44 + 4! + \sqrt{4}$
70	$\frac{4}{4\%} - \sqrt{\frac{4}{.4\%}}$	$\frac{4}{.4} \times (4!! - \Gamma(\sqrt{4}))$	$\sqrt{\Gamma(4!!) - \Sigma(4 \cdot 4) - 4}$
	$\frac{4!}{.4} + \frac{4}{.4}$	$C(4!!, 4) \times \frac{4}{4}$	$\frac{\Sigma(4 \times 4) + 4}{\sqrt{4}}$
	$\frac{\sqrt{\frac{4}{.4}}}{4\%} - 4$	$\frac{4! + 4 + .4}{.4}$	$\frac{4! + 4! - \sqrt{.4}}{\sqrt{.4}}$
71	$\text{atan}\left(\frac{4}{4}\right) + 4! + \sqrt{4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}} + 4!! - \Gamma(\sqrt{4})}$	$\sqrt{\Gamma(4 + 4) + \frac{4}{4}}$
	$\sqrt{\Sigma(a \log(\sqrt{4})) - \frac{\sqrt{4}}{.4} - 4}$	$\frac{(4! \times \Gamma(4)) - \sqrt{4}}{\sqrt{4}}$	$\Sigma\left(\frac{4}{.4}\right) + (4 \times 4)$
	$4! \times \left(4 - \frac{4}{4}\right)$	$\frac{4! + 4 + 4}{.4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}} + 4 + 4}$
72	$(4 + 4) \times \left(\frac{4}{.4}\right)$	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} \div \sqrt{4}$	$\frac{4!^{\sqrt{4}}}{4 + 4}$
	$\frac{4!}{.4} + 4!! + 4$	$\frac{\left(\frac{4!}{4}\right)!}{4!! + \sqrt{4}}$	$\frac{P(\Gamma(4), 4)}{\left(\frac{\sqrt{4}}{.4}\right)}$
	$\frac{a \log(\sqrt{4}) + 44}{\sqrt{4}}$	$\frac{4}{4\%} - 4! - 4$	$\left(\frac{4!}{4}\right)! \div \frac{4}{.4}$
	$\sqrt{\Gamma(4!!) + (4! \times (4 + \sqrt{4}))}$		$\frac{\Sigma(4 \times 4) + 4!!}{\sqrt{4}}$
73	$\sqrt{\sqrt{\sqrt{4^{4!}}}} + \frac{4}{.4}$	$\frac{\sqrt{4}}{4\% \times \sqrt{.4}} - \sqrt{4}$	$\sqrt{\sqrt{\sqrt{4^{4!}}}} + 4!! + \Gamma(\sqrt{4})$
	$\frac{4! + 4! + \sqrt{.4}}{\sqrt{.4}}$	$\frac{(4! \times \Gamma(4)) + \sqrt{4}}{\sqrt{4}}$	$\frac{4! + 4!! + .4}{.4}$
	$\sqrt{\Gamma(4 + 4) + \Gamma(\sqrt{4}) + \sqrt{4}}$	$\sqrt{C(\Sigma(\Gamma(4)), 4) - \Sigma(\Sigma(4!!)) + \Sigma(4)}$	

SECTION I — SOLUTIONS 1–100

	$4! + 4! + 4! + \sqrt{4}$	$\frac{.4}{.4\%} - (4 \times 4)$	$\sqrt{\sqrt{4^{4!}}} + \frac{4}{.4}$
74	$\frac{4!}{.4} + \Gamma(4) + 4$	$\frac{alog(\sqrt{4}) + 4! + 4!}{\sqrt{4}}$	$44 + asin\left(\frac{\sqrt{4}}{4}\right)$
	$\sqrt{\Gamma(4!!) + (\sqrt{.4} \times \Sigma(\Sigma(4!!))) - 4!!}$		$C(4 + 4, 4) + 4$
	$\frac{4! + 4 + \sqrt{4}}{.4}$	$\frac{4 - \frac{4}{4}}{4\%}$	$atan\left(\frac{4}{4}\right) + asin\left(\frac{\sqrt{4}}{4}\right)$
75	$C(4!! , 4) + \frac{\sqrt{4}}{.4}$	$\Sigma\left(\frac{4}{.4}\right) + \frac{4!!}{.4}$	$\Sigma\left(acsc(\sqrt{4})\right) - (4!!)!! - \frac{4!}{4}$
	$\sqrt{\Sigma(alog(\sqrt{4})) + (4!)^{\sqrt{4}} - \Gamma(\sqrt{4})}$		$\sqrt{C(\Sigma(\Gamma(4)), 4) - P(\Gamma(4), 4)}$
	$4! + 4! + 4! + 4$	$\frac{4!}{.4} + (4 \times 4)$	$\frac{4! + 4!}{\sqrt{.4}} + 4$
76	$44 + 4! + 4!!$	$\sqrt{\frac{(4!!)!!}{(4!)^{\%}}} + \frac{4!}{\sqrt{.4}}$	$\frac{\frac{4!}{4\%} + 4!!}{4!!}$
	$\frac{\left(\frac{\Sigma(\sqrt{4})}{.4\%}\right) + \Sigma(4)}{\Sigma(4)}$	$\frac{\left(\frac{4}{.4\%}\right) + (\Gamma(4))!!!!}{(\Gamma(4))!!!!}$	$\frac{\left(\frac{\Sigma(4!)}{4\%}\right) + alog(\sqrt{4})}{alog(\sqrt{4})}$
	$\sqrt{\Sigma(alog(\sqrt{4})) + (\Gamma(4))! + 4 + \sqrt{4}}$		$\sqrt{4 \times (\Sigma(\Sigma(\Sigma(4)))) - (4 \times 4!)}$
77	$\left(\frac{4}{.4}\right)^{\sqrt{4}} - 4$	$(4!! - \Gamma(\sqrt{4})) \times (4!! + \Sigma(\sqrt{4}))$	$\frac{\sqrt{4}}{4\%} + \sqrt{4}$
	$\sqrt{\Sigma(asin\left(\frac{4}{4}\right)) + \Sigma(asec(\sqrt{4})) + 4}$		$atan\left(\Gamma(\sqrt{4})\right) + (4 \times (4 + 4))$
78	$(4! + \sqrt{4}) \times \sqrt{\frac{4}{.4}}$	$\frac{.4}{.4\%} - \frac{4!}{\sqrt{4}}$	$C(4!! , 4) + 4 + 4$
	$\sqrt{\frac{4!}{.4\%} + (4 \times \Sigma(\Gamma(4)))}$		$\sqrt{\Gamma(4!!) + \Sigma(atan(\Gamma(\sqrt{4}))) + \frac{4}{.4}}$

SECTION I — SOLUTIONS 1–100

79	$\left(\frac{4}{.4}\right)^{\sqrt{4}} - \sqrt{4}$	$\frac{\sqrt{\frac{4}{.4}}}{4\%} + 4$	$C(4!! , 4) + \frac{4}{.4}$
	$\sqrt{\Gamma(4!!) + \Sigma((\Gamma(4))!!) + \Sigma(\Gamma(4)) + 4}$	$\frac{4}{4\%} - \Sigma(4 + \sqrt{4})$	
80	$\frac{4}{.4} \times (4 + 4)$	$\frac{4 \times (4 + 4)}{.4}$	$\frac{.4}{.4\%} - \frac{4}{.4}$
	$((4 \times 4) + 4) \times 4$	$(44 - 4) \times \sqrt{4}$	$\frac{4}{4\%} - 4! + 4$
81	$\frac{4!}{.4} + 4! - 4$	$\sqrt{\frac{4}{4\%} \times \sqrt{\sqrt{4^{4!}}}}$	$\sqrt{\frac{4!}{.4\%} + \frac{4}{.4\%}}$
	$\frac{4}{.4} \times \frac{4}{.4}$	$\frac{(4!)^4}{\sqrt{\sqrt{4^{4!}}}}$	$\frac{.4}{.4\%} - \frac{4}{.4}$
82	$\left(4 - \frac{4}{4}\right)^4$	$\frac{4! + 4!! + .4}{.4}$	$(4 \times (4! - 4)) + \Gamma(\sqrt{4})$
	$\text{atan}\left(\frac{4}{4}\right) + \Sigma(4 + 4)$	$\sqrt{\left(\sqrt{\frac{4}{.4}}\right)^{(4+4)}}$	$\sqrt{C(\Sigma(\Gamma(4)), 4) + (4!)^{\sqrt{4}}}$
83	$\frac{4!}{.4} + 4! - \sqrt{4}$	$\frac{4!}{.4} + 4! + 4$	$\frac{.4}{.4\%} - 4 - 4$
	$\frac{\Sigma(4 + 4) + .4}{.4}$	$\sqrt{\Sigma(\Gamma(\Gamma(4))) - (4!!)^{\Sigma(\sqrt{4})} - 4!}$	
84	$\left(\frac{4}{.4}\right)^{\sqrt{4}} + \sqrt{4}$	$\frac{\sqrt{\frac{4}{.4}}}{4\%} + 4!!$	$\frac{(4!!)!}{(4!!)!!} - 4! + \sqrt{4}$
	$\Sigma\left(\frac{4}{.4}\right) + 4! + 4$	$\sqrt{\Sigma(\Gamma(\Gamma(4))) - (4!!)!! + \Sigma(4) + \Sigma(\sqrt{4})}$	
84	$(44 - \sqrt{4}) \times \sqrt{4}$	$(44 \times \sqrt{4}) - 4$	$\frac{4}{4\%} - (4 \times 4)$
	$(4! + 4) \times \sqrt{\frac{4}{.4}}$	$\frac{\Sigma(\Gamma(4)) \times (4 + 4)}{\sqrt{4}}$	$\sqrt{\Sigma(\Gamma(\Gamma(4))) - \frac{4!!}{4\%} - 4}$
	$\sqrt{\Sigma(alog(\sqrt{4})) + \frac{4!!}{.4\%} + \Gamma(4)}$	$\left(\frac{\sqrt{4}}{.4}\right)! - \Sigma(4 + 4)$	

SECTION I — SOLUTIONS 1–100

85	$\left(\frac{4}{\bar{4}}\right)^{\sqrt{4}} + 4$	$\frac{.4}{.4\%} - \frac{\sqrt{4}}{.4}$	$\text{atan}\left(\Gamma(\sqrt{4})\right) + 44 - 4$
	$\sqrt{\Sigma\left(\Gamma(4 + \sqrt{4})\right) - \Sigma(4!!) + \Gamma(\sqrt{4})}$		$\sqrt{\left(\Sigma(\sqrt{4})\right)^{4!!} + \Sigma(\Sigma(4!!)) - \sqrt{4}}$
86	$\frac{4!}{.4} + 4! + \sqrt{4}$	$(44 \times \sqrt{4}) - \sqrt{4}$	$(4! \times 4) - \frac{4}{.4}$
	$\sqrt{\Sigma\left(\Gamma(4 + \sqrt{4})\right) + \Sigma(4 \times 4)}$		$\frac{4}{4\%} - \Sigma(4) - 4$
87	$\frac{4! + 4}{.4} + 4!$	$\frac{.4}{.4\%} - \sqrt{\frac{4}{.4}}$	$\frac{(4!!)!}{(4!!)!!} - \frac{4!!}{.4}$
	$\text{atan}\left(\Gamma(\sqrt{4})\right) + 44 - \sqrt{4}$	$(44 \times \sqrt{4}) - \Gamma(\sqrt{4})$	$\Sigma\left(\frac{4}{.4}\right) + 4! + 4!!$
88	$44 + 44$	$44 \times \frac{4}{\sqrt{4}}$	$\frac{4!}{.4} + 4! + 4$
	$4 \times (4! - 4 + \sqrt{4})$	$\frac{4}{4\%} - \frac{4!}{\sqrt{4}}$	$\sqrt[.4]{\sqrt{\Sigma(4!!)}} - \sqrt[.4]{4}$
89	$\frac{4! + \sqrt{4}}{.4} + 4!$	$\frac{.4}{.4\%} - \frac{4}{4}$	$\text{atan}\left(\frac{4}{4}\right) + 44$
	$(44 \times \sqrt{4}) + \Gamma(\sqrt{4})$	$\frac{(4!!)!}{(4!!)!!} - (4 \times 4)$	$\frac{4}{4\%} + 4!! - \Sigma(\sqrt{4})$
90	$\sqrt{\Sigma\left(\Gamma(\Gamma(4))\right) + \Sigma(\Sigma(4!!)) - \frac{\sqrt{4}}{.4}}$		$\frac{4^4 + \text{alog}(\sqrt{4})}{4}$
	$(4! \times 4) - 4 - \sqrt{4}$	$(44 \times \sqrt{4}) + \sqrt{4}$	$\frac{4}{.4} \times \frac{4}{.4}$
91	$\frac{4}{4\%} - \frac{4}{.4}$	$\sqrt{\frac{4}{4\%} \times \left(\Sigma(\sqrt{4})\right)^4}$	$\sqrt{\frac{4}{.4\%}} \times \sqrt{\frac{4}{.4}}$
	$(4! \times 4) - \frac{\sqrt{4}}{.4}$	$\frac{4}{4\%} - \frac{4}{.4}$	$\frac{.4}{.4\%} + \frac{4}{4}$
91	$\Sigma\left(\frac{4}{.4}\right) + \Sigma(4 + 4)$	$\frac{\Sigma(4 + 4) + .4}{.4}$	$\frac{\Sigma(4!!) + 4 + .\bar{4}}{.4}$

SECTION I — SOLUTIONS 1–100

91 (cont)	$\sqrt{\Sigma \left(atan \left(-\Gamma(\sqrt{4}) \right) \right) - \frac{4}{.4\%} + \Gamma(\sqrt{4})}$	$\frac{(4!!)!! - \frac{4!!}{.4}}{4}$	
	$\sqrt{\Sigma \left(\Gamma(\Gamma(4)) \right) + \Sigma \left(atan \left(\Gamma(\sqrt{4}) \right) \right) - 4!! - \Gamma(4)}$	$(4!! \times \Sigma(4)) + 4!! + \Sigma(\sqrt{4})$	
92	$44 + 4! + 4!$	$(4! \times 4) - \sqrt{4} - \sqrt{4}$	
	$\sqrt{\Sigma \left(atan \left(-\frac{4}{4} \right) \right) - (\Gamma(4))! + 4}$	$\frac{4}{4\%} - 4 - 4$	
93	$(4! \times 4) - \sqrt{\frac{4}{.4}}$	$\frac{.4}{.4\%} + \sqrt{\frac{4}{.4}}$	
	$\sqrt{\Sigma \left(asin \left(\Gamma(\sqrt{4}) \right) \right) + (\Sigma(4))!! + (\Gamma(4))! - \Gamma(4)}$	$\Sigma(\Sigma(4)) + \Sigma(4 + 4) + \sqrt{4}$	
94	$(4! \times 4) - 4 + \sqrt{4}$	$\frac{4}{4\%} - 4 - \sqrt{4}$	
	$\left(\sqrt{4} \times atan \left(\frac{4}{4} \right) \right) + 4$	$\sqrt{\Sigma \left(atan \left(-\Gamma(\sqrt{4}) \right) \right) - (4!!)!! + \Sigma(4!!) + 4}$	
95	$(4! \times 4) - \frac{4}{4}$	$\frac{4}{4\%} - \frac{\sqrt{4}}{.4}$	$\frac{.4}{.4\%} + \frac{\sqrt{4}}{.4}$
	$\frac{(4!!)!}{(4!!)!!} - \frac{4}{.4}$	$(\Sigma(\Gamma(4)) - \sqrt{4}) \times \frac{\sqrt{4}}{4}$	$\Sigma(\Sigma(4)) + \Sigma(4 + 4) + 4$
	$\sqrt{\Sigma \left(atan \left(-\Gamma(\sqrt{4}) \right) \right) - atan \left(-\Gamma(\sqrt{4}) \right) - \frac{4!!}{.4}}$	$\frac{(4 + 4)!! - 4}{4}$	
96	$4! + 4! + 4! + 4!$	$4 \times 4 \times (4 + \sqrt{4})$	$\frac{.4}{.4\%} + 4 + \sqrt{4}$
	$\sqrt{\sqrt{\sqrt{4^{4!}}} + (4!! \times 4)}$	$(44 \times \sqrt{4}) + 4!!$	$\frac{4}{4\%} - \sqrt{4} - \sqrt{4}$
	$\sqrt{4} \times (44 + 4)$	$(\Sigma(4) \times 4!!) + (4 \times 4)$	$\Gamma(\sqrt{4} + \sqrt{4} + \sqrt{4}) - 4!$
	$\frac{\Sigma(\Sigma(4!!)) + \Gamma(4)}{4!! - \Gamma(\sqrt{4})}$	$\frac{(4!!)!}{(4!!)!!} - \frac{4}{.4}$	$\frac{\frac{4!!}{4\%} - 4!!}{\sqrt{4}}$

SECTION I — SOLUTIONS 1–100

	$\Sigma(\Sigma(4)) + 44 - \Sigma(\sqrt{4})$	$\sqrt{.4} \times (alog(\sqrt{4}) + 44)$	$\frac{(\Gamma(4))! + (\Gamma(4))!!}{4 + 4}$
	$\sqrt{\frac{.4}{.4\%}} + (\Gamma(4))^{\Sigma(\sqrt{4})}$	$\sqrt{\Sigma(atan(-\frac{4}{4})) + \Sigma(4 + 4)}$	
96 (cont)	$\sqrt{(\Sigma(\Gamma(4)))^{\Sigma(\sqrt{4})} - \Sigma(\frac{4}{.4})}$	$\sqrt{alog(4) - (\Gamma(4))! - \frac{(4!!)!!}{\Gamma(4)}}$	
	$\sqrt{4 \times ((4 + \sqrt{4})!!)^{\sqrt{4}}}$	$\sqrt{\sqrt{4} \times ((\Sigma(4))!! + (\sqrt{4} \times (4!!)!!))}$	
	$\sqrt{4!! \times ((\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))) - \Sigma(\sqrt{4}))}$	$\frac{4 \times (\Sigma(4) - .4)}{.4}$	
97	$(4! \times 4) + \frac{4}{4}$	$\frac{4}{4\%} - \sqrt{\frac{4}{.4}}$	$\frac{\sqrt{\sqrt{4^{4!}}} + \sqrt{.4}}{\sqrt{.4}}$
	$\sqrt{\Sigma(atan(-\frac{4}{4})) + \Sigma(\Sigma(\Gamma(4))) - \sqrt{4}}$	$\frac{(4!!)!}{(4!!)!!} - 4 - 4$	
	$\sqrt{(\Sigma(\Gamma(4)))^{\Sigma(\sqrt{4})} + alog(\sqrt{4}) + (\Gamma(4))!!}$	$\Sigma(\Sigma(4)) + 44 - \sqrt{4}$	
98	$(4! \times 4) + 4 - \sqrt{4}$	$\frac{44 - \bar{4}}{.4}$	$\frac{.4}{.4\%} + 4 + 4$
	$\frac{\frac{4!!}{4\%} - 4}{\sqrt{4}}$	$\frac{4}{4\%} - 4 + \sqrt{4}$	$\left(\frac{\sqrt{4}}{.4}\right)! - 4! + \sqrt{4}$
	$\sqrt{\Sigma(atan(-\Gamma(\sqrt{4}))) + (4!!)!! + \Sigma(4!!) + 4}$	$\sqrt{alog(4) - (4!!)!! - \frac{4!}{\sqrt{4}}}$	
99	$(4! \times 4) + \sqrt{\frac{4}{.4}}$	$\frac{4}{4\%} - \frac{4}{4}$	$\frac{.4}{.4\%} + \frac{4}{.4}$
	$(4! \times \Gamma(4)) - atan\left(\frac{4}{4}\right)$	$\frac{\Sigma(44) \times .4}{4}$	$\frac{(4!!)!}{(4!!)!!} - 4 - \sqrt{4}$
	$\sqrt{alog(4) - \frac{4!!}{4\%} + \Gamma(\sqrt{4})}$	$\sqrt{\Gamma(4!!) + \Sigma(asin(\frac{4}{4})) + \Sigma(\Sigma(4!!))}$	

SECTION I — SOLUTIONS 1–100

100

$(4! \times 4) + \sqrt{4} + \sqrt{4}$	$\frac{4}{.4} \times \frac{4}{.4}$	$4 \times \left(4! + \frac{4}{4}\right)$
$(4! - 4) \times \frac{\sqrt{4}}{.4}$	$\frac{44 \cdot \bar{4}}{.4}$	$\frac{4!!}{4\%} - \frac{4}{4\%}$
$\left(\sqrt{4} \times \text{atan}\left(\frac{4}{4}\right)\right) + \Sigma(4)$	$\frac{(4!!)!}{(4!!)!!} - \frac{\sqrt{4}}{.4}$	$\left(\frac{\sqrt{4}}{.4}\right)! - 4! + 4$
$\sqrt{a \log\left(\frac{4 \times 4}{\sqrt{4} \times \sqrt{4}}\right)}$	$\sqrt{\frac{.4}{.4\% \%} + \frac{4}{.4\%}}$	$(\Sigma(\sqrt{4}) \times \sqrt[4]{4}) + 4$
	$\sqrt{\Sigma(a \log(\sqrt{4})) + \Gamma(4!!) - \frac{.4}{.4\%}}$	$\left(\Sigma(\sqrt{4}) \times \frac{4!}{\sqrt{.4}}\right) - 4!!$

Solutions History 1–100 & Introduction

<i>n</i>	1993	1998	2012	2021
1	3	3	10	10
2	3	3	9	9
3	3	3	6	6
4	3	3	21	26
5	3	3	7	9
6	3	3	8	14
7	3	3	6	6
8	3	3	10	12
9	3	3	6	6
10	3	3	7	11
11	3	3	6	9
12	3	3	8	8
13	6	6	9	9
14	3	3	6	6
15	5	5	7	9
16	3	5	13	18
17	6	6	7	9
18	5	5	6	12
19	5	5	8	8
20	3	3	7	9
21	4	4	8	9
22	3	3	8	9
23	3	3	8	8
24	4	4	17	17
25	5	5	10	15
26	3	5	7	9
27	3	3	5	9
28	3	5	7	9
29	3	3	4	5
30	3	5	6	6
31	3	3	5	6
32	3	3	11	12
33	4	4	7	8
34	3	3	7	8
35	4	4	7	8
36	3	3	17	17
37	4	4	6	6
38	3	3	5	5
39	3	3	5	6
40	3	3	7	9

<i>n</i>	1993	1998	2012	2021
41	3	3	5	6
42	3	3	6	6
43	3	3	5	5
44	3	3	8	9
45	3	3	7	9
46	3	3	7	9
47	3	3	5	5
48	3	3	8	8
49	3	3	7	9
50	5	5	8	9
51	3	3	5	5
52	3	3	4	5
53	3	3	5	5
54	3	3	4	5
55	3	3	7	7
56	3	3	5	5
57	3	3	4	5
58	4	4	7	8
59	4	4	7	7
60	5	5	9	9
61	3	3	5	5
62	3	3	4	9
63	3	3	8	9
64	4	4	15	18
65	3	3	7	8
66	3	3	7	8
67	3	3	7	8
68	3	3	7	8
69	3	3	5	5
70	4	4	8	9
71	6	6	9	9
72	6	6	10	14
73	4	4	8	8
74	3	3	5	8
75	3	3	8	8
76	3	3	5	11
77	3	3	5	5
78	3	3	5	5
79	3	3	4	5
80	4	4	9	9

<i>n</i>	1993	1998	2012	2021
81	4	4	9	9
82	3	3	5	5
83	3	3	5	5
84	4	4	7	8
85	3	3	5	5
86	3	3	4	5
87	4	4	8	8
88	3	3	6	6
89	4	4	7	8
90	4	4	6	6
91	3	3	8	10
92	3	3	6	7
93	3	3	5	5
94	4	4	5	5
95	3	3	7	8
96	3	4	23	23
97	3	3	7	7
98	4	4	8	8
99	4	4	8	8
100	5	5	14	14
<i>Σ</i>	345	354	741	852

*Introduction – Partial Solutions**

#4s	1993	1998	2012	2021
One	28	28	61	132
Two	77	77	369	593
<i>Σ</i>	105	105	430	725

* Does not include other solutions contained in *Miscellaneous Operations and Functions*, which I introduced in Version 3.30 (2012).

For Version 4.00, I originally planned to add little or nothing to Section I. But, the empty table cells tempted me as did the chance to improve formatting by mostly eliminating the need to split solutions for a particular number across pages. It took me only about two hours to create and add the 111 new solutions. That's the benefit of cutting and pasting from the *Partial Solutions*. I thought about adding even more to get up to at least 8 solutions for every number, but it was bedtime.

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SECTION II — SOLUTIONS 101–200

101	$\frac{4}{4\%} + \frac{4}{4}$	$(4! \times 4) + \frac{\sqrt{4}}{.4}$	$\sqrt{alog(4) + \frac{4!!}{4\%} + \Gamma(\sqrt{4})}$
	$\frac{\Sigma(4!!) + 4 + .4}{.4}$	$\frac{\sqrt{.4}}{.4\%} - atan(\Gamma(\sqrt{4})) - 4$	$\frac{\frac{4!!}{4\%} + \sqrt{4}}{\sqrt{4}}$
	$\Sigma(4 + \sqrt{4}) + (\Sigma(4) \times 4!!)$		$(\Sigma(\sqrt{4}) \times (4! + \Sigma(4))) - \Gamma(\sqrt{4})$
	$(\Sigma(\sqrt{4}))^4 + \frac{4!!}{.4}$	$\left(\frac{\Gamma(\sqrt{4})}{4\%}\right) \times (4 + 4\%)$	$\frac{\Sigma(alog(\sqrt{4}))}{4! + 4! + \sqrt{4}}$
102	$\frac{4}{4\%} + \frac{4}{\sqrt{4}}$	$(4! \times 4) + 4 + \sqrt{4}$	$\frac{(4!!)!}{(4!!)!!} - \sqrt{\frac{4}{.4}}$
	$(\sqrt{!4} \times \Sigma(4!!)) - 4 - \sqrt{4}$	$\Gamma(\Gamma(4)) - 4!! - 4!! - \sqrt{4}$	$\frac{\Sigma(\Sigma(4!!))}{4 + \sqrt{4}} - !4$
	$\sqrt{alog(4) + (4!!)!! + \frac{4!!}{.4}}$	$\Gamma(\Gamma(4)) - 4^{\sqrt{4}} - \sqrt{4}$	$(4! + \Sigma(4)) \times \sqrt{\frac{4}{.4}}$
103	$\frac{4}{4\%} + \frac{4!}{4!!}$	$\frac{(4!!)!}{(4!!)!!} - \frac{4}{\sqrt{4}}$	$alog(\sqrt{4}) + 4 - \frac{4}{4}$
	$\frac{\Sigma(\Sigma(4!!))}{4 + \sqrt{4}} - 4!!$	$\frac{(4!!)!! + 4! + 4}{4}$	$\frac{(4!)!!!!!! + \frac{4!!}{.4}}{acsc(\sqrt{4})}$
	$\sqrt{alog(4) + \Sigma(\Sigma(4!!)) - \Sigma(\Sigma(4)) - \sqrt{4}}$		$\frac{(\Gamma(4))! + \Gamma(\sqrt{4})}{4!! - \Gamma(\sqrt{4})}$
104	$\frac{4}{4\%} + \sqrt{4 \times 4}$	$(4! \times 4) + 4 + 4$	$\frac{(4!!)!}{(4!!)!!} - \frac{4}{4}$
	$\sqrt{alog(4) + (\Gamma(4))! + (4! \times 4)}$		$\frac{\frac{\Gamma(4!!)}{\Gamma(4)} - 4!!}{4!!}$
105	$\frac{4}{4\%} + \frac{\sqrt{4}}{.4}$	$(4! \times 4) + \frac{4}{.4}$	$\frac{(4 + 4)!}{(4 + 4)!!}$
	$\sqrt{alog(4) + (\sqrt{4})^{\Sigma(4)} + \Gamma(\sqrt{4})}$		$atan\left(-\frac{4}{4}\right) - asin\left(\frac{\sqrt{4}}{4}\right)$
	$\sqrt{\Sigma(\Gamma(\Gamma(4))) + \Sigma(asin(\Gamma(\sqrt{4}))) - (\Sigma(\Sigma(4)) \times \Gamma(4))}$		$\left(4 + 4 - \frac{4}{4}\right)!!$

SECTION II — SOLUTIONS 101–200

	$\frac{4}{4\%} + \frac{4!}{4}$	$(4! \times 4) + \frac{4}{.4}$	$\frac{44}{.4} - 4$
106	$\sqrt{alog(4) + \Sigma((\Gamma(4))!!) + \frac{4!}{.4}}$		$\frac{(4!!)!}{(4!!)!!} + \frac{4}{4}$
	$\frac{4}{4\%} + 4!! - \Gamma(\sqrt{4})$	$\frac{4! + 4! - .4}{.4}$	$\frac{(4!!)!}{(4!!)!!} + 4 - \sqrt{4}$
107	$\frac{\Sigma(\Sigma(4!!)) - 4!}{4 + \sqrt{4}}$	$\frac{(\Gamma(4))!!}{.4} - \frac{4}{4}$	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} - \Sigma(4 + \sqrt{4})$
	$atan(\Gamma(\sqrt{4})) + \frac{(4!!)!!}{\Gamma(4)} - \sqrt{4}$		$\frac{4}{4\%} + 4!! - \Gamma(\sqrt{4})$
		$\sqrt{\Sigma(\Gamma(\Gamma(4))) + \Sigma(asin(\Gamma(\sqrt{4}))) + asin(\Gamma(\sqrt{4})) + 4}$	
	$\frac{4}{4\%} + 4 + 4$	$\frac{44}{.4} - \sqrt{4}$	$\frac{4!}{\sqrt{4}} \times \frac{4}{.4}$
108	$\frac{(4!!)!}{(4!!)!!} + \sqrt{\frac{4}{.4}}$	$\left(\frac{\sqrt{4}}{4\%} + 4\right) \times \sqrt{4}$	$44 + \frac{(4!!)!!}{\Gamma(4)}$
		$\sqrt{alog(4) + \Sigma(\Sigma(4))} + alog(\sqrt{4}) + 4!$	$\frac{\left(\frac{(4!!)!!}{.4}\right)}{(4 + 4)!!}$
	$\frac{4}{4\%} + \frac{4}{.4}$	$\frac{44 - .4}{.4}$	$\frac{4! + 4! + .4}{.4}$
109	$atan\left(\frac{4}{4}\right) + \frac{(4!!)!!}{\Gamma(4)}$	$\sqrt{P\left(\frac{4!}{\sqrt{4}}, 4\right) + \Gamma(\sqrt{4})}$	$\frac{(4!!)!!}{.4} + 4!!$
	$\frac{4}{4\%} + \frac{4}{.4}$	$\frac{(4!!)!}{(4!!)!!} + \frac{\sqrt{4}}{.4}$	$(4!! + \Sigma(\sqrt{4})) \times \frac{4}{.4}$
	$\left(4! \times \frac{\sqrt{4}}{.4}\right) - \Sigma(4)$	$\frac{4}{\sqrt{4}} \times \Sigma\left(\frac{4}{.4}\right)$	$\left(\frac{\sqrt{4}}{.4}\right)! - \frac{4}{.4}$
110	$\sqrt{\left(\Gamma(\Gamma(4)) + \frac{4}{4}\right) \times alog(\sqrt{4})}$		$\sqrt{\sqrt{4} \times \left(\Sigma(alog(\sqrt{4})) + \frac{4}{.4\%}\right)}$
	$\sqrt{4 \times \left(\Sigma\left(\frac{4}{.4}\right)\right)^{\sqrt{4}}}$		$\sqrt{4 \times \left(\left(atan(\Gamma(\sqrt{4}))\right)^{\sqrt{4}} + alog(\Sigma(\sqrt{4}))\right)}$

SECTION II — SOLUTIONS 101–200

111	$\frac{4}{4\%} + 4!! + \Sigma(\sqrt{4})$	$\frac{444}{4}$	$\frac{44.4}{.4}$
	$\frac{(4!!)!}{(4!!)!!} + 4 + \sqrt{4}$	$\frac{\Gamma(4!!)}{\operatorname{atan}(\Gamma(\sqrt{4}))} - \frac{4}{4}$	$\frac{(4!!)!!}{.4} + 4!$ $\frac{4!!}{4!!}$
	$\sqrt{\Sigma(\sqrt{4}) \times \left(\Sigma \left(\operatorname{asin}(\Gamma(\sqrt{4})) \right) + \frac{4!}{\sqrt{4}} \right)}$		$\frac{(\Sigma(\Sigma(4)) \times \Gamma(4)) + \Gamma(\sqrt{4})}{\Gamma(\sqrt{4})}$
112	$\frac{4}{4\%} + \frac{4!}{\sqrt{4}}$	$\frac{44}{.4} + \sqrt{4}$	$\left(\frac{\sqrt{4}}{.4}\right)! - 4 - 4$
	$4 \times (4! + \sqrt{4}^{\sqrt{4}})$	$(\Sigma(4) \times 4!!) + 4! + 4!!$	$\sqrt{(4!)!!!!!! + \Sigma(4!) + \sqrt{4}^{\sqrt{4}}}$
	$(4! \times 4) + (4 \times 4)$	$4!! \times \left(4! - \frac{4}{.4} \right)$	$\frac{(4!!)!}{4!! \times \operatorname{atan}(\Gamma(\sqrt{4}))}$
113	$\frac{4}{4\%} + \Sigma(4) + \Sigma(\sqrt{4})$	$\Gamma(\Gamma(4)) - 4 - \sqrt{\frac{4}{.4}}$	$\frac{\Gamma(4!!)}{\operatorname{atan}(\Gamma(\sqrt{4}))} + \frac{4}{4}$
	$\frac{(4!!)!}{(4!!)!!} + 4 + 4$	$(4 \times C(4!!, \sqrt{4})) + \Gamma(\sqrt{4})$	$\frac{\Sigma(\Sigma(4!!)) + 4!! + 4}{\Gamma(4)}$
	$\left(\sqrt{4} \times \frac{(4!!)!}{(\Gamma(4))!} \right) + \Gamma(\sqrt{4})$	$\sqrt{\sqrt{\sqrt{4^{4!}}}} + \operatorname{atan}(\Gamma(\sqrt{4})) + 4$	
114	$\frac{4}{4\%} + \Sigma(4) + 4$	$\frac{44}{.4} + 4$	$\left(\frac{\sqrt{4}}{.4}\right)! - 4 - \sqrt{4}$
	$\sqrt{\frac{\Gamma(4!!)}{.4} + (4!!)!! + (\Gamma(4))!!!!}$		$\sqrt{(4 \times \Gamma(4))!!!!!! + (\Sigma(4 + \sqrt{4}))!!!!!!}$
	$(4!! \times (4! - \Sigma(4))) + \sqrt{4}$	$C(4!!, 4) + 44$	$\frac{\Sigma(\Sigma(4!!)) + !4 + !4}{\Gamma(4)}$
115	$\frac{4}{4\%} + \left(\frac{\sqrt{4}}{.4}\right)!!$	$\left(\frac{\sqrt{4}}{.4}\right)! - \frac{\sqrt{4}}{.4}$	$\frac{(4!!)!}{(4!!)!!} + \frac{4}{.4}$
	$\frac{\Sigma(\Sigma(4!!)) + 4!}{4 + \sqrt{4}}$	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} - (!4 + 4)$	$\frac{.4}{.4\%} + \frac{alog(\sqrt{4})}{4}$
	$\sqrt{\Sigma \left(\operatorname{atan}(-\Gamma(\sqrt{4})) \right) + \Sigma \left(\operatorname{asin}(\Gamma(\sqrt{4})) \right) - \frac{\sqrt{4}}{4\%}}$		$\frac{(4 \times \Sigma(\Sigma(\Gamma(4)))) - 4}{4!!}$

SECTION II — SOLUTIONS 101–200

116	$\frac{4}{4\%} + 4^{\sqrt{4}}$	$(4! \times 4) + 4! - 4$	$\frac{4^4 - 4!}{\sqrt{4}}$
	$4 \times \left(4! + \frac{\sqrt{4}}{.4} \right)$	$\Sigma(4 \times 4) - \frac{4!!}{.4}$	$\frac{\Sigma(acsc(\sqrt{4})) - 4}{4}$
	$(4!!)!! - !(\Gamma(4)) - \frac{4!}{4!!}$	$\left(\frac{\sqrt{4}}{.4}\right)! - \frac{4!!}{\sqrt{4}}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - (4 \times \Sigma(\Sigma(4)))$
	$\sqrt{\frac{\Sigma(\Sigma(\Gamma(4)))}{\sqrt{4}}} + (\Gamma(4))!! + \Sigma(4)$		$\left(\Sigma(\Sigma(\Sigma(4))) - \frac{.4}{.4\%}\right) \times (4!!)\%$
117	$\frac{4}{4\%} + \Sigma(\Gamma(4)) - 4$	$\sqrt{!(4!!) - \Sigma((\Gamma(4))!!) - (4!! \times 4)}$	
	$\frac{(4!!)!}{(4!!)!!} + \frac{4!}{\sqrt{4}}$	$\left(\frac{\sqrt{4}}{.4}\right)! - \sqrt{\frac{4}{.4}}$	$\frac{4! + \sqrt{4}}{.4} \times \sqrt{4}$
118	$\frac{4}{4\%} + \frac{4!!}{.4}$	$\left(\frac{\sqrt{4}}{.4}\right)! - \frac{4}{\sqrt{4}}$	$\frac{(4! \times \Sigma(4)) - 4}{\sqrt{4}}$
	$(4! \times 4) + 4! - \sqrt{4}$	$\frac{(\Gamma(4))!! + 4 + .\bar{4}}{.4}$	$\frac{(4 \times \Gamma(\Gamma(4))) - 4!!}{4}$
	$\sqrt{alog(4) + (\Sigma(4))!! + asec(\sqrt{4}) + 4!}$		$\sqrt{(4!)!!!!!! + \Sigma(\Sigma(\Sigma(4))) + (4! \times \Gamma(4))}$
119	$\sqrt{\frac{4}{4\%} + \Sigma(\Gamma(4)) - \sqrt{4}}$	$\left(\frac{\sqrt{4}}{.4}\right)! - \frac{4}{4}$	
	$\frac{(4!!)!}{(4!!)!!} + \Sigma(4) + 4$	$\frac{(4 \times \Gamma(\Gamma(4))) - 4}{4}$	$\sqrt{!(4!!) - \frac{\Sigma(\sqrt{4})}{.4\%} + \sqrt{!4}}$
	$\frac{4}{4\%} + \frac{4!!}{.4}$	$4 \times (4! + 4 + \sqrt{4})$	
120	$(4 + \sqrt{4}) \times (4! - 4)$	$\frac{4! - \sqrt{.4}}{.4}$	$\sqrt{\frac{4}{4\%} \times 4! \times \Gamma(4)}$
	$\sqrt{alog(4) + \frac{4!}{.4\%} - alog(\Sigma(\sqrt{4}))}$		$\sqrt{!(4!!) - \Sigma(acsc(\sqrt{4})) + \sqrt[4]{4}}$

SECTION II — SOLUTIONS 101–200

121	$\frac{4}{4\%} + \Sigma(4 + \sqrt{4})$	$\left(\frac{\sqrt{4}}{.4}\right)! + \frac{4}{4}$	$\frac{4! + 4! + .4}{.4}$
	$\left(\Sigma(4) + \frac{4}{4}\right)^{\sqrt{4}}$	$\frac{4}{4\%} + \Sigma(4 + \sqrt{4})$	$\frac{(4!!)!}{(4!!)!!} + (4 \times 4)$
	$\sqrt{\sqrt{\left(\frac{\sqrt{4}}{.4}\right)^{4!}} - 4}$	$\frac{(4! - \sqrt{4})^{\sqrt{4}}}{4}$	$\frac{\sqrt{.4}}{.4\%} - \Sigma(\Gamma(4)) - 4!!$
122	$\frac{4}{4\%} + 4! - \sqrt{4}$	$(4! \times 4) + 4! + \sqrt{4}$	$\frac{4}{4\%} + 4! - \sqrt{4}$
	$\sqrt{\sqrt{\left(\frac{\sqrt{4}}{.4}\right)^{4!}} - \Sigma(\sqrt{4})}$	$\left(\frac{\sqrt{4}}{.4}\right)! + \frac{4}{\sqrt{4}}$	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} - 4 - \sqrt{4}$
123	$\frac{4}{4\%} + \Sigma(\Gamma(4)) + \sqrt{4}$	$\frac{44}{.4} + 4!$	$\frac{(4!!)!}{(4!!)!!} + \frac{4!!}{.4}$
	$\sqrt{\sqrt{\left(\frac{\sqrt{4}}{.4}\right)^{4!}} - \sqrt{4}}$	$\left(\frac{\sqrt{4}}{.4}\right)! + \sqrt{\frac{4}{.4}}$	$\frac{4!}{.4} + \sqrt{.4}$
124	$\frac{4}{4\%} + (\sqrt{4} + \sqrt{4})!$	$\frac{4^4}{\sqrt{4}} - 4$	$\frac{(\Sigma(4) \times (\Sigma(4))!!!!) - 4}{4}$
	$\frac{\sqrt{4}}{.4\%} - 4$	$\sqrt{\sqrt{\sqrt{4^{4!}}} + \frac{4!}{.4}}$	$\sqrt{4} \times \left(\frac{(4!!)!!}{\Gamma(4)} - \sqrt{4}\right)$
	$(\Sigma(4) \times 4!!) + 44$	$(4! \times 4) + 4! + 4$	$\left(\frac{4}{\sqrt{4}}\right) \times (a\sec(\sqrt{4}) + \sqrt{4})$
125	$\sqrt{(\Sigma(\sqrt{4}) \times \Gamma(4!!)) + 4^4}$	$\sqrt{(.4 \times (4!!)!) - (\Sigma(\Gamma(4)))!!!!!! + 4}$	
	$\frac{4}{4\%} + \frac{\Gamma(\sqrt{4})}{4\%}$	$\sqrt{\sqrt{\sqrt{\left(4 + \frac{4}{4}\right)^{4!}}}}$	$\sqrt{\left(\frac{\sqrt{4}}{.4}\right)^{(4+\sqrt{4})}}$
	$\left(\frac{\sqrt{4}}{.4}\right)! + \frac{\sqrt{4}}{.4}$	$C(4!! , 4) + \Sigma\left(\frac{4}{.4}\right)$	$\frac{(4! \times \Sigma(4)) + \Sigma(4)}{\sqrt{4}}$

SECTION II — SOLUTIONS 101–200

126	$\frac{4}{4\%} + 4! + \sqrt{4}$	$\frac{4}{4\%} + 4! + \sqrt{4}$	$\frac{4^4 - 4}{\sqrt{4}}$
	$(\sqrt{4} \times 4^{\Sigma(\sqrt{4})}) - \sqrt{4}$	$\sqrt{(4! \times \Sigma(\Sigma(4!!)))} - \frac{(\Gamma(4))!!}{\sqrt{4}}$	$\frac{\sqrt{4}}{4\%} - (4 \times \Gamma(4))$
127	$\frac{4}{4\%} + (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$	$\frac{\frac{\sqrt{4}}{4\%} + 4!!}{4}$	$\frac{4^4 - \sqrt{4}}{\sqrt{4}}$
	$\frac{(\Gamma(4))!! + 4!! + \sqrt{4}}{\sqrt{4}}$	$\Sigma(4 \times 4) - \frac{4}{\sqrt{4}}$	$\sqrt{!(4+4) + (\Gamma(4))^4}$
128	$\frac{4}{4\%} + 4! + 4$	$(4! + 4 + 4) \times 4$	$\frac{4^4 \times \sqrt{4}}{4}$
	$\sqrt{\sqrt{(\sqrt{4})^{(4!+4!+4!!)}}}$	$\sqrt{(.4 \times (4!!)!) + 4^4}$	$\frac{\Sigma((\Gamma(4))!!) - 4!}{!4}$
129	$\frac{4}{4\%} + \Sigma(\Gamma(4)) + 4!!$	$\left(\frac{\sqrt{4}}{4}\right)! + \frac{4}{\sqrt{4}}$	$\frac{4^4 + \sqrt{4}}{\sqrt{4}}$
	$(44 - \Gamma(\sqrt{4})) \times \Sigma(\sqrt{4})$	$\frac{4!}{4!!} \times (\text{atan}(\Gamma(\sqrt{4})) - \sqrt{4})$	$\frac{\Sigma((\Gamma(4))!!) - \Sigma(\frac{\sqrt{4}}{4})}{!4}$
130	$\frac{4}{4\%} + \text{asin}\left(\frac{\sqrt{4}}{4}\right)$	$\left(\frac{\sqrt{4}}{4}\right)! + \frac{4}{\sqrt{4}}$	$\Gamma(\Gamma(4)) + 4 + 4 + \sqrt{4}$
	$\frac{4^4 + 4}{\sqrt{4}}$	$\frac{\frac{4!!}{(\sqrt{4})\%} - \Sigma(4)}{\Sigma(\sqrt{4})}$	$\frac{(4!!)^{\Sigma(\sqrt{4})} + 4!!}{4}$
	$\frac{(4!!)!}{(4!!)!!} + \frac{\text{alog}(\sqrt{4})}{4}$	$\frac{4^4 + 4}{\sqrt{4}}$	$\sqrt{\frac{\Sigma(\Sigma(4!!))}{4\%} + (\Sigma(4))!!!} - \text{acsc}(\sqrt{4})$
131	$\frac{4}{4\%} + \Sigma(\Gamma(4)) + \Sigma(4)$	$\frac{(4!!)!}{(4!!)!!} + 4! + \sqrt{4}$	$\Sigma(\Sigma(4 + \sqrt{4})) - \frac{4}{4\%}$
	$\frac{4^4 + \Gamma(4)}{\sqrt{4}}$	$\frac{\Sigma(4!) + \frac{4}{\sqrt{4}}}{\Sigma(\sqrt{4})}$	$\frac{\sqrt{4}}{4\%} + 4!$
	$\frac{(\Gamma(4))!! + 4 + .4}{.4}$	$\frac{\Gamma(\sqrt{4})}{.4\% \times \sqrt{4}} + \Gamma(4)$	$(4 + 4)!! - \Sigma(4! - \sqrt{4})$

SECTION II — SOLUTIONS 101–200

132	$\frac{4}{4\%} + 4! + 4!!$	$\frac{4}{4\%} + 4! + 4!!$	$4! \times \left(\Gamma(4) - \frac{\sqrt{4}}{4} \right)$
	$4 \times \left(4! + \frac{4}{.4} \right)$	$\frac{4^4}{\sqrt{4}} + 4$	$\frac{\Sigma(\Sigma(4)) \times (\Gamma(4))!!}{4! - 4}$
	$\sqrt{(\Sigma(\Gamma(4)))!!!! + (\Sigma(4))!!! + 4!! - \Gamma(4!!)}$	$\frac{\Gamma(\Gamma(4))}{.4} - (\Sigma(\Gamma(4)) \times 4!!)$	
	$\frac{\Gamma(\Gamma(4))}{.4} - \Gamma(4)$	$\frac{4!!}{(\sqrt{4})\%} - 4$	$\frac{\Sigma(\Gamma(4))}{4\%} + \Sigma(\sqrt{4})$
	$\frac{4}{4\%} + \Sigma(4!!) - \Sigma(\sqrt{4})$	$\frac{\Gamma(\sqrt{4})}{.4\% \times \sqrt{4}} + 4!!$	$\frac{(4 \times alog(\sqrt{4})) - \Gamma(\sqrt{4})}{\Sigma(\sqrt{4})}$
133	$\frac{(4!!)!}{(4!!)!!} + 4! + 4$	$\frac{C(\Sigma(\Gamma(4)), \Sigma(\sqrt{4}))}{4!! + \sqrt{4}}$	$\frac{(4 \times \Sigma(\Sigma(4!!))) - 4}{(\Sigma(4))!!!!!!}$
	$\frac{4}{4\%} + 4! + \Sigma(4)$	$\frac{44}{.4} + 4!$	$\frac{\sqrt{.4}}{.4\%} - (4 \times 4)$
134	$\frac{C(4!, \sqrt{4}) - 4!!}{\sqrt{4}}$	$\frac{(\sqrt{.4\%} \times (4!!)!) - 4!!}{(\Sigma(4))!!!!!!}$	$\sqrt{(.4 \times (4!!)!) + (\Gamma(4))^{\sqrt{4}}}$
	$\frac{4}{4\%} + \Sigma(4!!) - \Gamma(\sqrt{4})$	$\frac{\sqrt{4}}{4\%} + .4$	$\frac{4}{4} \times atan\left(-\frac{4}{4}\right)$
135	$\frac{(4!!)!}{(4!!)!!} + asin\left(\frac{\sqrt{4}}{4}\right)$	$\frac{\frac{4!}{4\%} - asec(\sqrt{4})}{4}$	$\frac{\Sigma(\sqrt{4}) \times atan(-\Gamma(\sqrt{4}))}{\left(\frac{4!}{4!!}\right)}$
	$\frac{4}{4\%} + \frac{4!}{\sqrt{.4}}$	$\Sigma(4 + 4 + 4 + 4)$	$\left(\frac{\sqrt{4}}{4}\right)! + (4 \times 4)$
136	$4 \times \left(4! + \frac{4}{.4} \right)$	$(4! + (4 + \sqrt{4})) + 4!$	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} + 4 + 4$
	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} - 4!!$	$\frac{4! + .4}{.4}$	$\frac{(\Gamma(4))!}{\sqrt{.4}} + 4!!$
	$\sqrt{4} \times \left(\frac{(4!!)!!}{\Gamma(4)} + 4 \right)$	$\frac{\Gamma(4)}{.4\%} + \Sigma(4)$	$\Sigma(4)^{\sqrt{4}} + \Gamma(4)^{\sqrt{4}}$

SECTION II — SOLUTIONS 101–200

	$\frac{4}{4\%} + \Sigma(4!!) + \Gamma(\sqrt{4})$	$\frac{\sqrt{4}}{.4\%} + (\Gamma(4))!!$	$\frac{(4!!)!}{(4!!)!!} + (4 \times 4!!)$
137	$\frac{C(4!, \sqrt{4}) - \sqrt{4}}{\sqrt{4}}$	$\sqrt{! (4!!) + (\Sigma(4))!! + (4! \times 4)}$	
	$\left(atan(\Gamma(\sqrt{4})) \times \sqrt{\frac{4}{.4}} \right) + \sqrt{4}$	$asin(\Gamma(\sqrt{4})) + (\Gamma(4))!! - \frac{4}{4}$	
	$\frac{4}{4\%} + \Sigma(4!!) + \sqrt{4}$	$\frac{\sqrt{.4}}{.4\%} - \frac{4!}{\sqrt{4}}$	$\frac{P(4!, \sqrt{4})}{\sqrt{4} + \sqrt{4}}$
138	$(\sqrt{4} \times \Sigma(\Gamma(4))) + 4! + 4$	$(44 + \sqrt{4}) \times \Sigma(\sqrt{4})$	$\Gamma(\Gamma(4)) + (4 \times 4) + \sqrt{4}$
	$\frac{\sqrt{.4}}{.4\%} - \frac{4!}{\sqrt{4}}$	$\sqrt{alog(4) + \Sigma(atan(-\Gamma(\sqrt{4}))) - \Sigma(4 \times 4)}}$	
	$\frac{4}{4\%} + \Sigma(4!!) + \Sigma(\sqrt{4})$	$\Gamma(\Gamma(4)) + 4! - \frac{\sqrt{4}}{.4}$	$\frac{(4!!)!}{(4!!)!!} + 4! + \Sigma(4)$
139	$\frac{\Sigma(acsc(\sqrt{4})) - 4! - 4!}{\Sigma(\sqrt{4})}$	$\frac{C(4!, \sqrt{4}) + \sqrt{4}}{\sqrt{4}}$	$\frac{P(4!, \sqrt{4}) + 4}{4}$
	$(4! \times \Gamma(4)) - \frac{\sqrt{4}}{.4}$	$\Sigma(\Sigma(\Gamma(4))) - \Gamma(\Gamma(4)) + 4! + 4$	
	$\frac{4}{4\%} + \Sigma(4!!) + 4$	$alog(\sqrt{4}) + 44 - 4$	$\left(\frac{\sqrt{4}}{.4}\right)! + 4! - 4$
140	$\frac{\sqrt{\sqrt{\sqrt{4^{4!}}}}}{.4} - 4$	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} - 4$	$\frac{P(4!, \sqrt{4}) + 4!!}{4}$
	$\Sigma(\Sigma(4)) + \Sigma(\Gamma(4)) + 4^{\Sigma(\sqrt{4})}$	$C(4!!, 4) + asec(\sqrt{4}) + \Sigma(4)$	
	$\frac{4}{4\%} + atan(\Gamma(\sqrt{4})) - 4$	$(4! \times 4) + atan\left(\frac{4}{4}\right)$	$\frac{asin\left(\frac{4}{4}\right) + 4}{\sqrt{.4}}$
141	$(atan(\Gamma(\sqrt{4})) + \sqrt{4}) \times \sqrt{\frac{4}{.4}}$	$\frac{\Sigma(\Sigma(4!!)) - alog(\sqrt{4}) - \sqrt{4}}{4}$	
	$\frac{(4!!)!}{(\Gamma(4))!} + .4$	$\Gamma(\Gamma(4)) + 4! - \sqrt{\frac{4}{.4}}$	$C(4!!, 4) +$

SECTION II — SOLUTIONS 101–200

	$\frac{4}{4\%} + \Sigma(4!!) + \Gamma(4)$	$\left(\frac{\sqrt{4}}{.4}\right)! + 4! - \sqrt{4}$	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} - \sqrt{4}$
142	$\frac{\sqrt{\sqrt{4^{4!}}}}{.4} - \sqrt{4}$	$C(4!!, 4) + \frac{(\Gamma(4))!!}{.4}$	$\frac{\Gamma(4!!)}{\Gamma(4)} + (\Gamma(4))!!!!$
	$\frac{\Sigma(\Sigma(4!!)) - a\log(\sqrt{4}) + \sqrt{4}}{4}$	$\frac{(4!!)!! - \frac{4}{4\%}}{\sqrt{4}}$	
	$\frac{4}{4\%} + \text{atan}(\Gamma(\sqrt{4})) - \sqrt{4}$	$a\log(\sqrt{4}) + 44 - \Gamma(\sqrt{4})$	
143	$\frac{\sqrt{\sqrt{4^{4!}} - .4}}{.4}$	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} - \Gamma(\sqrt{4})$	$\Gamma(\Gamma(4)) + 4! - \frac{4}{4}$
	$\frac{\Sigma(\Sigma(4!!)) - a\log(\sqrt{4}) + \Gamma(4)}{4}$	$\sqrt{!(4+4) + ((4+\sqrt{4})!!!)!!!!}$	
	$\frac{4}{4\%} + 44$	$(4+4+4)^{\sqrt{4}}$	$\frac{4!}{\sqrt{4}} \times \frac{4!}{\sqrt{4}}$
144	$\frac{4^{\Sigma(\sqrt{4})}}{\sqrt{.4} \times \sqrt{.4}}$	$\frac{.4 \times (4+\sqrt{4})!}{\sqrt{4}}$	$\frac{.44}{.4\%} + \text{atan}(\Gamma(\sqrt{4}))$
	$\Sigma(4+4) \times (\sqrt{4} + \sqrt{4})$	$\frac{\Sigma((\Gamma(4))!!) - 4!}{4+4}$	$(\Sigma(\Gamma(4)) \times 4) + \frac{4!}{4}$
	$\sqrt{\frac{(4!!)! + \Sigma((\Gamma(4))!!) - 4!}{\sqrt{4}}}$	$\sqrt{\frac{(4!!)!}{\sqrt{4}} + (4!)^{\sqrt{4}}}$	
145	$\frac{4}{4\%} + \Sigma\left(\frac{4}{.4}\right)$	$\frac{\sqrt{\sqrt{4^{4!}}} + .4}{.4}$	$\Gamma(\Gamma(4)) + 4! + \frac{4}{4}$
	$a\log(\sqrt{4}) + 44 + \Gamma(\sqrt{4})$	$\Sigma(acsc(\sqrt{4})) - \Sigma(4!) - 4! + 4$	
	$\frac{4}{4\%} + \text{atan}(\Gamma(\sqrt{4})) + \Gamma(\sqrt{4})$	$\sqrt{(4!)!!!!!! + a\log(4) - (4 \times \Sigma(\Gamma(4)))}$	
146	$C(4!!, 4) + (4!!)!!! - 4$	$a\log(\sqrt{4}) + 44 + \sqrt{4}$	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} + \sqrt{4}$
	$\frac{(\Gamma(4))!! + \sqrt{.4}}{\sqrt{.4}} \times \sqrt{4}$	$\left(\frac{\sqrt{4}}{.4}\right)! + 4! + \sqrt{4}$	$\frac{\sqrt{\sqrt{4^{4!}}}}{.4} + \sqrt{4}$

SECTION II — SOLUTIONS 101–200

	$\frac{4}{4\%} + \text{atan}(\Gamma(\sqrt{4})) + \sqrt{4}$	$(\Gamma(4))!! + \Sigma(\Sigma(4)) + (4!!)!!! - \Gamma(4)$
147	$\Gamma(\Gamma(4)) + 4! + \sqrt{\frac{4}{.4}}$	$\left((\Gamma(4))!! + \frac{4}{4}\right) \times \Sigma(\sqrt{4})$
	$\frac{(4!!)!}{(4!!)!!} + \text{atan}(\Gamma(\sqrt{4})) - \Sigma(\sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) - (\Sigma(\Gamma(4)) \times 4)$
	$\frac{4}{4\%} + 4! + 4!$	$\left(\frac{4!}{\sqrt{4}}\right)^{\sqrt{4}} + 4$
	$\frac{(\Gamma(4))!!}{.4} + (4!!)!!! - 4$	$\frac{.4 \times \Sigma(\Sigma(4!!))}{4 - \sqrt{4}}$
148	$\frac{444}{\Sigma(\sqrt{4})}$	$\frac{4!}{4\%} - 4!!$
	$\left(\frac{\sqrt{4}}{.4}\right)! + 4! + 4$	$4^{\Sigma(\sqrt{4})} + (\Gamma(4))!! + \Sigma(4!!)$
	$\Sigma(4 \times 4) + \frac{4!}{\sqrt{4}}$	$\sqrt{\left(\Sigma(\Gamma(4))\right)!!!! - C(4!, \sqrt{4}) + 4}$
	$\frac{4}{4\%} + \text{atan}(\Gamma(\sqrt{4})) + 4$	$\frac{\frac{\Gamma(4)}{.4\%} - \Sigma(4)}{\Sigma(4)}$
149	$\frac{\sqrt{.4}}{.4\%} - \frac{4}{4}$	$\Gamma(\Gamma(4)) + 4! + \frac{\sqrt{4}}{.4}$
	$\frac{(4!!)!}{(4!!)!!} + 44$	$\frac{4!}{4\%} - 4$
	$\frac{4!}{4\%} - 4$	$\frac{\left(\text{asec}(\sqrt{4})\right)^{\sqrt{4}} - 4!}{4!}$
	$\frac{4}{4\%} + \frac{\sqrt{4}}{4\%}$	$\frac{4!}{4\% \times (\sqrt{4} + \sqrt{4})}$
150	$\frac{4}{4\%} + (\Gamma(4))!! + \sqrt{4}$	$\left(\frac{\sqrt{4}}{.4}\right)!! \times \frac{4}{.4}$
	$\frac{4 \times 4}{.4 \times (4!) \%}$	$\Gamma(\Gamma(4)) + 4! + 4 + \sqrt{4}$
	$\frac{\sqrt{4} + \sqrt{4} + \sqrt{4}}{4\%}$	$\sqrt{\frac{4}{4} \div .4\% \%}$
		$\frac{4! \times 4}{(4^{\Sigma(\sqrt{4})}) \%}$

SECTION II — SOLUTIONS 101–200

	$\frac{4}{4\%} + \Sigma(\Gamma(4)) - 4$	$\frac{4!}{4 \times 4\%} + \Gamma(\sqrt{4})$	$\frac{\sqrt{.4}}{.4\%} + \frac{4}{4}$
151	$\frac{\frac{4!}{.4} + .4}{.4}$	$\frac{(asec(\sqrt{4}))^{\sqrt{4}} + 4!}{4!}$	$\frac{\Gamma(4)}{.4\%} + \Sigma(4)$ $\Sigma(4)$
	$\Gamma(\Gamma(4)) + 4! + 4!! - \Gamma(\sqrt{4})$	$\sqrt{!(4!!) + P(\Sigma(\Gamma(4)), \Sigma(\sqrt{4})) - (\Gamma(4))!!!!}$	
152	$\frac{4}{4\%} + (\Gamma(4))!! + 4$	$(44 \times 4) - 4!$	$\frac{4!}{.4 \times .4} + \sqrt{4}$
	$\frac{(asec(\sqrt{4}))^{\sqrt{4}} + (\Gamma(4))!!}{4!}$	$\sqrt{4} \times \left(\frac{(\Gamma(4))!!}{.4} + 4 \right)$	$\frac{4!}{4\%} + 4!!$ $\frac{4}{4}$
153	$\frac{4}{4\%} + \Sigma(\Sigma(4)) - \sqrt{4}$	$\Gamma(\Gamma(4)) + 4! + \frac{4}{.4}$	$\frac{\sqrt{.4}}{.4\%} + \sqrt{\frac{4}{.4}}$
	$C(4!!, 4) + (4!!)!!! + \Gamma(\sqrt{4})$	$\sqrt{!(4!!) + (\Sigma(\Gamma(4)))!!!!!! + (4!!)!!! - !4}$	
154	$\frac{4}{4\%} + \frac{4!}{.4}$	$(4! \times \Gamma(4)) + \frac{4}{.4}$	$\frac{\Sigma(4!) + 4 + 4}{\sqrt{4}}$
	$C(4!!, 4) + asec(\sqrt{4}) + 4!$	$\sqrt{(\Sigma(4 + \sqrt{4}))!!!! + \Sigma\left(\Sigma\left(\frac{4}{.4}\right)\right)}$	
	$\frac{4!}{.4 \times .4} + 4$	$\frac{asec(\sqrt{4}) + 4!! + .4}{.4}$	$\frac{.4}{.4\%} + \sqrt{\sqrt{4^{4!}}}$
155	$\frac{4}{4\%} + \Sigma\left(\frac{4}{.4}\right)$	$\frac{4^{\Sigma(\sqrt{4})} - \sqrt{4}}{.4}$	$\frac{\Sigma(4!) + \Gamma(4) + 4}{\sqrt{4}}$
	$\frac{\sqrt{.4}}{.4\%} + \frac{\sqrt{4}}{.4}$	$atan\left(-\frac{4}{4}\right) + \frac{4!!}{.4}$	$\frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})} + \Sigma\left(\frac{4!}{\sqrt{4}}\right)$
156	$\frac{4}{4\%} + (\Gamma(4))!! + 4!!$	$\frac{(4 + \sqrt{4})!}{4} - 4!$	$(4! \times \Gamma(4)) + \frac{4!}{\sqrt{4}}$
	$\frac{.4}{.4\%} + \Sigma(4!! + \Sigma(\sqrt{4}))$	$\frac{\Gamma(4!!)}{atan(\Gamma(\sqrt{4}))} + 44$	$(\Sigma(4) \times 4!!) + (4!!)!!! - 4$
	$\frac{\Sigma(4!) + \frac{4!}{\sqrt{4}}}{\sqrt{4}}$	$\frac{(\Gamma(4))!!}{4\%} + (\Gamma(4))!!$	$\frac{4!}{4\%} + 4!$ $\frac{4}{4}$

SECTION II — SOLUTIONS 101–200

	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + \sqrt{4}$	$\frac{\sqrt{.4}}{.4\%} + 4 + \Sigma(\sqrt{4})$	$\frac{\Sigma(4!) + \Sigma(4) + 4}{\sqrt{4}}$
157	$(4 \times atan(\Gamma(\sqrt{4}))) - 4! + \Gamma(\sqrt{4})$		$\frac{(asec(\sqrt{4}) \times \Sigma(\Gamma(4))) - 4}{4!!}$
	$(\Sigma(\Sigma(4)) \times \Sigma(\sqrt{4})) - 4!!$		$\frac{(4!!)!}{(4!!)!!} + asec(\sqrt{4}) - 4!!$
158	$\frac{4}{4\%} + (\Gamma(4))!! + \Sigma(4)$	$\frac{\sqrt{.4}}{.4\%} + 4 + 4$	$(\Sigma(\Gamma(4)) \times 4!!) - \frac{4}{.4}$
	$\frac{\Sigma(4!) + (4 \times 4)}{\sqrt{4}}$	$\frac{\Gamma(4!!)}{4!!} + 4$	$\frac{((\Gamma(4))!!!!)!!!!!! - \sqrt{4}}{4 + \Gamma(\sqrt{4})}$
159	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + 4$	$asin(\Gamma(\sqrt{4})) + (\Gamma(4))!! + atan(\Gamma(\sqrt{4})) - 4!$	
	$\frac{\sqrt{.4}}{.4\%} + \frac{4}{.4}$	$\frac{\Sigma(4!) + \frac{4!!}{.4}}{\sqrt{4}}$	$\frac{\sqrt{\sqrt{\sqrt{4^{4!}}}} - .4}{.4}$
160	$\frac{4}{4\%} + \frac{4!}{.4}$	$4 \times 4 \times \frac{4}{.4}$	$\frac{\sqrt{.4}}{.4\%} + \frac{4}{.4}$
		$\sqrt{\Sigma(\Sigma(\Gamma(4)))} - \Sigma((\Gamma(4))!!) - \frac{4!!}{.4}$	$\frac{.4 \times (4 + \sqrt{4})!}{\sqrt{4}}$
161	$\frac{4}{4\%} + asec(\sqrt{4}) + \Gamma(\sqrt{4})$		$\sqrt{\Sigma(\Sigma(\Gamma(4)))} - \frac{(4!!)!}{\Sigma(4!!)} + \Sigma(\Gamma(4))$
	$\frac{(\Gamma(4))^4 - 4!!}{4!!}$	$\frac{(\Gamma(4))!! + 4! - .4}{.4}$	$\frac{\sqrt{\sqrt{\sqrt{4^{4!}}}} + .4}{.4}$
162	$\frac{4}{4\%} + asec(\sqrt{4}) + \sqrt{4}$	$\frac{(\Gamma(4))^4}{4 + 4}$	$\frac{4!}{.4} \times \sqrt{\frac{4}{.4}}$
	$\frac{(4 + \sqrt{4})!! + 4!}{.4}$	$\frac{\sqrt{.4}}{.4\%} + \frac{4!}{\sqrt{4}}$	$(\Sigma(\Gamma(4)) \times 4!!) - 4 - \sqrt{4}$
163	$\frac{4}{4\%} + asec(\sqrt{4}) + \Sigma(\sqrt{4})$		$(\Sigma(\Gamma(4)) \times 4!!) - \Sigma(\sqrt{4}) - \sqrt{4}$
	$\frac{\Sigma(4!) + 4! + \sqrt{4}}{\sqrt{4}}$	$\frac{(\Gamma(4))^4 + 4!!}{4!!}$	$\frac{(\Gamma(4))!! + 4! + .4}{.4}$

SECTION II — SOLUTIONS 101–200

164	$\frac{4}{4\%} + \sqrt{\sqrt{4^{4!}}}$	$\left(\frac{\sqrt{4}}{.4}\right)! + 44$	$\frac{4!!}{4\%} - \Sigma(4 + 4)$
	$\sqrt{\Sigma\left(\Sigma\left(\Sigma(4 + \sqrt{4})\right)\right) + \frac{4}{4\%}}$		$\frac{\Sigma(\Sigma(4 + 4)) - \Sigma(4)}{4}$
165	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + \Sigma(4)$	$\frac{\Sigma(\Sigma(4)) \times (4 + \sqrt{4})}{\sqrt{4}}$	$\frac{4^{\Sigma(\sqrt{4})} + \sqrt{4}}{.4}$
	$\frac{\Sigma(4!) + \text{asin}\left(\frac{\sqrt{4}}{4}\right)}{\sqrt{4}}$	$\frac{(4!!)!}{(4!!)!!} + \frac{4!}{.4}$	$(4! \times \Gamma(4)) + \Sigma(4 + \sqrt{4})$
166	$\frac{4}{4\%} + \Sigma(4!! + \Sigma(\sqrt{4}))$		$\frac{\Sigma(\Sigma(4 + 4)) - \sqrt{4}}{4}$
	$\frac{\frac{(4!!)!}{\Gamma(\Gamma(4))} - 4}{\sqrt{4}}$	$\Gamma(\Gamma(4)) + 44 + \sqrt{4}$	$4^4 - \frac{.4}{.4\%}$
	$((\Sigma(\Gamma(4)) \times 4) - \Gamma(\sqrt{4})) \times \sqrt{4}$		$a\log(\sqrt{4}) + 4^{\Sigma(\sqrt{4})} + \sqrt{4}$
167	$.4 \times \left(\Sigma(acsc(\sqrt{4})) - \frac{\sqrt{4}}{4\%}\right)$		$\frac{\sqrt{.4}}{.4\%} + (4 \times 4)$
	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + (\Gamma(4))!!!!$		$\frac{\Sigma(\Sigma(4 + 4)) + \sqrt{4}}{4}$
	$\left(\frac{\sqrt{4}}{.4}\right)! + (\Gamma(4))!! - \Gamma(\sqrt{4})$		$\frac{\frac{(4!!)!}{\Gamma(\Gamma(4))} - \sqrt{4}}{\sqrt{4}}$
168	$\frac{4}{4\%} + \text{asec}(\sqrt{4}) + 4!!$	$(44 - \sqrt{4}) \times 4$	$\left(\frac{4!}{4} + 4!\right) \times \sqrt{4}$
	$(4! + 4) \times (4 + \sqrt{4})$	$\Sigma(\Gamma(4)) \times 4!! \times \frac{4}{4}$	$(4^4 - 4) \times \sqrt{.4}$
	$\frac{\Sigma(4!) + \Sigma(4 + 4)}{\sqrt{4}}$	$\frac{4! \times \Sigma(4 + \sqrt{4})}{\Sigma(\sqrt{4})}$	$\frac{\Sigma(\Sigma(4!!)) + 4 + \sqrt{4}}{4}$
	$\left(\Sigma(\Sigma(4)) + \frac{4}{4}\right) \times \Sigma(\sqrt{4})$	$a\log(\sqrt{4}) + \sqrt{\sqrt{4^{4!}}} + 4$	$\frac{4!!}{4\%} - (4!! \times 4)$

SECTION II — SOLUTIONS 101–200

169	$\frac{4}{4\%} + \text{atan}(\Gamma(\sqrt{4})) + 4!$	$\frac{\Sigma(acsc(\sqrt{4})) + \Sigma(4!!) + \Gamma(4)}{\Sigma(\sqrt{4})}$	
	$\left(4!! + \frac{\sqrt{4}}{.4}\right)^{\sqrt{4}}$	$\frac{(4! + \sqrt{4})^{\sqrt{4}}}{4}$	$\frac{(4!!)!}{(4!!)!!} + 4^{\Sigma(\sqrt{4})}$
170	$\frac{4}{4\%} + C(4!!, 4)$	$\frac{4!!}{4\%} - \sqrt{\frac{4}{.4\%}}$	$\frac{\frac{(4!!)!}{\Gamma(\Gamma(4))} + 4}{\sqrt{4}}$
	$\sqrt{4} \times \left(\Sigma\left(\frac{4}{.4}\right) + acsc(\sqrt{4}) \right)$	$\sqrt{\left((4 + \sqrt{4})^{!!!} \right)!!!! - (4!)!!!!!! + 4}$	
171	$\frac{4}{4\%} + \Sigma(\Gamma(4)) + (\Sigma(4))!!!!$	$\frac{(4!!)!! + \Sigma(4!)}{\sqrt{4} + \sqrt{4}}$	
	$(\Sigma(4) + !4) \times \frac{4}{.4}$	$\frac{4!}{4!!} \times (\Sigma(\Sigma(4)) + \sqrt{4})$	$\frac{P(4!!, \Sigma(\sqrt{4})) + \Gamma(4)}{\sqrt{4}}$
	$\frac{asec(\sqrt{4}) + 4!! + .4}{.4}$	$(\Sigma(\Gamma(4)) - \sqrt{4}) \times \frac{4}{.4}$	$\frac{\frac{4}{4\%} - 4!}{.4}$
172	$\frac{4}{4\%} + \frac{(\Gamma(4))!!}{.4}$	$(44 \times 4) - 4$	$\frac{4!!}{4\%} - 4! - 4$
	$a\log(\sqrt{4}) + 4! + 4! + 4!$	$\frac{\Sigma(\Sigma(4)) + \Sigma(\Gamma(4)) + .4}{.4}$	$\frac{(4!!)!! - \Sigma(4!!) - 4}{\sqrt{4}}$
173	$\frac{4}{4\%} + (\Gamma(4))!!! + \Sigma(\Sigma(4))$	$\frac{4!!}{4\%} - \Sigma(\Gamma(4)) - \Sigma(\Sigma(\sqrt{4}))$	
	$\frac{(4!!)!! - (\Gamma(4))!! + \Sigma(4)}{\sqrt{4}}$	$(\Sigma(4) + \Sigma(\sqrt{4}))^{\sqrt{4}} + 4$	
	$(\Sigma(\Sigma(4)) \times \Sigma(\sqrt{4})) + 4 + 4$	$\frac{\Sigma(\Sigma(4!!)) + 4! + \sqrt{4}}{4}$	
174	$\frac{4}{4\%} + (4!!)!!! - \Gamma(4)$	$(44 \times 4) - \sqrt{4}$	$\frac{(4 + \sqrt{4})! - 4!}{4}$
	$\sqrt{(4!!)!} - a\log(4) - 44$	$\frac{4!!}{4\%} - 4! - \sqrt{4}$	$\frac{\Sigma(\Sigma(\Sigma(4))) + 4! + \sqrt{4}}{!4}$
175	$\frac{4}{4\%} + \frac{\Sigma(\sqrt{4})}{4\%}$	$\frac{4! + 4}{.4 \times .4}$	$(\Sigma(4!!) - \Gamma(\sqrt{4})) \times \frac{\sqrt{4}}{.4}$
	$\frac{4!!}{4\%} - \frac{a\log(\sqrt{4})}{4}$	$\Sigma((\Gamma(4))!!!) + 4 + 4 - 4$	$\Gamma(4 + \sqrt{4}) + \Sigma\left(\frac{4}{.4}\right)$

SECTION II — SOLUTIONS 101–200

175 (cont.)	$\frac{(\Gamma(4))! - 4! + 4}{4}$	$(\Sigma(4) + 4)^{\sqrt{4}} - \Sigma(\Gamma(4))$	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4}))\right) - \frac{\sqrt{4}}{.4}$
176	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + \Sigma(\Gamma(4))$	$a \log(\sqrt{4}) + (\Gamma(4))!! + 4! + 4$	
	$44 \times \sqrt{4} \times \sqrt{4}$	$\frac{(4 + \sqrt{4})!}{4} - 4$	$\frac{4 + 4}{4\%} - 4!$
	$\frac{\Sigma(\Gamma(4))}{4\%} + \Sigma(\sqrt{4})}{\Sigma(\sqrt{4})}$	$\left(\frac{\sqrt{4}}{.4}\right)! + (\Gamma(4))!! + 4!!$	$\frac{C(4!!, 4) + .4}{.4}$
177	$\frac{(4!!)!! - 4! - 4!!}{\sqrt{4}}$	$(4! \times \Sigma(4)) - 4^{\Sigma(\sqrt{4})}$	$4^4 - (\Sigma(4) \times 4!!)$
	$(\sqrt{4} \times 4^{\Sigma(\sqrt{4})}) + (\Gamma(4))!!$	$4! \times (4 + 4 - \sqrt{.4})$	
	$\frac{4}{4\%} + \frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})}$	$\frac{(4!!)!!}{(4!!)!!} + (\Sigma(4!!) \times \sqrt{4})$	$\frac{(4!!)!! - \sqrt{\frac{4}{.4\%}}}{\sqrt{4}}$
178	$\Sigma(\Sigma(\Gamma(4))) - 44 - \Sigma(4)$	$\frac{\sqrt{.4}}{.4\%} + (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$	$\frac{4!!}{4\%} - 4! + \Gamma(\sqrt{4})$
	$\frac{4}{4\%} + \Sigma\left(\frac{4!}{\sqrt{4}}\right)$	$\frac{(4 + \sqrt{4})!}{4} - \sqrt{4}$	$\Gamma(\Gamma(4)) + (\Gamma(4))!! + \frac{4}{.4}$
179	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + 4!$	$\frac{4!!}{4\%} - \Sigma(4 + \sqrt{4})$	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4}))\right) - \frac{4}{4}$
	$\Sigma(\Sigma(\Gamma(4))) - 44 - 4!!$	$\Sigma(4! - \sqrt{4}) - (4!!)!!! + \Gamma(4)$	$\frac{P(\Gamma(4), 4) - \sqrt{4}}{\sqrt{4}}$
180	$\frac{4}{4\%} + (\Sigma(4) \times 4!!)$	$(44 \times 4) + 4$	$\frac{(\sqrt{4} + \sqrt{4} + \sqrt{4})!}{4}$
	$\frac{4!!}{.4} \times 4$	$\frac{4!!}{4\%} - \frac{4!!}{.4}$	$\frac{4}{.4\%} - \left(\frac{4!}{4}\right)!$
181	$\frac{4}{4\%} + (\Sigma(\sqrt{4}))^4$	$\frac{4!!}{4\%} - \Sigma(\Gamma(4)) + \sqrt{4}$	$\Sigma(\Sigma(\Gamma(4))) - 44 - \Gamma(4)$
	$\frac{(\Sigma(4) \times 4!!) + .\bar{4}}{.4}$	$\frac{(\Gamma(4))!! + 4! + .4}{.4}$	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4}))\right) + \frac{4}{4}$

SECTION II — SOLUTIONS 101–200

182	$\frac{4}{4\%} + \text{asin}(\Gamma(\sqrt{4})) - 4!!$	$\frac{(4 + \sqrt{4})!}{4} + \sqrt{4}$	
	$\frac{4!!}{4\%} - \frac{4!!}{.4}$	$(4!!)!! - \frac{4!!}{4\%} - \sqrt{4}$	$(44 \times 4) + \Gamma(4)$
183	$\frac{4}{4\%} + (4!!)!!! + \Sigma(\sqrt{4})$	$\frac{4!!}{4\%} - \Sigma(\Gamma(4)) + 4$	$\frac{(4!!)!}{(4!!)!!} + \Sigma\left(\frac{4!}{\sqrt{4}}\right)$
	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4}))\right) + \sqrt{\frac{4}{.4}}$	$\frac{P(\Gamma(4), 4) + \Gamma(4)}{\sqrt{4}}$	$\frac{P(4!, \sqrt{4}) - \Sigma(\sqrt{4})}{\Sigma(\sqrt{4})}$
184	$\frac{4}{4\%} + (\Sigma(\Gamma(4)) \times 4)$	$\frac{4!!}{4\%} - (4 \times 4)$	$(4 + 4)!! - \frac{4!!}{4\%}$
	$\frac{(4 + \sqrt{4})!}{4} + 4$	$\Sigma\left(\left(\frac{\sqrt{4}}{.4}\right)!!\right) + \sqrt{\sqrt{4^{4!}}}$	$(\Gamma(4))^{\Sigma(\sqrt{4})} - \sqrt[4]{4}$
	$(4! \times 4!!) - (4 \times \sqrt{4})$	$4 \times (44 + \sqrt{4})$	$(4! \times 4!!) - 4 - 4$
185	$\frac{4}{4\%} + (\Sigma(\Sigma(4)) + \text{acsc}(\sqrt{4}))$	$\Sigma(\Sigma(\Gamma(4))) - 44 - \sqrt{4}$	
	$\frac{4!!}{4\%} - \left(\frac{\sqrt{4}}{.4}\right)!!$	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4}))\right) + \frac{\sqrt{4}}{.4}$	$\frac{(4!!)!}{(4!!)!!} + (\Sigma(4) \times 4!!)$
186	$\frac{4}{4\%} + \text{asin}(\Gamma(\sqrt{4})) - 4$	$\frac{(4 + \sqrt{4})! + 4!}{4}$	
	$\frac{4!!}{4\%} - \Sigma(4) - 4$	$\left(4 \cdot \text{atan}\left(\frac{4}{4}\right)\right) + \Gamma(4)$	$\frac{\frac{4}{4\%} + 4!}{\sqrt{.4}}$
187	$\frac{4}{4\%} + \text{asin}(\Gamma(\sqrt{4})) - \Sigma(\sqrt{4})$	$\frac{P(4!, \sqrt{4}) + !4}{\Sigma(\sqrt{4})}$	
	$\frac{(\Gamma(4))! + 4! + 4}{4}$	$\Sigma(\Sigma(4 + \sqrt{4})) - 44$	$\frac{\text{atan}(\Gamma(\sqrt{4}))}{(4!) \%} - \frac{\sqrt{4}}{4}$
188	$\frac{4}{4\%} + \text{asin}(\Gamma(\sqrt{4})) - \sqrt{4}$	$\text{alog}(\sqrt{4}) + (\sqrt{4} \times 44)$	
	$\sqrt{4} \times \left(\frac{.4}{4\%} + 4\right)$	$(4! \times 4 \times \sqrt{4}) - 4$	$\frac{4!!}{4\%} - \frac{4!}{\sqrt{4}}$
	$\sqrt{(4!!)! - \Gamma(4!!) + 4^{\Sigma(\sqrt{4})}}$	$\frac{(4!!)!! - 4 - 4}{\sqrt{4}}$	$\frac{(4!!)!}{4!} + (\Gamma(4))!!!!$

SECTION II — SOLUTIONS 101–200

189	$\frac{4}{4\%} + \arcsin(\Gamma(\sqrt{4})) - \Gamma(\sqrt{4})$	$\Sigma(\Sigma(\Gamma(4))) - 44 + \sqrt{4}$	
	$\Sigma(4 + \sqrt{4}) \times \frac{4}{.4}$	$(4 \cdot \arctan(\Gamma(\sqrt{4}))) + \frac{4}{.4}$	$\frac{(4!!)!!}{(4!!)!!} + (\Sigma(\Gamma(4)) \times 4)$
190	$\frac{4}{4\%} + \frac{.4}{.4\%}$	$\frac{4!!}{4\%} - \frac{4}{.4}$	$(4! \times 4 \times \sqrt{4}) - \sqrt{4}$
	$\frac{4}{4\%} + \frac{.4}{.4\%}$	$\frac{(4 \times \Sigma(\Gamma(4))) + .4}{.4}$	$(\Sigma(\Gamma(4)) - \sqrt{4}) \times \frac{4}{.4}$
191	$\frac{4}{4\%} + \Sigma(\Sigma(4) + \Sigma(\sqrt{4}))$	$\frac{\Sigma(\Sigma(4)) + \Sigma(\Gamma(4)) + .4}{.4}$	
	$\frac{4!!}{4\%} - \frac{4}{.4}$	$\Sigma(\Sigma(4) + 4!!) + 4! - 4$	$\frac{(4 + 4)!! - \sqrt{4}}{\sqrt{4}}$
192	$\frac{4}{4\%} + \arcsin(\Gamma(\sqrt{4})) + \sqrt{4}$	$(4! \times 4) + (4! \times 4)$	
	$4! \times (4 + \sqrt{4} + \sqrt{4})$	$\sqrt{\sqrt{\sqrt{4^{4!}}}} \times \sqrt{\frac{4}{.4}}$	$\frac{4!!}{4\%} - 4 - 4$
193	$\frac{4}{4\%} + \arcsin(\Gamma(\sqrt{4})) + \Sigma(\sqrt{4})$	$a\log(\sqrt{4}) + \arcsin(\Gamma(\sqrt{4})) + \sqrt{\frac{4}{.4}}$	
	$\Sigma(\Sigma(4) + 4!!) + 4! - \sqrt{4}$	$\frac{4!!}{4\%} - 4 - \Sigma(\sqrt{4})$	$\frac{(4!)^{\sqrt{4}} + \Sigma(\sqrt{4})}{\Sigma(\sqrt{4})}$
	$(\Sigma(\Gamma(4)) \times \frac{4}{.4}) + 4$	$\frac{(4 + 4)!! + \sqrt{4}}{\sqrt{4}}$	$(\Sigma(4) + 4)^{\sqrt{4}} - \Sigma(\sqrt{4})$
194	$\frac{4}{4\%} + \arcsin(\Gamma(\sqrt{4})) + 4$	$(4! \times 4 \times \sqrt{4}) + \sqrt{4}$	
	$\Sigma(4! - 4) - (4 \times 4)$	$(\Sigma(4) + 4)^{\sqrt{4}} - \sqrt{4}$	$\frac{4!!}{4\%} - 4 - \sqrt{4}$
195	$\frac{4}{4\%} + \arctan(\Gamma(\sqrt{4})) + (\Sigma(4))!!!!$	$\Sigma(\Sigma(\Gamma(4))) - a\log(\sqrt{4}) + \sqrt{\sqrt{\sqrt{4^{4!}}}}$	
	$\left(\frac{4!!}{(\sqrt{4})\%} - \Sigma(4) \right) \div \sqrt{4}$	$\frac{(4!)^{\sqrt{4}} + !4}{\Sigma(\sqrt{4})}$	$\arctan\left(-\frac{4}{4}\right) + \operatorname{asec}\left(\frac{4}{\sqrt{4}}\right)$
	$\frac{4!!}{4\%} - \frac{\sqrt{4}}{.4}$	$(\Sigma(4!!) + \Sigma(\sqrt{4})) \times \frac{\sqrt{4}}{.4}$	$\Sigma\left(\frac{4}{.4} + 4!!\right) + 4!$

SECTION II — SOLUTIONS 101–200

196	$\frac{4}{4\%} + (4! \times 4)$	$(4! \times 4 \times \sqrt{4}) + 4$	$\frac{4!!}{4\%} - \sqrt{4} - \sqrt{4}$
	$4^4 - \frac{4!}{.4}$	$\left(\frac{4}{.4} + 4\right)^{\sqrt{4}}$	$4 \times \left(\frac{\sqrt{4}}{4\%} - \Gamma(\sqrt{4})\right)$
197	$\frac{4}{4\%} + a \log(\sqrt{4}) - \Sigma(\sqrt{4})$	$\Sigma(\Sigma(4) + 4!!) + 4! + \sqrt{4}$	
	$(4!!)!! - \Sigma(\Sigma(\Gamma(4))) + 44$	$\Sigma(\Sigma(\Gamma(4))) - 4! - \frac{4}{.4}$	$\frac{4!!}{4\%} - \sqrt{\frac{4}{.4}}$
198	$\frac{4}{4\%} + a \log(\sqrt{4}) - \sqrt{4}$	$\frac{4!!}{4\%} - \frac{4}{\sqrt{4}}$	$(\Sigma(4) + 4)^{\sqrt{4}} + \sqrt{4}$
	$44 \times \frac{\sqrt{4}}{.4}$	$\frac{(4!!)!! + 4!! + 4}{\sqrt{4}}$	$((\Gamma(4))!! \times 4) + 4 + \sqrt{4}$
	$\Sigma(\sqrt{4}) \times \left(\sqrt{\sqrt{\sqrt{4^{4!}}} + \sqrt{4}} \right)$	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4})) \right) + \frac{4!!}{.4}$	
199	$\frac{4}{4\%} + a \log(\sqrt{4}) - \Gamma(\sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) - \sqrt[4]{4}$	
	$\Sigma(\Sigma(4) + 4!!) + 4! + 4$	$\frac{a \sin(\Gamma(\sqrt{4})) - \sqrt{4} + .4}{.4}$	$\frac{4!!}{4\%} - \frac{4}{4}$
200	$\frac{4}{4\%} + \frac{4}{4\%}$	$4 \times (4! + 4! + \sqrt{4})$	$\left(4! + \frac{4}{4}\right) \times 4!!$
	$(4! - 4) \times \frac{4}{.4}$	$(44 \times 4) + 4!$	$(\Gamma(4))^{\Sigma(\sqrt{4})} - 4^{\sqrt{4}}$
	$(4! \times 4!!) + (4 \times \sqrt{4})$	$4^4 - \frac{(4!!)!}{(\Gamma(4))!}$	$\left(4 \times \Sigma(\Sigma(4))\right) - \frac{4!!}{.4}$
	$\sqrt{(4!!)! - (4!!)!! + \sqrt{\sqrt{4^{4!}}}}$	$\left(4 \cdot \text{atan}(\Gamma(\sqrt{4}))\right) + 4! - 4$	
	$\left(\Sigma(\sqrt{4}) \times \Sigma(4!! + \Sigma(\sqrt{4}))\right) + \sqrt{4}$	$\sqrt{(4!!)! - (\Sigma(\Sigma(4)) \times \Gamma(4)) + \Sigma(4)}$	

Solutions History 101–200

<i>n</i>	1993	1998	2012	2021
101	1	1	4	11
102	2	2	4	9
103	1	1	4	8
104	2	2	4	5
105	2	2	7	7
106	3	3	5	5
107	4	4	6	9
108	4	4	7	8
109	3	3	5	6
110	2	2	10	10
111	3	3	5	8
112	2	2	4	9
113	5	5	5	8
114	1	1	3	8
115	1	1	4	8
116	2	2	4	11
117	1	1	3	5
118	1	1	5	10
119	2	2	3	6
120	2	2	5	8
121	3	3	7	9
122	1	1	4	6
123	2	2	4	6
124	2	2	7	11
125	2	2	4	6
126	1	1	3	6
127	1	1	4	6
128	2	2	3	6
129	2	2	3	6
130	2	2	3	9
131	1	1	4	9
132	1	1	3	11
133	1	1	3	6
134	2	2	3	6
135	1	1	4	6
136	2	2	6	12
137	4	4	5	7
138	1	1	5	8
139	2	2	4	8
140	4	4	5	8

<i>n</i>	1993	1998	2012	2021
141	1	1	7	8
142	3	3	5	8
143	2	2	5	7
144	5	6	11	11
145	2	2	5	5
146	4	4	5	8
147	2	2	5	7
148	4	4	6	13
149	3	3	5	8
150	7	7	11	12
151	3	3	6	8
152	2	2	3	6
153	2	2	3	5
154	1	1	4	8
155	2	2	5	6
156	1	1	3	9
157	1	1	4	7
158	1	1	3	6
159	1	2	4	5
160	3	3	4	5
161	1	1	3	5
162	1	1	3	6
163	1	1	3	5
164	1	2	4	5
165	1	1	3	6
166	2	2	7	9
167	1	1	4	6
168	1	1	6	12
169	2	2	3	5
170	3	3	3	5
171	1	1	4	8
172	1	1	5	6
173	1	1	4	6
174	3	3	3	6
175	2	2	6	9
176	1	1	11	13
177	1	1	3	6
178	2	2	5	6
179	1	1	3	6
180	3	3	5	6

<i>n</i>	1993	1998	2012	2021
181	1	1	5	6
182	2	2	4	5
183	1	1	3	6
184	1	1	5	9
185	1	1	4	5
186	1	1	4	5
187	1	1	3	5
188	2	2	5	8
189	1	1	4	5
190	2	2	5	6
191	1	1	4	5
192	2	2	4	5
193	1	1	5	8
194	1	1	4	5
195	1	1	3	8
196	1	1	4	6
197	1	1	4	5
198	2	2	5	8
199	1	1	4	5
200	3	3	12	13
Σ	188	191	464	727

The first solution for every number in this section is formed the same way: use the same two-4 solution for 100 and add an applicable two-4 solution for the remainder. I have taken a similar approach in Sections III, IV, and V, and will take a similar approach in Section VI–X. This only became possible because the Multifactorial and Subfactorial functions (introduced here in v4.00) allowed me to finally create two-4 solutions for 67, 71, 73, 74, 83, and 95.

Similarly, I could have used a two-4 solution for 200 and subtracted an applicable two-4 solution for the difference. However, I chose not to do this except in specific cases. This leaves out many hundreds of potential solutions between 1 and 1,000, which I invite the reader to create. It's easy. Trust me. ☺

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SECTION III — SOLUTIONS 201–300

201	$\frac{4!!}{4\%} + \frac{4}{4}$	$\sqrt{(4!!)! + \left(\frac{4}{.4}\right)^{\sqrt{4}}}$	$\frac{(4!!)!}{(4!!)!!} + (4! \times 4)$
	$\frac{4}{.4 \times 4\%} - 4!$	$\frac{(4!! \times \Sigma(4)) + .4}{.4}$	$\frac{4!}{4!!} \times (\Sigma(\Sigma(4)) + (\Gamma(4))!!!!)$
202	$\frac{4!!}{4\%} + 4 - \sqrt{4}$	$\sqrt{4} \times \left(\frac{4}{4\%} + \Gamma(\sqrt{4}) \right)$	$\sqrt{(4!!)! + (4!!)!! + \frac{4}{4\%}}$
	$\sqrt{4} \times \left(\frac{(4!!)!}{(4!!)!!} - 4 \right)$	$\frac{(\Gamma(4))! - 4}{4!!}$	$\frac{\frac{4!!}{(\sqrt{4})\%} + 4}{\sqrt{4}}$
203	$\frac{4!!}{4\%} + \sqrt{\frac{4}{.4}}$	$\Sigma(\Sigma(4 + \sqrt{4})) - 4! - 4$	$\frac{\frac{4!!}{(\sqrt{4})\%} + \Gamma(4)}{\sqrt{4}}$
	$\frac{(4!!)!}{(4!!)!!} + a\log(\sqrt{4}) - \sqrt{4}$	$\frac{4}{4\%} + \Sigma(\Sigma(4)) + (\Gamma(4))!!$	$\frac{c(4!, \Sigma(\sqrt{4})) + \Gamma(4)}{\Sigma(4)}$
204	$\frac{4!!}{4\%} + \sqrt{4} + \sqrt{4}$	$\frac{4 + 4}{4\%} + 4$	$\sqrt{4} \times \left(\frac{4}{4\%} + \sqrt{4} \right)$
	$\Sigma(\sqrt{4}) \times \left(\sqrt{\sqrt{\sqrt{4^{4!}}} + 4} \right)$	$4 \times \left(\Sigma\left(\frac{4}{.4}\right) - 4 \right)$	$\frac{(4 + \sqrt{4})!}{4} + 4!$
	$4^4 - (\Gamma(4))!! - 4$	$\frac{(\Gamma(4))!!}{4\%} + 4!$	$\frac{P(\Gamma(4), 4) + (\Gamma(4))!!}{\sqrt{4}}$
	$\frac{a\log(\Sigma(\sqrt{4})) + (\Sigma(4))!!!!!!}{4 + \Gamma(\sqrt{4})}$	$\frac{(4!)!!!!!! - \Gamma(\Gamma(4))}{4!! + \sqrt{4}}$	
	$\sqrt{(4!!)! + ((\sqrt{4} + \sqrt{4} + \sqrt{4})!!!)}!!!!$	$\sin(\Gamma(\sqrt{4})) + (4!!)!!! + acsc(\sqrt{4}) + 4$	
	$\sqrt{(4!!)! + \frac{4! \times 4!}{.4}}$	$\left(\frac{(4!!)!}{(4!!)!!} \times \sqrt{4} \right) - \Gamma(4)$	$\frac{\frac{4!!}{(\sqrt{4})\%} + 4!!}{\sqrt{4}}$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \frac{\sqrt{4}}{.4}$	$\frac{(4!!)!}{(4!!)!!} + \frac{4}{4\%}$	$\frac{\frac{4!!}{(\sqrt{4})\%} + \Sigma(4)}{\sqrt{4}}$
205	$\frac{((\Gamma(4))!!!)!!!!!! + 4! + 4}{4}$	$\operatorname{atan}\left(-\frac{4}{4}\right) + C(4!! , 4)$	$(\operatorname{atan}(\Gamma(\sqrt{4})) - 4) \times \frac{\sqrt{4}}{.4}$
	$\Sigma(\Sigma(4 + \sqrt{4})) - 4! - \sqrt{4}$	$\frac{4 \times \sqrt{4}}{4\%} + E(4)$	$\frac{\Sigma(\Sigma(4!))}{\Sigma(\Gamma(4))} + alog(\sqrt{4})$
	$\frac{4!!}{4\%} + 4 + \sqrt{4}$	$\left(\frac{(4!!)!}{(4!!)!!} \times \sqrt{4}\right) - 4$	$\frac{\frac{4!!}{(\sqrt{4})\%} + (\Gamma(4))!!!}{\sqrt{4}}$
206	$(4! \times 4!!) + \Sigma(4) + 4$	$(\Gamma(4))^{\Sigma(\sqrt{4})} - \frac{4}{.4}$	$4^4 - \frac{\sqrt{4}}{4\%}$
	$\sqrt{(4!!)! + (4!)!!!!!! - 44}$	$\operatorname{asin}(\Gamma(\sqrt{4})) + (4!!)!!! + acsc(\sqrt{4}) + \Gamma(4)$	
	$\Sigma(\Sigma(\Gamma(4))) - 4! - \frac{4}{4}$	$\sqrt{4} \times \left(\frac{4}{4\%} + \Sigma(\sqrt{4})\right)$	$(4 \times \Sigma(\Sigma(4))) - \Sigma(4) - 4$
207	$\frac{4!!}{4\%} + 4!! - \Gamma(\sqrt{4})$	$(4! - \Gamma(\sqrt{4})) \times \frac{4}{.4}$	$(4 \times \Sigma(\Sigma(4))) - !4 - 4$
	$(\Sigma(\Sigma(\Gamma(4))) - 4!) \times \frac{4}{4}$	$!4 \times \left(4! - \frac{4}{4}\right)$	$\Sigma(\Sigma(4) + 4!!) + \Sigma(4 + 4)$
208	$\frac{4!!}{4\%} + 4 + 4$	$4^4 - 4! - 4!$	$\sqrt{4} \times \left(\frac{4}{4\%} + 4\right)$
	$\frac{\Gamma(4!!)}{4!} - 4 + \sqrt{4}$	$\left(\frac{(4!!)!}{(4!!)!!} \times \sqrt{4}\right) - \sqrt{4}$	$\frac{\frac{\Gamma(4!!)}{\Gamma(4)} - 4!!}{4}$
	$(\Gamma(4))^{\Sigma(\sqrt{4})} - 4 - 4$	$\Sigma(\Sigma(\Gamma(4))) - 4! + \frac{4}{4}$	$4 \cdot \operatorname{atan}(\Gamma(\sqrt{4})) + 4! + 4$
	$\frac{\operatorname{asin}(\Gamma(\sqrt{4})) + \sqrt{4} + .\bar{4}}{.\bar{4}}$	$\Sigma(\Sigma(4) + 4!!) + \Sigma(4!!) + \Gamma(\sqrt{4})$	
209	$\frac{4!!}{4\%} + \frac{4}{.\bar{4}}$	$\frac{4!!}{4\%} + 4!! + \Gamma(\sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) - 4! + \sqrt{4}$
	$\frac{\frac{\Gamma(4!!)}{\Gamma(4)} - 4}{4}$	$\frac{\Gamma(4!!)}{4} - \Gamma(4)$	$\frac{\frac{(4!!)!}{4!} - 4!!}{4!!}$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \frac{4}{.4}$	$\frac{(4+4)!}{(4!!)!!} \times \sqrt{4}$	$C(4!!, 4) \times \sqrt{\frac{4}{.4}}$
210	$\Sigma(4 + \sqrt{4}) \times \frac{4}{.4}$	$(\Gamma(4))^{\Sigma(\sqrt{4})} - 4 - \sqrt{4}$	$\frac{4!!}{.4\%} + a \log(\sqrt{4})$ $\Sigma(4)$
	$\frac{4 \times \sqrt{4}}{4\%} + \Sigma(4)$	$\Sigma(\Sigma(4 + \sqrt{4})) - \Sigma(4 + \sqrt{4})$	
211	$\frac{4!!}{4\%} + 4!! + \Sigma(\sqrt{4})$	$4^4 - atan\left(\frac{4}{4}\right)$	$(4 \times \Sigma(\Sigma(4))) - \frac{4}{.4}$
	$\frac{(4 \times \Sigma(\Gamma(4))) + .4}{.4}$	$\Sigma(\Sigma(4 + \sqrt{4})) - \frac{4!!}{.4}$	$\frac{(4!)!!!!!! - (\sqrt{4} \div 4\%)}{\Sigma(4)}$
212	$\frac{4!!}{4\%} + \frac{4!}{\sqrt{4}}$	$4^4 - 44$	$\frac{4! \times 4}{.4} - 4$
	$4 \times \left(\Sigma\left(\frac{4}{.4}\right) + 4!!\right)$	$\frac{\frac{4!!}{(\sqrt{4})\%} + 4!}{\sqrt{4}}$	$\frac{4!}{4\%} + \Sigma(4!!)$ $\Sigma(\sqrt{4})$
213	$(\Gamma(4))^{\Sigma(\sqrt{4})} - \sqrt{4} - \sqrt{4}$	$\frac{\frac{4!!}{(\Gamma(\sqrt{4}))\%} + (\Gamma(4))!!}{4}$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}}} - 4$
	$\sqrt{4} \times \left(\frac{4}{4\%} + \Gamma(4)\right)$	$\frac{(4!)!!!!!! - (4 \times \Sigma(4))}{\Sigma(4)}$	$\frac{\frac{(4!!)!}{\Gamma(4)} - (\Gamma(4))!!!!}{!4}$
214	$\frac{4!!}{4\%} + !4 + 4$	$\frac{4! \times 4}{.4} - \Sigma(\sqrt{4})$	$\frac{\Gamma(4+4)}{4!} + \Sigma(\sqrt{4})$
	$\Sigma(\Sigma(4 + \sqrt{4})) - 4! + \Gamma(4)$		$\sqrt{(4!!)! + \Gamma(4!!) + \frac{4}{.4}}$
214	$\frac{4!!}{4\%} + 4!! + \Gamma(4)$	$\frac{4! \times 4}{.4} - \sqrt{4}$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}}} - \sqrt{4}$
	$(4! \times \Gamma(4)) + C(4!!, 4)$	$\frac{\sqrt{.4}}{.4\%} + \frac{(4!!)!!}{\Gamma(4)}$	$\frac{\Gamma(4+4)}{4!} + 4$
	$4^4 - \Sigma(4!!) - \Gamma(4)$	$\sqrt{4} \times (\Sigma(\Sigma(4) + 4) + \sqrt{4})$	$(4! \times 4!!) + 4! - \sqrt{4}$

SECTION III — SOLUTIONS 201–300

215	$\frac{4!!}{4\%} + \Sigma\left(\frac{\sqrt{4}}{.4}\right)$	$\frac{(4!!)!}{(4!!)!!} + a\log(\sqrt{4}) + \Sigma(4)$	$(\Gamma(4))^{\Sigma(\sqrt{4})} - \frac{4}{4}$
	$\frac{(4! \times 4) - .4}{.4}$	$\Sigma(\Sigma(4 + \sqrt{4})) - (4 \times 4)$	$a\tan\left(-\frac{4}{4}\right) + (\Sigma(4) \times 4!!)$
	$\frac{4}{.4 \times 4\%} - \Sigma(4)$ (see footnote 1)	$\frac{(4!!)!!}{.4} - 4$	$\frac{\Sigma(\Sigma(4!))}{\Sigma(\Gamma(4))} \times \frac{4}{4}$
216	$\frac{4!!}{4\%} + (4 \times 4)$	$(4 + \sqrt{4})^{\sqrt{4 \div .4}}$	$\sqrt{\sqrt{\sqrt{(\sqrt{4} + \sqrt{4} + \sqrt{4})^{4!}}}}$
	$4 \times \left(\frac{\sqrt{4}}{4\%} + 4\right)$	$\sqrt{4} \times \left(\frac{4}{4\%} + 4!!\right)$	$\Sigma(4!) - (\Sigma(4 + \sqrt{4}) \times 4)$
	$\Sigma(\Sigma(4 + \sqrt{4})) - \Sigma\left(\frac{\sqrt{4}}{.4}\right)$	$\sqrt{(4 + \sqrt{4})^{(4+\sqrt{4})}}$	$4^4 - (4 \times \Sigma(4))$
217	$\frac{4!!}{4\%} + !4 + 4!!$	$\frac{4}{.4 \times 4\%} - 4!!$	$(\Gamma(4))^{\Sigma(\sqrt{4})} + \frac{4}{4}$
	$\frac{(4! \times 4) + .4}{.4}$	$\frac{(4!)!!!!!! + \frac{4}{.4}}{\Sigma(4)}$	$\Sigma(\Sigma(\Gamma(4))) - \frac{4}{.4} - 4$
	$4^4 - \Sigma(4!!) - \Sigma(\sqrt{4})$	$\Gamma(\Gamma(4)) + \frac{(4!!)!}{(4!!)!!} - 4!!$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}} + \Gamma(\sqrt{4})}$

¹ There are at least four methods for creating 225 with three 4s, which is the basis for this particular solution for 215:

$$225 = \frac{4}{.4 \times 4\%} = \Gamma(\Gamma(4)) + \frac{(4!!)!}{(4!!)!!} = \left(\left(\frac{\sqrt{4}}{.4} \right) !! \right)^{\sqrt{4}} = \frac{\sqrt{4}}{.4} \times a\tan(\Gamma(\sqrt{4}))$$

For simplicity, I usually use just the first method for developing complete solutions for other integers that are based on 225 and usually (but not always) I do not show solutions based on the other methods. Similarly, when using numbers with multiple partial solutions (e.g. 12, 32, 64, etc.) to build complete solutions, I usually use just one of the available partial solutions per integer rather than create the additional similar solutions. Often the selection of one partial solution over another is based on similarity with other parts of the solution. For example, one solution for 75 is $\sqrt{C(\Sigma(\Gamma(4)), 4) - P(\Gamma(4), 4)} = \sqrt{5,985 - 360} = 75$. Of the two two-4 partial solutions I have for 360, I chose here the one based on the Permutation Function because the only two-4 partial solution I have for 5,985 is based on the related Combination Function.

SECTION III — SOLUTIONS 201–300

218	$\frac{4!!}{4\%} + \frac{4!!}{.4}$	$4^4 - \Sigma(4!!) - \sqrt{4}$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}}} + \sqrt{4}$
	$\sqrt{4} \times \left(a \log(\sqrt{4}) + \frac{4}{.4} \right)$	$(\Sigma(\Gamma(4)) \times 4!!) + \frac{\sqrt{4}}{4\%}$	$\frac{((\Gamma(4))!!!!)!!! - \frac{4!!}{4\%}}{4!!}$
219	$\frac{4!!}{4\%} + \Sigma(4) + !4$	$\Sigma(\Sigma(4 + \sqrt{4})) - \frac{4!}{\sqrt{4}}$	$\Gamma(\Gamma(4)) + \frac{(4!!)!}{(4!!)!!} - \Gamma(4)$
	$\Sigma(\Sigma(\Gamma(4))) - 4 - 4 - 4$	$\Sigma(4! - \sqrt{4}) - 4! - \Sigma(4)$	$\frac{4}{.4 \times 4\%} - \Gamma(4)$
220	$\frac{4!!}{4\%} + \frac{4!!}{.4}$	$\frac{4! + .4}{.4} \times 4$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}}} + 4$
	$\frac{\Sigma(\Sigma(4!!)) - 4 - \sqrt{4}}{\Sigma(\sqrt{4})}$	$\frac{44 \times \sqrt{4}}{.4}$	$\left(\frac{\sqrt{4}}{.4}\right)! + \frac{4}{4\%}$
221	$\frac{4!!}{4\%} + \Sigma(4 + \sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) - \frac{4}{.4}$	$\frac{4}{.4 \times 4\%} - 4$
	$\frac{44 + \sqrt{4\%}}{\sqrt{4\%}}$	$\frac{asin(\Gamma(\sqrt{4})) - \sqrt{4} + .4}{.4}$	$\frac{C(\Sigma(\Gamma(4)), \Sigma(\sqrt{4})) - 4}{\Gamma(4)}$
	$\Sigma(\Sigma(\Gamma(4))) - 4 - 4 - \sqrt{4}$		$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}}} + E(4)$
222	$\frac{4!!}{4\%} + 4! - \sqrt{4}$	$\frac{444}{\sqrt{4}}$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}}}} + \Gamma(4)$
		$\sqrt{(4!!)! + \Sigma(atan(-\Gamma(\sqrt{4}))) - (\Gamma(4))^{\Sigma(\sqrt{4})}}$	$\Sigma(\Sigma(4 + \sqrt{4})) - \frac{4}{.4}$
223	$\frac{4!!}{4\%} + \Sigma(\Gamma(4)) + \sqrt{4}$	$\Gamma(\Gamma(4)) + \frac{(4!!)!}{(4!!)!!} - \sqrt{4}$	$\frac{4}{.4\%} - \frac{4!!}{4}$
	$\frac{4}{.4 \times 4\%} - \sqrt{4}$	$(4 \times \Sigma(\Sigma(4))) + \frac{4!}{4!!}$	$\Sigma(\Sigma(4 + \sqrt{4})) - 4 - 4$
	$atan(-\Gamma(\sqrt{4})) + \frac{(4!!)!!}{\Gamma(4)} + 4!$		$C(4!! , 4) + (4!!)!! - \Sigma(\Sigma(\Gamma(4)))$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + (4 \times \Gamma(4))$	$\frac{\frac{4}{4\%} - .\bar{4}}{.\bar{4}}$	$\frac{\frac{4}{4\%} - 4}{4}$
224	$\frac{4+4}{4\%} + 4!$	$\left(\sqrt{4} \times \frac{(\Gamma(4))!!}{.\bar{4}}\right) + 4!!$	$(4! \times \Gamma(4)) + (\Sigma(4) \times 4!!)$
	$\sqrt{(4!!)! + a \log(4) - (4! \times \Gamma(4))}$		$4 \times ((4!! \times 4) + 4!)$
225	$\frac{4!!}{4\%} + \frac{\Gamma(\sqrt{4})}{4\%}$	$\frac{\sqrt{4}}{.4} \times \text{atan}\left(\frac{4}{4}\right)$	$\frac{\sqrt{4}}{4\%} \times \frac{\sqrt{4}}{.\bar{4}}$
	$\left(\frac{\sqrt{4}}{.4}\right)! + \frac{(4!!)!}{(4!!)!!}$	$\Sigma(\Sigma(4 + \sqrt{4})) - 4 - \sqrt{4}$	$\frac{\Gamma(4)}{(4 + \sqrt{4}) \times .\bar{4}\%}$
226	$\frac{4!!}{4\%} + 4! + \sqrt{4}$	$\frac{\frac{4}{4\%} + .\bar{4}}{.\bar{4}}$	$\sqrt{\sqrt{\sqrt{(4 + \sqrt{4})^{4!}} + \Sigma(4)}}$
	$\frac{4}{.\bar{4}\%} + 4$	$\frac{4}{.\bar{4} \times 4\%} + \Gamma(\sqrt{4})$	$(4! \times 4!!) + 4! + \Sigma(4)$
227	$\frac{4!!}{4\%} + (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$	$\Gamma(\Gamma(4)) + \frac{(4!!)!}{(4!!)!!} + \sqrt{4}$	$\Sigma(\Sigma(4 + \sqrt{4})) - \sqrt{4} - \sqrt{4}$
	$\frac{4}{.\bar{4} \times 4\%} + \sqrt{4}$	$\frac{\frac{4}{4\%} + 4!!}{4}$	$\frac{(4!!)!! + C(4!! , 4)}{\sqrt{4}}$
228	$\frac{4!!}{4\%} + 4! + 4$	$4^4 - 4! - 4$	$\sqrt{\sqrt{\sqrt{(\Gamma(4))^{4!}}} + \frac{4!}{\sqrt{4}}}$
	$\frac{4}{.\bar{4} \times 4\%} + \Sigma(\sqrt{4})$	$(4! \times 4!!) + \Sigma(4 + 4)$	$4 \times (\Sigma(\Sigma(\sqrt{4 \cdot 4})) + \sqrt{4})$
229	$\frac{4!!}{4\%} + \Sigma(\Gamma(4)) + 4!!$	$\Sigma(\Sigma(4 + \sqrt{4})) - 4 + \sqrt{4}$	$4^4 - (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$
	$\frac{4}{.\bar{4} \times 4\%} + 4$	$\Sigma\left(\frac{4!!}{.4}\right) + \text{asec}(\sqrt{4}) - \sqrt{4}$	$\left(\frac{\sqrt{4}}{.\bar{4}\%} + 4!!\right) \div \sqrt{4}$
230	$\frac{4!!}{4\%} + \sqrt{\frac{4}{.\bar{4}\%}}$	$(4! - \Gamma(\sqrt{4})) \times \frac{4}{.4}$	$4^4 - 4! - \sqrt{4}$
	$(4! \times \Sigma(4)) - \frac{4}{.4}$	$C(4!, \sqrt{4}) - 44 - \sqrt{4}$	$\Sigma(4!) - C(4 + 4, 4)$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) - 4!$	$\Sigma(\Sigma(4 + \sqrt{4})) \times \frac{4}{4}$	$\left(\Sigma(\Gamma(4)) \times \frac{4}{.4}\right) + \Sigma(\Gamma(4))$
231	$\frac{4}{.4 \times 4\%} + \Gamma(4)$	$\sqrt{\sqrt{\left(\Gamma(4)\right)^{4!}}} + \Sigma\left(\frac{\sqrt{4}}{.4}\right)$	$\frac{\arcsin\left(\Gamma(\sqrt{4})\right) + \sqrt{4} + .4}{.4}$
	$4^4 - (E(4))^{\sqrt{4}}$	$\Sigma(4!) - C(4!! , 4) + \Gamma(\sqrt{4})$	$\Sigma\left(\frac{4!!}{.4}\right) + \operatorname{asec}\left(\frac{4}{\sqrt{4}}\right)$
	$\frac{4!!}{4\%} + \sqrt[4]{4}$	$(\sqrt{4} + \sqrt{4})^4 - 4!$	$\sqrt{4} \times (\operatorname{alog}(\sqrt{4}) + 4^{\sqrt{4}})$
232	$\frac{4 \times (\Sigma(4!) - \Sigma(4))}{E(4)}$	$4 \times \left(\frac{4!}{.4} - \sqrt{4}\right)$	$\frac{(\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))) + \sqrt{4}}{\sqrt{4}}$
	$\frac{4!!}{4\%} + \operatorname{acsc}(\sqrt{4}) + \Sigma(\sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) + 4 - \sqrt{4}$	$\Sigma\left(\frac{4!!}{.4}\right) + \operatorname{asec}(\sqrt{4}) + \sqrt{4}$
233	$\frac{4}{.4 \times 4\%} + 4!!$	$(4! \times \Sigma(4)) - 4 - \Sigma(\sqrt{4})$	$\frac{\Sigma((\Gamma(4))!!) - !4 - \sqrt{4}}{E(4)}$
	$\frac{4!!}{4\%} + 4! + \Sigma(4)$	$4^4 - 4! + \sqrt{4}$	$\frac{(\sqrt{.4} \times \Sigma(\Sigma(4!!))) + 4!}{\sqrt{4}}$
234	$\frac{\Sigma((\Gamma(4))!!) - 4 - \sqrt{4}}{E(4)}$	$(E(4) \times ((\Gamma(4))!! - \Gamma(\sqrt{4}))) - \Gamma(\sqrt{4})$	
	$\frac{4!!}{4\%} + \Sigma(4!!) - \Gamma(\sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) + \sqrt{4} + \sqrt{4}$	$\frac{\sqrt{4}}{.4} \times ((\Gamma(4))!! - \Gamma(\sqrt{4}))$
235	$\frac{4}{.4 \times 4\%} + \Sigma(4)$	$\Sigma(\Sigma(4) + 4!!) + \frac{(4!!)!!}{\Gamma(4)}$	$E(4) \times \left((\Gamma(4))!! - \frac{4}{4}\right)$
	$\Sigma\left(\frac{4!!}{.4}\right) + \operatorname{asec}(\sqrt{4}) + 4$	$\frac{\operatorname{alog}(\sqrt{4}) + 4 \cdot \bar{4}}{.4}$	$\frac{\Sigma((\Gamma(4))!!) - \frac{4}{4}}{E(4)}$
	$\frac{4!!}{4\%} + \frac{4!}{\sqrt{.4}}$	$\left(\left(\frac{\sqrt{4}}{.4}\right)! \times \sqrt{4}\right) - 4$	$\left(\frac{4!}{.4} - \Gamma(\sqrt{4})\right) \times 4$
236	$4^4 - 4! + 4$	$\Sigma(4!) - C(4!! , 4) + \Gamma(4)$	$\Sigma(\Sigma(\Gamma(4))) + 4 + \frac{4}{4}$
	$\frac{\left(\frac{4}{4}\right)!! - \Gamma(\sqrt{4})}{4}$	$\Sigma(4!) - (4 \times 4 \times 4)$	$.4 \times \left(\frac{4!}{4\%} - \Sigma(4)\right)$

SECTION III — SOLUTIONS 201–300

236 (cont)	$(4!!)!! - \frac{4}{4\%} - (\Gamma(4))!!$	$\frac{(\Gamma(4))! - \frac{4!}{\sqrt{4}}}{\Sigma(\sqrt{4})}$	$C(4!, \sqrt{4}) - \Sigma(4!!) - 4$
	$\sqrt{\left(\frac{4!}{\sqrt{4}}\right)!! + a \log(4) - (4!!)!!}$		$\frac{\Sigma((4 + \sqrt{4})!!) + 4}{E(4)}$
237	$\frac{4!!}{4\%} + \Sigma(4!!) + \Gamma(\sqrt{4})$	$\frac{\frac{\sqrt{4}}{.4\%} + 4!}{\sqrt{4}}$	$(\Sigma(\Sigma(4)) + 4!) \times \sqrt{\frac{4}{.4}}$
	$\Sigma\left(\frac{4!!}{.4}\right) + \operatorname{asec}(\sqrt{4}) + \Gamma(4)$		$\Sigma(\Sigma(4 + \sqrt{4})) + 4 + \sqrt{4}$
238	$\frac{4!!}{4\%} + \Sigma(4!!) + \sqrt{4}$	$4^4 - \frac{4!!}{.4}$	$\frac{\Sigma((\Gamma(4))!!) + \Sigma(4) + 4}{E(4)}$
	$\frac{\frac{\sqrt{4}}{.4\%} - 4!}{\sqrt{4}}$	$\left(\left(\frac{\sqrt{4}}{.4}\right)! \times \sqrt{4}\right) - \sqrt{4}$	$\Sigma(\Sigma(4 + \sqrt{4})) + E(4) + \sqrt{4}$
239	$\frac{4!!}{4\%} + \Sigma(4!!) + \Sigma(\sqrt{4})$	$\frac{(4! \times 4) - .4}{.4}$	$\Sigma(\Sigma(4 + \sqrt{4})) + 4 + 4$
	$\left(\left(\frac{\sqrt{4}}{.4}\right)! \times \sqrt{4}\right) - \Gamma(\sqrt{4})$	$(4! \times \Sigma(4)) + 4 - E(4)$	$\Sigma(4! - \sqrt{4}) - \Sigma(4) - 4$
240	$\frac{4!!}{4\%} + \Sigma(4!!) + 4$	$4! \times (4 + 4 + \sqrt{4})$	$4^4 - 4^{\sqrt{4}}$
	$\frac{(4!!)!!}{\sqrt{4}} + 4! + 4!$	$\frac{(4!!)!! + (4! \times 4)}{\sqrt{4}}$	$\frac{4! \times 4 \cdot \bar{4}}{.4}$
	$\left(\frac{\sqrt{4}}{.4}\right)! \times \frac{4}{\sqrt{4}}$	$(4 + 4) \times \sqrt{\frac{4}{.4\%}}$	$\frac{\Sigma(44) - acsc(\sqrt{4})}{4}$
	$\frac{(4 + \sqrt{4})!}{\sqrt{\frac{4}{.4}}}$	$\left(!4 \times \sqrt{!4}^{\sqrt{!4}} \right) - \sqrt{!4}$	$E(4) \times \left(\sqrt{\sqrt{\sqrt{4^{4!}}} - (4!!)!!!!!!} \right)$
241	$\frac{4!!}{4\%} + atan(\Gamma(\sqrt{4})) - 4$	$\frac{(4! \times 4) + .4}{.4}$	$4^4 - \left(\frac{\sqrt{4}}{.4}\right)!!$
	$\frac{4! + 4! + \sqrt{4\%}}{\sqrt{4\%}}$	$\left(\left(\frac{\sqrt{4}}{.4}\right)! \times \sqrt{4}\right) + \Gamma(\sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{4}{.4}$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \Sigma(4!!) + \Gamma(4)$	$\frac{(4! - \sqrt{4})^{\sqrt{4}}}{\sqrt{4}}$	$4^4 - \Sigma(4) - 4$
242	$\frac{(4!!)!! + \frac{4}{4\%}}{\sqrt{4}}$	$\left(\left(\frac{\sqrt{4}}{.4}\right)! \times \sqrt{4}\right) + \sqrt{4}$	$\Sigma(\Sigma(4 + \sqrt{4})) + !4 + \sqrt{4}$
243	$\frac{4!!}{4\%} + atan(\Gamma(\sqrt{4})) - \sqrt{4}$	$\left(\sqrt{\frac{4}{.4}}\right)^{\left(\frac{\sqrt{4}}{.4}\right)}$	$(\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})} \times \frac{4}{.4}$
	$\frac{4! + 4!}{(.4)(.4)}$	$4^4 - !4 - 4$	$(!4 - \sqrt{4})^{\sqrt{!4}} - alog(\sqrt{4})$
	$\Sigma(\Sigma(\Gamma(4))) + 4 + 4 + 4$	$(E(4) \times (atan(\Gamma(\sqrt{4})) + 4)) - \sqrt{4}$	
244	$\frac{4!!}{4\%} + 44$	$\frac{\frac{4}{4\%} - 4!}{4}$	$\left(\left(\frac{\sqrt{4}}{.4}\right)! \times \sqrt{4}\right) + 4$
	$\frac{4! + .4}{.4} \times 4$	$4^4 - \frac{4!}{\sqrt{4}}$	$(4! \times \frac{4}{.4}) + 4$
	$\frac{alog(\sqrt{4}) + 4!! + .\bar{4}}{.\bar{4}}$	$4 \times (4!!^{\sqrt{4}} - \sqrt{!4})$	$\frac{\Gamma(\Gamma(4))}{.4} - \frac{(4!!)!}{(\Gamma(4))!}$
245	$\frac{4!!}{4\%} + atan\left(\frac{4}{4}\right)$	$\frac{\frac{4}{4\%} - \sqrt{4}}{.4}$	$\frac{\Sigma(44) - \Sigma(4)}{4}$
	$E(4) \times (E(4) + \sqrt{4})^{\sqrt{4}}$	$\Sigma(\Sigma(\Gamma(4))) + 4^{\sqrt{4}} - \sqrt{4}$	$\frac{\Sigma((\Sigma(4))!!!!)}{E(4)} - \frac{\sqrt{4}}{4\%}$
	$alog(\sqrt{4}) + atan(-\Gamma(\sqrt{4})) + \frac{4}{.4}$	$(atan(\Gamma(\sqrt{4})) + 4) \times \frac{\sqrt{4}}{.4}$	
246	$\frac{4!!}{4\%} + atan(\Gamma(\sqrt{4})) + \Gamma(\sqrt{4})$	$\frac{\Gamma(4)}{.4\%} - (\Gamma(4))! - (4!!)!!$	
	$4^4 - \frac{4}{.4}$	$\frac{\Sigma(44) - \Gamma(4)}{4}$	$\frac{\Gamma(4!!)}{4} - acsc(\sqrt{4})$
247	$\frac{4!!}{4\%} + atan(\Gamma(\sqrt{4})) + \sqrt{4}$	$4^4 - \frac{4}{.4}$	$\frac{\Sigma(44) - \sqrt{4}}{4}$
	$\Sigma(\Sigma(4 + \sqrt{4})) + (4 \times 4)$	$\sqrt{((\Gamma(4))!! \times !(\Gamma(4))) - (((\Sigma(4))!!!!!!)!!!!!! + \Gamma(4))}$	

SECTION III — SOLUTIONS 201–300

	$4^4 - 4 - 4$	$\frac{4!!}{4\%} + 4! + 4!$	$\frac{\Sigma(44) + \sqrt{4}}{4}$
248	$(\Gamma(4))^{\Sigma(\sqrt{4})} + (4!! \times 4)$	$4 \times \left(\sqrt{\sqrt{4^{4!}}} - \sqrt{4} \right)$	$(\Sigma(4) \times (E(4))^{\sqrt{4}}) - \sqrt{4}$
249	$\frac{4!!}{4\%} + atan(\Gamma(\sqrt{4})) + 4$	$4^4 - 4 - \Sigma(\sqrt{4})$	$\frac{\Sigma(44) + \Gamma(4)}{4}$
	$\frac{4}{4\%} - .4$	$(4! \times \frac{4}{.4}) + !4$	$\frac{(\Gamma(4))!!}{4\%} + \Sigma(!4)$ $E(4)$
250	$\frac{4!!}{4\%} + \frac{\sqrt{4}}{4\%}$	$4^4 - 4 - \sqrt{4}$	$\frac{\Sigma(44) + \Sigma(4)}{4}$
	$\frac{4 + 4 + \sqrt{4}}{4\%}$	$(\Sigma(\Gamma(4)) + 4) \times \frac{4}{.4}$	$\frac{\sqrt{4}}{.4\%} - \frac{4!!}{4\%}$
	$\frac{\Gamma(4)}{.4\% \times (4 + \sqrt{4})}$	$(4! \times \Sigma(4)) + 4!! + \sqrt{4}$	$\sqrt{4 \times \sqrt{\sqrt{\left(\frac{\sqrt{4}}{.4}\right)^{4!}}}}$
251	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) - 4$	$4^4 - \frac{\sqrt{4}}{.4}$	$\frac{4}{4\%} + .4$
	$\Sigma(\Sigma(\Gamma(4))) + (4 \cdot 4) + 4$	$\frac{\frac{\sqrt{4}}{.4\%} + \sqrt{4}}{\sqrt{4}}$	$\frac{\Gamma(4!!)}{4} - E(4)$ $E(4)$
252	$\frac{4!!}{4\%} + (\Gamma(4))!! + 4$	$4^4 - \sqrt{4} - \sqrt{4}$	$(4! + 4) \times \frac{4}{.4}$
	$\frac{4}{.4\%} + 4!!$	$\sqrt{4}^{(4+4)} - 4$	$\frac{4! \times \Sigma(4 + \sqrt{4})}{\sqrt{4}}$
	$\frac{(4!!)!}{(4!!)!!} \times (\sqrt{4} + .4)$	$4 \times \left(\frac{(4!!)!!!!}{.4} - !4 \right)$	$\Sigma(\Sigma(4 + \sqrt{4})) + \Sigma(4 + \sqrt{4})$
253	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) - \sqrt{4}$	$alog(\Sigma(\sqrt{4})) + \frac{4!}{\sqrt{4}}$	$\Sigma(\Sigma(\Gamma(4))) + 4! - \sqrt{4}$
	$4^4 - \sqrt{\frac{4}{.4}}$	$\frac{\Gamma(\Gamma(4)) - 4!! + .4}{.4}$	$\frac{\Sigma((\Sigma(4))!!!!)}{E(4)} - \frac{4}{.4}$

SECTION III — SOLUTIONS 201–300

254	$\frac{4!!}{4\%} + \frac{4!}{.4}$	$4^4 - 4 + \sqrt{4}$	$\sqrt{4}^{(4+4)} - \sqrt{4}$
	$\Sigma(4! - \sqrt{4}) + \frac{4}{4}$	$\frac{\Gamma(4!!)}{4!} + 44$	$\frac{\sqrt{4}}{.4\%} + 4!!$ $\sqrt{4}$
255	$\frac{4!!}{4\%} + \Sigma\left(\frac{4}{.4}\right)$	$4^4 - \frac{4}{4}$	$\frac{4}{4\%} + \sqrt{4}$ $.4$
	$\frac{4 + 4}{4\%} + \Sigma(\Sigma(4))$	$E(4) \times \left((\Sigma(4))!!!! + \frac{4}{4} \right)$	$\Sigma\left(\frac{\sqrt{4}}{.4}\right) \times (!4 + 4!!)$
256	$4 \times 4 \times 4 \times 4$	$4^4 \times \frac{4}{4}$	$\frac{4!!}{4\%} + C(4!!, \Sigma(\sqrt{4}))$
	$\left(\left(\sqrt{4}^{\sqrt{4}}\right)^{\sqrt{4}}\right)^{\sqrt{4}}$	$(\sqrt{4} + \sqrt{4})^{(\sqrt{4}+\sqrt{4})}$	$(4 + 4) \times \sqrt[4]{4}$
	$\sqrt{4}^{(4+\sqrt{4}+\sqrt{4})}$	$\sqrt{4} \times \sqrt{4} \times \sqrt{\sqrt{4^{4!}}}$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{\Gamma(\sqrt{4})}{4\%}$
257	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + \sqrt{4}$	$4^4 + \frac{4}{4}$	$\Sigma(\Sigma(\Gamma(4))) + 4! + \sqrt{4}$
	$\Sigma(\Sigma(4 + \sqrt{4})) + 4! + \sqrt{4}$	$\frac{(4! \times \Sigma(\Gamma(4))) + \Sigma(4)}{\sqrt{4}}$	$\frac{\Sigma((\Sigma(4))!!!!)}{E(4)} + \frac{4}{.4}$
258	$\frac{4!!}{4\%} + (\Gamma(4))!! + \Sigma(4)$	$4^4 + 4 - \sqrt{4}$	$\frac{4 + (4!!)^{\Sigma(\sqrt{4})}}{\sqrt{4}}$
	$\sqrt{4}^{(4+4)} + \sqrt{4}$	$\frac{\Gamma(4!!)}{4!} + 4! + 4!$	$\frac{alog(\Sigma(\sqrt{4})) + (4!!)!!!!}{4}$
259	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + 4$	$4^4 + \sqrt{\frac{4}{.4}}$	$\Sigma(\Sigma(\Gamma(4))) + 4! + 4$
	$\frac{(4!!)^{\Sigma(\sqrt{4})} + \Gamma(4)}{\sqrt{4}}$	$\frac{(\Gamma(4))! + \Sigma(\Sigma(4)) + \sqrt{4}}{\Sigma(\sqrt{4})}$	$\frac{((\Gamma(4))!!!))!!!! - \frac{4}{4}}{E(4)}$
260	$\frac{4!!}{4\%} + \frac{4!}{.4}$	$4^4 + \sqrt{4} + \sqrt{4}$	$(4! + \sqrt{4}) \times \frac{4}{.4}$
	$\sqrt{4}^{(4+4)} + 4$	$\frac{4}{4\%} + 4$	$\frac{\Gamma(\Gamma(4)) - 4 - .4}{.4}$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + \Gamma(4)$	$\Sigma(\Sigma(\Gamma(4))) + 4! + 4 + \sqrt{4}$	
261	$\frac{alog(\sqrt{4}) + 4.4}{.4}$	$\frac{alog(\sqrt{4}) + 4^{\sqrt{4}}}{.\bar{4}}$	$\frac{alog(\sqrt{4}) + (4!!)!!! - \Gamma(4)}{\sqrt{.4}}$
	$4^4 + \frac{\sqrt{4}}{.4}$	$\sqrt{\sqrt{\sqrt{(\Gamma(4))^{4!}}}} + atan\left(\frac{4}{4}\right)$	$\frac{((\Gamma(4))!!!)!!!! + \frac{4}{.4}}{E(4)}$
262	$\frac{4!!}{4\%} + asec(\sqrt{4}) + \sqrt{4}$	$4^4 + 4 + \sqrt{4}$	$\frac{\frac{\sqrt{4}}{.4\%} + 4!}{\sqrt{4}}$
	$\frac{\Gamma(\Gamma(4))}{.4} - 4 - 4$	$\frac{\Gamma(\Gamma(4)) - 4 + .\bar{4}}{.\bar{4}}$	$\sqrt{4} \times \left(\Sigma(\Sigma(\Gamma(4))) - \frac{4}{4\%}\right)$
	$\sqrt{\Sigma((4!!)!!) - \Gamma(4!!) - \Sigma(\Sigma(\Gamma(4))) - E(4)}$		$\sqrt{.4} \times ((4 + 4)!! + !4)$
263	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + 4!!$	$\frac{\Gamma(\Gamma(4))}{.4} - 4!! + \Gamma(\sqrt{4})$	$\Sigma(\Sigma(\Gamma(4))) + 4! + 4 + 4$
	$4^4 + 4!! - \Gamma(\sqrt{4})$	$(4!!)!! - \Gamma(\Gamma(4)) - \frac{4}{4}$	$\frac{\Sigma(\Gamma(4))}{4\%} + \Gamma(\sqrt{4})$
	$\frac{((\Gamma(4))!!!)!!!!!!}{\sqrt{!4}} - \frac{4}{4}$		$\frac{\Sigma((\Gamma(4))!!) - alog(\sqrt{4}) - 4!}{4}$
264	$\frac{4!!}{4\%} + \sqrt{\sqrt{\sqrt{4^{4!}}}}$	$4^4 + 4 + 4$	$4! \times \frac{44}{4}$
	$\frac{4! \times 4!}{\sqrt{4}} - 4!$	$\frac{4! \times 4}{.4} + 4!$	$\frac{44 \times 4}{\sqrt{.4}}$
	$\Sigma(4!) - 4! - \Gamma(4) - \Gamma(4)$	$4 \times \left(\frac{(4!!)!!}{\Gamma(4)} + \sqrt{4}\right)$	$\sqrt{4} \times \left(\frac{4}{4\%} + (4!!)!!!!\right)$
	$\frac{(\Gamma(4))!!}{.4 \times .\bar{4}} + \Sigma(\Gamma(4))$	$\frac{\Gamma(\Gamma(4))}{.4} - 4 - \sqrt{4}$	$\sqrt{.4} \times (4 \times alog(\sqrt{4}) - 4)$
265	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + \Sigma(4)$	$4^4 + \frac{4}{.\bar{4}}$	$(4!!)!! - \Gamma(\Gamma(4)) + \frac{4}{4}$
	$\Sigma(\Sigma(\Gamma(4))) + \sqrt[4]{4} + \sqrt{4}$		$\left(\Gamma(4) \times atan(\Gamma(\sqrt{4}))\right) - \frac{\sqrt{4}}{.4}$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \Sigma(4!! + \Sigma(\sqrt{4}))$	$4^4 + \frac{4}{.4}$	$C(4!, \sqrt{4}) - \frac{4}{.4}$
266	$!(\Gamma(4)) + \frac{4!!}{4+4}$	$\Sigma(\Sigma(4 + \sqrt{4})) + \Sigma(4!!) - \Gamma(\sqrt{4})$	
	$.4 \times (\Sigma(\Sigma(4 + 4)) - \Gamma(\sqrt{4}))$	$\sqrt{(!(\Gamma(4)))^{\sqrt{4}} + \Sigma(4!) + \Sigma(\Sigma(\Gamma(4)))}$	
	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + (\Gamma(4))!!!!$	$(4!!)!! - \Gamma(\Gamma(4)) + \sqrt{\frac{4}{.4}}$	$\Sigma(\Sigma(\Gamma(4))) + \sqrt[4]{4} + 4$
267	$\frac{(\Gamma(4))!!}{.4 \times .4} + 4!$	$\frac{(4!!)!! + \frac{\sqrt{.4}}{.4\%}}{\sqrt{4}}$	$C(4!, \sqrt{4}) - \frac{4}{.4}$
	$(\sin(\Gamma(\sqrt{4})) - \Gamma(\sqrt{4})) \times \sqrt{\frac{4}{.4}}$	$(\Gamma(4) \times \tan(\Gamma(\sqrt{4}))) - \sqrt{\frac{4}{.4}}$	
	$\frac{4!!}{4\%} + \sec(\sqrt{4}) + 4!!$	$4^4 + \frac{4!}{\sqrt{4}}$	$\frac{(4!!)^{\Sigma(\sqrt{4})} + 4!}{\sqrt{4}}$
268	$!(\Gamma(4)) + \frac{4!}{4+4}$	$\frac{alog(\Sigma(\sqrt{4})) + (!4 \times 4!!)}{4}$	$\frac{(4!)!!!!!! - 4}{!4 - 4}$
	$4 \times (\tan(\Gamma(\sqrt{4})) + 4! - \sqrt{4})$		$C(4!, \sqrt{4}) - 4 - 4$
	$\frac{4!!}{4\%} + \tan(\Gamma(\sqrt{4})) + 4!$	$(4!!)!! - \Gamma(\Gamma(4)) + \sqrt{\frac{4}{.4}}$	$4^4 + \Sigma(4) + \Sigma(\sqrt{4})$
269	$\frac{alog(\sqrt{4}) + 4!! - .4}{.4}$	$\frac{\left(\frac{\sqrt{4}}{.4}\right)! - .4}{.4}$	$\frac{\Sigma((\Gamma(4))!!)}{4} - \frac{4}{4\%}$
	$(\Gamma(4) \times \tan(\Gamma(\sqrt{4}))) - \frac{4}{4}$		$\Sigma(\Sigma(\Gamma(4))) + \sqrt[4]{4} + \Gamma(4)$
	$\frac{4!!}{4\%} + C(4!!, 4)$	$\frac{4!}{.4} \times \frac{\sqrt{4}}{.4}$	$\frac{4! + 4!}{.4 \times .4}$
	$\frac{\sqrt{.4}}{.4\%} + \left(\frac{\sqrt{4}}{.4}\right)!$	$\frac{\Gamma(4)}{.4\%} \times \frac{.4}{\sqrt{4}}$	$\frac{\Gamma(\Gamma(4))}{.4} - \sqrt{\frac{4}{.4\%}}$
270	$(4 + \sqrt{4}) \times \tan\left(\frac{4}{4}\right)$	$\frac{4}{\sqrt{4}} \times \tan\left(-\frac{4}{4}\right)$	$\frac{4}{4} \times (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$

SECTION III — SOLUTIONS 201–300

	$\frac{4!!}{4\%} + \Sigma(\Gamma(4)) + (\Sigma(4))!!!!$	$\Sigma(\Sigma(4) + 4!!) + \frac{4}{4\%}$
271	$4^4 + \left(\frac{\sqrt{4}}{.4}\right)!!$	$\frac{\left(\frac{\sqrt{4}}{.4}\right)! + .\bar{4}}{.4}$
	$\left(\Gamma(4) \times \text{atan}(\Gamma(\sqrt{4}))\right) + \frac{4}{4}$	$\Sigma(\Sigma(\Gamma(4))) + 4! + 4^{\sqrt{4}}$
	$\frac{4!!}{4\%} + (!4 \times 4!!)$	$4^4 + (4 \times 4)$
	$4 \times 4 \times (!4 + 4!!)$	$C(4!, \sqrt{4}) - \sqrt{4} - \sqrt{4}$
272	$\sqrt{\Sigma((4+4)!!) + 4^{\Sigma(\sqrt{4})}}$	$\frac{\frac{(\Gamma(4))!}{\sqrt{.4}} + 4!!}{4}$
	$\left(\Gamma(4) \times \text{atan}\left(\frac{4}{4}\right)\right) + \sqrt{4}$	$.4 \times ((\Gamma(4))! - (4 \times \Sigma(4)))$
273	$\frac{4!!}{4\%} + (\Gamma(4))!!! + \Sigma(\Sigma(4))$	$4^4 + \Sigma(\Gamma(4)) - 4$
	$\left(\Gamma(4) \times \text{atan}(\Gamma(\sqrt{4}))\right) + \sqrt{\frac{4}{.4}}$	$(4!!)!! - \Gamma(\Gamma(4)) + \frac{4}{.4}$
	$\frac{4!!}{4\%} + (4!!)!!! - \Gamma(4)$	$4^4 + \frac{4!!}{.4}$
274	$\left((\Sigma(4))!!!!!!\right)!!!!!! + \sqrt{\sqrt{4^{4!}}} + \Sigma(4)$	$\frac{\Sigma((\Gamma(4))!!) - (\Sigma(4) \times 4!!)}{4}$
	$\frac{.4}{4\% \times 4\%} + 4!$	$\frac{(4!)!!!!!! + 4! + \sqrt{4}}{E(4)}$
	$\frac{4!!}{4\%} + \frac{\Sigma(\sqrt{4})}{4\%}$	$\frac{44}{.4 \times .4}$
	$\frac{\Sigma(\Sigma(4))}{\sqrt{4}} \times \frac{4}{.4}$	$\frac{\Gamma(\Gamma(4))}{.4} - \frac{\text{alog}(\sqrt{4})}{4}$
	$\frac{P(4!, \sqrt{4}) - \sqrt{4}}{\sqrt{4}}$	$\frac{\text{alog}(\Sigma(\sqrt{4})) + \frac{4}{4\%}}{4}$
275	$C(4!, \sqrt{4}) - \frac{4}{4}$	$\left(\Gamma(4) \times \text{atan}(\Gamma(\sqrt{4}))\right) + \frac{\sqrt{4}}{.4}$

SECTION III — SOLUTIONS 201–300

276	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + \Sigma(\Gamma(4))$	$4^4 + 4! - 4$	$C(4!, \sqrt{4}) \times \frac{4}{4}$
	$4 \times \left(atan\left(\frac{4}{4}\right) + 4! \right)$	$\frac{\Sigma(\Sigma(4))}{4\%} + E(4)$	$\left(\Sigma(4) \times \sqrt{\frac{4}{.4\%}} \right) - 4!$
	$\frac{\Sigma\left(\frac{4}{.4}\right) + \sqrt{4\%}}{\sqrt{4\%}}$	$\Sigma\left(\Sigma(4 + \sqrt{4})\right) + atan\left(\frac{4}{4}\right)$	$\frac{\Gamma(4 + \sqrt{4})}{.4} - 4!$
	$\left(\Gamma(4) \times atan\left(\Gamma(\sqrt{4})\right) \right) + 4 + \sqrt{4}$		$\sqrt{\Sigma((4!!)!!) + \frac{\Sigma(4)}{.4\%} + \Gamma(4)}$
277	$\frac{4!!}{4\%} + \frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})}$	$C(4!, \sqrt{4}) + \frac{4}{4}$	$\Sigma(4!) - 4! + \frac{4}{4}$
	$(4!!)!! - alog(\sqrt{4}) - 4!! + \Gamma(\sqrt{4})$		$\frac{P(4!, \sqrt{4}) + \sqrt{4}}{\sqrt{4}}$
278	$\frac{4!!}{4\%} + \Sigma\left(\frac{4!}{\sqrt{4}}\right)$	$4^4 + 4! - \sqrt{4}$	$\Sigma(4!) - 4! + 4 - \sqrt{4}$
	$\left(\Gamma(4) \times atan\left(\Gamma(\sqrt{4})\right) \right) + 4 + 4$		$\frac{P(4!, \sqrt{4}) + 4}{\sqrt{4}}$
279	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + 4!$	$(4 + 4)!! - \frac{(4!!)!}{(4!!)!!}$	$\Sigma(4!) - 4! + \sqrt{\frac{4}{.4}}$
	$C(4!, \sqrt{4}) + \sqrt{\frac{4}{.4}}$	$\frac{\Gamma(\Gamma(4))}{.4} - \Sigma(4 + \sqrt{4})$	$\frac{P(4!, \sqrt{4}) + \Gamma(4)}{\sqrt{4}}$
	$\left(\Gamma(4) \times atan\left(\Gamma(\sqrt{4})\right) \right) + \frac{4}{.4}$		$\left(acsc(\sqrt{4}) + \Gamma(\sqrt{4}) \right) \times \frac{4}{.4}$
280	$\frac{4!!}{4\%} + (\Sigma(4) \times 4!!)$	$(4! + 4) \times \frac{4}{.4}$	$4 \times C(4 + 4, 4)$
	$\frac{\Gamma(\Gamma(4)) + 4 + .\bar{4}}{.\bar{4}}$	$\Sigma(4!) - \frac{4 + 4}{.4}$	$\sqrt{4}^{(4+4)} + 4!$
	$\frac{\Gamma(\Gamma(4))}{.4} - \frac{4!!}{.4}$	$\frac{4}{.4\%} - \left(\frac{4!}{4}\right)!$	$\frac{P(4!, \sqrt{4}) + 4!!}{\sqrt{4}}$
	$\left(\Gamma(4) \times atan\left(\Gamma(\sqrt{4})\right) \right) + \frac{4}{.4}$		$\left(\frac{44 - 4}{4}\right) !!!$
		$(\Sigma(4) + 4) \times \frac{4!!}{.4}$	

SECTION III — SOLUTIONS 201–300

281	$\frac{4!!}{4\%} + (\Sigma(\sqrt{4}))^4$	$\Sigma(4!) - 4! + \frac{\sqrt{4}}{.4}$	$\frac{P(4!, \sqrt{4}) + \Sigma(4)}{\sqrt{4}}$
	$\frac{\Gamma(\Gamma(4)) - 4!! + .4}{.4}$	$(4!!)!! - alog(\sqrt{4}) - \sqrt{\frac{4}{.4}}$	$C(4!, \sqrt{4}) + \frac{\sqrt{4}}{.4}$
282	$\frac{4!!}{4\%} + asin(\Gamma(\sqrt{4})) - 4!!$	$4^4 + 4! + \sqrt{4}$	$\Sigma(4!) - (4 \times 4) - \sqrt{4}$
	$(4!!)!! - \frac{4}{4\%} - \sqrt{4}$		$\frac{\Sigma((\Gamma(4))!!) - 4! - 4!}{4}$
283	$\frac{4!!}{4\%} + (4!!)!!! + \Sigma(\sqrt{4})$	$\Sigma(4! - \sqrt{4}) + \sqrt{\frac{4}{.4\%}}$	$\frac{\Sigma((\Gamma(4))!!) - 44}{4}$
	$(4!!)!! - alog(\sqrt{4}) - \frac{4}{4}$		$\sqrt{(4!!)!!! \times alog(\Sigma(\sqrt{4}))} + (4!!)!!! + !4$
284	$\frac{4!!}{4\%} + asec(\sqrt{4}) + 4!$	$4^4 + 4! + 4$	$\frac{4! \times 4!}{\sqrt{4}} - 4$
	$(4 + 4)!! - \frac{4}{4\%}$	$\sqrt{4} \times (\Gamma(\Gamma(4)) + 4! - \sqrt{4})$	$\frac{\Sigma(\Sigma(\Sigma(4))) - \left(\frac{\sqrt{4}}{.4}\right)!}{E(4)}$
	$4 \times (atan(\Gamma(\sqrt{4})) + 4! + \sqrt{4})$		$(\Gamma(4))! - (4!!)!! - (\Gamma(4))!! - 4$
	$(4!!)!! - \Gamma(\Gamma(4)) + 4! - 4$		$(4 + \sqrt{4}) \times ((\Gamma(4))!! - \sqrt{.4})$
285	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + acsc(\sqrt{4})$		$\frac{\Sigma((\Gamma(4))!!) - \Sigma(4 + 4)}{4}$
	$(4!!)!! - alog(\sqrt{4}) + \frac{4}{4}$	$\Sigma(4! - \sqrt{4}) + \sqrt[4]{4}$	$4^4 + \Sigma(\Gamma(4)) + 4!!$
	$\frac{\Gamma(\Gamma(4))}{.4} - \left(\frac{\sqrt{4}}{.4}\right)!!$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{4!}{.4}$	$\Sigma(\Sigma(4)) \times \Gamma(4) - \Sigma\left(\frac{4}{.4}\right)$
	$E(4) \times ((4!!)!!!! + E(4)^{\sqrt{4}})$		$(4! \times \Gamma(4)) + \Sigma(\Sigma(\Gamma(4))) - asin(\Gamma(\sqrt{4}))$
286	$\frac{4!!}{4\%} + asin(\Gamma(\sqrt{4})) - 4$	$4^4 + \sqrt{\frac{4}{.4\%}}$	$\frac{(4! \times 4!) - 4}{\sqrt{4}}$
	$(4!!)!! - \Gamma(\Gamma(4)) + 4! - \sqrt{4}$		$(4!!)!! - \frac{4}{4\%} + \sqrt{4}$

SECTION III — SOLUTIONS 201–300

286 (cont)	$\sqrt{\Sigma((4!!)!!) + \Sigma(\Gamma(\Gamma(4))) + \Sigma(\Sigma(4!!)) - (\Sigma(4))!!!!!!}$ $\sqrt{(\sqrt{4} \times (4!!)!) + \Sigma((\Gamma(4))!!) - (\Sigma(4))!!!!!!}$		
287	$\frac{4!!}{4\%} + \Sigma(\Sigma(4)) + (4!!)!!!!$	$\frac{(4! \times 4!) - \sqrt{4}}{\sqrt{4}}$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{(4!!)!}{(\Gamma(4))!}$
	$(4!!)!! - alog(\sqrt{4}) + \sqrt{\frac{4}{.4}}$	$\frac{\Sigma((\Gamma(4))!!) - 4! - 4}{4}$	$\frac{(\Sigma(\Gamma(4)))!!!!!! - C(4!! , 4)}{E(4)}$
288	$\frac{4!!}{4\%} + asin(\Gamma(\sqrt{4})) - \sqrt{4}$	$4! \times (4 + 4 + 4)$	$4! \times 4 \times \sqrt{\frac{4}{.4}}$
	$(4!!)!! - \frac{4}{4\%} + 4$	$4^4 + \sqrt[4]{4}$	$\frac{4! \times 4!}{4 - \sqrt{4}}$
	$(4 + 4)!! - (4! \times 4)$	$(4!!)!! - \Gamma(4 + \sqrt{4}) + 4!$	$\Sigma(4!) - (4 + 4 + 4)$
	$\sqrt{4} \times (alog(\sqrt{4}) + 44)$	$(4!)!!!!!! \times \frac{4!!}{4 + 4}$	$!(\Gamma(4)) + 4! - \frac{4}{4}$
$\frac{(\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))) - \Sigma(\sqrt{4})}{4}$		$\sqrt{(\sqrt{4} \times (4!!)!) + ((\Gamma(4))!!)^{\sqrt{4}}}$	
289	$\frac{4!!}{4\%} + asin(\Gamma(\sqrt{4})) - \Gamma(\sqrt{4})$	$\frac{\Gamma(\Gamma(4))}{.4} - !4 - \sqrt{4}$	$(4!!)!! - alog(\sqrt{4}) + \frac{\sqrt{4}}{.4}$
	$\left(\left(\frac{\sqrt{4}}{.4} \right) !! + \sqrt{4} \right)^{\sqrt{4}}$	$\frac{\Gamma(\Gamma(4)) + 4!! + .4}{.4}$	$\frac{\Gamma(\Gamma(4)) - 4 - .4}{.4}$
	$\frac{(4!)^{\sqrt{4}} + \sqrt{4}}{\sqrt{4}}$	$\frac{\frac{(4!!)!!}{.4} + \Sigma(\sqrt{4})}{\Sigma(\sqrt{4})}$	
$\frac{\Sigma((\Gamma(4))!!) - 4! + 4}{4}$		$\frac{\Sigma(asec(\sqrt{4})) - (4! \times 4)}{\Gamma(4)}$	
290	$\frac{4!!}{4\%} + \frac{.4}{.4\%}$	$\frac{(4! \times 4!) + 4}{\sqrt{4}}$	$4^4 + 4! + \Sigma(4)$
	$\frac{\Gamma(\Gamma(4))}{.4} - \frac{4}{.4}$	$\frac{4!! + 4 - .4}{4\%}$	$alog(\sqrt{4}) + (4 \times 4)$
	$\Sigma(4!) - 4 - 4 - \sqrt{4}$	$(4! + E(4)) \times (4!! + \sqrt{4})$	$E(4) \times \left(\frac{4!}{.4} + 4 \right)$

SECTION III — SOLUTIONS 201–300

290 (cont)	$(4!!)!! - alog(\sqrt{4}) + 4 + \sqrt{4}$ $\sqrt{((4!)!!!!!!)!!}^{\sqrt{4}} + \Sigma((\Gamma(4))!!) - (\Sigma(4))!!!!!!$	$(4!!)!! - \Gamma(\Gamma(4)) + 4! + \sqrt{4}$
291	$\frac{4!!}{4\%} + alog(\sqrt{4}) - !4$	$\Sigma(4!) - 4 - 4 - \Gamma(\sqrt{4})$
	$(\Sigma(\Gamma(4)) - 4)^{\sqrt{4}} + \sqrt{4}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - atan\left(\frac{4}{4}\right)$
	$(4!!)!! - asin(\Gamma(\sqrt{4})) - (\Gamma(4))!! + atan(\Gamma(\sqrt{4}))$	$\frac{\Gamma(\Gamma(4))}{.4} - \frac{4}{.4}$
	$\frac{\sqrt{.4}}{.4\%} + \Sigma(\Sigma(\Gamma(4))) - asin(\Gamma(\sqrt{4}))$	$MOD\left(\Gamma(4!!), \left(\frac{4}{.4}\right)!!\right) - 4!$
292	$\frac{4!!}{4\%} + alog(\sqrt{4}) - 4!!$	$(4!!)!! - \Gamma(\Gamma(4)) + 4! + 4$
	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - 44$	$\frac{(4! \times 4!) + 4!!}{\sqrt{4}}$
	$\frac{\Gamma(\Gamma(4))}{.4} - 4 - 4$	$\sqrt{4} \times ((4! \times \Gamma(4)) + \sqrt{4})$
293	$\frac{4!!}{4\%} + asin(\Gamma(\sqrt{4})) + \Sigma(\sqrt{4})$	$(E(4) \times (\Sigma(\Sigma(4)) + 4)) - \sqrt{4}$
	$(\Sigma(\Gamma(4)) - 4)^{\sqrt{4}} + 4$	$(4!!)!! - \frac{4}{.4\%} - \Gamma(\sqrt{4})$
	$\Sigma(\Sigma(\Gamma(4))) + 4^{\Sigma(\sqrt{4})} - \sqrt{4}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - atan(\Gamma(\sqrt{4})) + \sqrt{4}$
	$\sqrt{(\Sigma(\Gamma(4)) \times \Sigma(asin(\Gamma(\sqrt{4})))) - ((\Gamma(4))!!)!!!!!! - \sqrt{4}} - \sqrt{4}$	
294	$\frac{4!!}{4\%} + asin(\Gamma(\sqrt{4})) + 4$	$\Sigma(4!) - 4 - 4 + \sqrt{4}$
	$(4!!)!! - \frac{4}{4\%} + \Sigma(4)$	$\frac{((4!!)!! - (\Gamma(4))!!)^{\sqrt{4}}}{(4!!)!!}$
	$(4 + 4)!! - asin\left(\frac{4}{4}\right)$	$\frac{\Gamma(\Gamma(4))}{.4} - 4 - \sqrt{4}$
	$\frac{\sqrt{.4}}{.4\%} + (4! \times \Gamma(4))$	$(\Sigma(\Gamma(4)) - 4)^{\sqrt{4}} + E(4)$
$\left(atan(\Gamma(\sqrt{4})) + 4\right) \times \frac{4!}{4}$		

SECTION III — SOLUTIONS 201–300

295	$\frac{4!!}{4\%} + atan(\Gamma(\sqrt{4})) + (\Sigma(4))!!!!$	$(\Sigma(\Gamma(4)) - 4)^{\sqrt{4}} + \Gamma(4)$	
	$\frac{\Gamma(\Gamma(4))}{.4} - \frac{\sqrt{4}}{.4}$	$\frac{\Sigma((\Gamma(4))!!)}{4} + \frac{4}{4}$	$\frac{\frac{4!}{4\%} - \Sigma(4)}{\sqrt{4}}$
	$(\Sigma(\Sigma(4)) + 4) \times \frac{\sqrt{4}}{.4}$	$\Sigma(4!) - 4 - \frac{4}{4}$	$\Sigma(\Sigma(4 + \sqrt{4})) + 4!!^{\sqrt{4}}$
	$\sqrt{\sqrt{(4!! - \Gamma(\sqrt{4}))^{4!}} - (\Gamma(4))!!}$		$\frac{(4!!)!}{\Gamma(\Gamma(4))} - atan(\Gamma(\sqrt{4})) + 4$
296	$\frac{4!!}{4\%} + (4! \times 4)$	$\Sigma(4!) - 4 - 4 + 4$	$4^4 + \Sigma(4!!) + 4$
	$4^4 + \sqrt{\frac{(4!!)!!}{(4!) \%}}$	$\frac{\frac{4!}{4\%} - 4!!}{\sqrt{4}}$	$\sqrt{\frac{.4}{.4\% \%}} \times \Sigma(4) - 4$
	$\frac{\Gamma(\Gamma(4))}{.4} - \sqrt{4} - \sqrt{4}$	$\frac{\Sigma((\Gamma(4))!!)}{4} + \frac{4}{\sqrt{4}}$	$4 \times (C(4!!, 4) + 4)$
	$\frac{4!!}{4\%} + alog(\sqrt{4}) - \Sigma(\sqrt{4})$	$4^4 + atan(\Gamma(\sqrt{4})) - 4$	$\frac{\frac{4!}{4\%} - \Gamma(4)}{\sqrt{4}}$
297	$(\Sigma(\Gamma(4)) - 4)^{\sqrt{4}} + 4!!$	$(acsc(\sqrt{4}) + \Sigma(\sqrt{4})) \times \frac{4}{.4}$	$\Sigma(4!) - 4 + \frac{4}{4}$
	$\frac{\Gamma(\Gamma(4))}{.4} - \sqrt{\frac{4}{.4}}$	$\frac{\Sigma((\Gamma(4))!!)}{4} + \sqrt{\frac{4}{.4}}$	$(!4 + \sqrt{4}) \times (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$
	$\Sigma(\Sigma(4 + \sqrt{4})) + \Sigma(4!! + \Sigma(\sqrt{4}))$		$\Sigma(\Sigma(\Gamma(4))) + 4^{\Sigma(\sqrt{4})} + \sqrt{4}$
	$\frac{4!!}{4\%} + alog(\sqrt{4}) - \sqrt{4}$	$4^4 + \Sigma(4!!) + \Gamma(4)$	$\frac{(\Gamma(4))!!}{4\%} - 4!!$
298	$\Sigma(4!) - \frac{4 + 4}{4}$	$\frac{(\Gamma(4))!!}{.4 \times .4} + \Sigma(\Sigma(4))$	$\frac{\Sigma((4 + \sqrt{4})!!)}{4} + 4$
	$\sqrt{\frac{.4}{.4\% \%}} \times \Sigma(4) - \sqrt{4}$		$\sqrt{4} \times (\Gamma(\Gamma(4)) + 4! + E(4))$

SECTION III — SOLUTIONS 201–300

298 (cont)	$\sqrt{\sqrt{\left(4!! - \Gamma(\sqrt{4})\right)^{4!}} - \operatorname{atan}\left(\Gamma(\sqrt{4})\right)}$	$\frac{\operatorname{atan}\left(-\Gamma(\sqrt{4})\right) - \Sigma(\sqrt{4}) + .\bar{4}}{.\bar{4}}$	
	$\sqrt{\left((4!!)!! \times (\sqrt{4} + \sqrt{4\%})\right) + \operatorname{alog}(\sqrt{4})}$	$\left(\Sigma(\Sigma(4)) \times \Gamma(4)\right) - \sqrt[4]{4}$	
299	$\frac{4!!}{4\%} + \operatorname{alog}(\sqrt{4}) - \Gamma(\sqrt{4})$	$\Sigma(4!) - \sqrt{4} + \frac{4}{4}$	$(\Sigma(\Gamma(4)) - 4)^{\sqrt{4}} + \Sigma(4)$
	$\frac{\frac{(\Gamma(4))!!}{4\%} - 4}{4}$	$4^4 + \operatorname{atan}\left(\Gamma(\sqrt{4})\right) - \sqrt{4}$	$\frac{\Sigma\left((\Gamma(4))!!\right)}{4} + \frac{\sqrt{4}}{4}$
	$(4!!)!! - \operatorname{atan}\left(\Gamma(\sqrt{4})\right) - \sqrt{\frac{(4!!)!!}{(4!) \%}}$	$\Sigma\left(\Sigma(4 + \sqrt{4})\right) + \operatorname{asec}(\sqrt{4}) + 4!!$	
	$\Sigma\left(\Sigma(\Gamma(4))\right) + 4^{\Sigma(\sqrt{4})} + 4$	$(4!!)!! - \Sigma(\Sigma(4)) - 4! - \Gamma(4)$	
300	$\frac{4!!}{4\%} + \frac{4}{4\%}$	$4^4 + 44$	$\frac{4! + 4!}{.4 \times .4}$
	$\Sigma(4!) \times \frac{4}{4} \times \Gamma(\sqrt{4})$	$\frac{4!}{.4} \times \frac{\sqrt{4}}{.4}$	$(4! \times \Sigma(4)) + \frac{4!}{.4}$
	$\frac{4}{4\%} \times \sqrt{\frac{4}{.4}}$	$\frac{4}{.4} \times \sqrt{\frac{4}{.4\%}}$	$\sqrt{\frac{.4}{.4\%}} \times \frac{4}{.4}$
	$\left(\frac{4!!}{.4}\right)^{\sqrt{4}} - 4!$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - \frac{4!}{\sqrt{.4}}$	$\frac{\Gamma(4!!)}{4} - \frac{(4!!)!!}{.4}$
	$\frac{\Gamma(4)}{4\%} \times \frac{.4}{\sqrt{4}}$	$(4!!)!! - (\Sigma(4 + \sqrt{4}) \times 4)$	$P(\Gamma(4), 4) - \frac{4!}{.4}$

Solutions History 201–300

<i>n</i>	1993	1998	2012	2021
201	-	3	5	6
202	-	3	5	8
203	-	1	3	6
204	-	2	5	16
205	-	1	3	9
206	-	1	3	11
207	-	2	3	6
208	-	2	5	11
209	-	1	3	6
210	-	1	6	8
211	-	1	4	6
212	-	3	6	12
213	-	1	5	5
214	-	2	6	9
215	-	1	6	9
216	-	2	7	9
217	-	4	5	9
218	-	1	4	6
219	-	1	4	6
220	-	3	4	6
221	-	1	7	8
222	-	1	4	5
223	-	1	5	8
224	-	3	5	8
225	-	3	5	6
226	-	3	5	6
227	-	1	6	6
228	-	1	4	6
229	-	1	4	6
230	-	2	6	6
231	-	1	6	9
232	-	1	3	6
233	-	1	3	6
234	-	1	3	5
235	-	2	6	9
236	-	3	13	14
237	-	1	4	5
238	-	2	3	6
239	-	2	3	6
240	-	5	9	12

<i>n</i>	1993	1998	2012	2021
241	-	2	4	6
242	-	2	3	6
243	-	2	3	8
244	-	5	7	9
245	-	2	3	8
246	-	2	3	5
247	-	1	3	5
248	-	2	5	6
249	-	1	3	6
250	-	3	6	9
251	-	2	4	6
252	-	3	4	9
253	-	1	5	6
254	-	2	3	6
255	-	2	3	6
256	-	3	6	9
257	-	1	3	6
258	-	2	3	6
259	-	1	3	6
260	-	2	5	6
261	-	2	5	8
262	-	2	4	8
263	-	1	4	8
264	-	6	6	12
265	-	2	4	5
266	-	1	3	7
267	-	2	4	8
268	-	2	4	8
269	-	1	5	8
270	-	3	6	10
271	-	1	5	7
272	-	1	6	11
273	-	1	3	5
274	-	2	3	8
275	-	1	4	11
276	-	1	5	11
277	-	2	4	5
278	-	1	3	5
279	-	2	4	8
280	-	2	5	12

<i>n</i>	1993	1998	2012	2021
281	-	1	4	6
282	-	1	3	5
283	-	1	3	5
284	-	5	5	10
285	-	1	3	10
286	-	2	3	7
287	-	2	3	6
288	-	3	9	14
289	-	3	5	10
290	-	3	5	12
291	-	2	6	10
292	-	2	6	9
293	-	2	4	8
294	-	3	6	12
295	-	1	5	10
296	-	2	6	9
297	-	1	8	11
298	-	1	5	12
299	-	1	6	10
300	-	4	12	15
Σ	0	190	469	797

Note: Solutions for 201-300 were not included in Version 1.00 (1993)

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SECTION IV — SOLUTIONS 301–400

301	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4}{4}$	$4^4 + atan\left(\frac{4}{4}\right)$	$\frac{\Gamma(4 + \sqrt{4}) + .4}{.4}$
	$\frac{4!}{.4} + \sqrt{4\%}$ $\sqrt{4\%}$	$\frac{4!!}{.4} + \sqrt{.4\%}$ $\sqrt{.4\%}$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + \Gamma(\sqrt{4})$
	$\sqrt{\frac{(4!!)!}{.4}} - \Gamma(\Gamma(4)) + \Gamma(\sqrt{4})$		$(E(4) \times asec(\sqrt{4})) + \frac{4}{4}$
302	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4}{\sqrt{4}}$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + \sqrt{4}$	$(.4 \times \Sigma(\Sigma(4!!))) + \frac{4!}{4}$
	$\sqrt{\frac{(4!!)!}{.4} + (4!!)!! + alog(\sqrt{4})}$		$(E(4) \times asec(\sqrt{4})) + \frac{4}{\sqrt{4}}$
303	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!}{4!!}$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + \Sigma(\sqrt{4})$	$\Sigma(\sqrt{4}) \times \left(alog(\sqrt{4}) + \frac{4}{4}\right)$
	$(\Sigma(\Sigma(4)) \times \Gamma(4)) - (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$		$\frac{4!}{4!!} \times (alog(\sqrt{4}) + \Gamma(\sqrt{4}))$
304	$\frac{\Gamma(\Gamma(4))}{.4} + \sqrt{4 \times 4}$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + 4$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - \sqrt[4]{4}$
	$\sqrt{(\Sigma(\Gamma(4)) - \sqrt{4})^{\sqrt{4}} \times 4^4}$	$4 \times (\sqrt{4} \times \Sigma(4!!) + 4)$	$\frac{4!}{4\%} + \frac{4!!}{\sqrt{4}}$
305	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{\sqrt{4}}{.4}$	$\frac{4!!}{4\%} + \frac{(4!!)!}{(4!!)!!}$	$E(4) \times \left(asec(\sqrt{4}) + \frac{4}{4}\right)$
	$\frac{(4!!)! - asec(\sqrt{4})}{(\Sigma(4))!!!! + (\Gamma(4))!!!!}$	$\Sigma(\Sigma(\Gamma(4))) + asec(\sqrt{4}) + \Sigma(4) + 4$	
306	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!}{4}$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + \Gamma(4)$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - \frac{\Gamma(\Gamma(4))}{4}$
	$!4 \times \left(4 + \sqrt{\frac{4}{.4\%}}\right)$	$\frac{4}{\sqrt{4}} \times ((4!!)!! - \Sigma(\Sigma(\Gamma(4))))$	
307	$\frac{\Gamma(\Gamma(4))}{.4} + 4!! - \Gamma(\sqrt{4})$	$\frac{\Sigma(4 \times 4) + .4}{.4}$	$\frac{\Sigma((\Gamma(4))!!) + (\Gamma(4))!! + 4}{4}$
	$(4!!)!! - atan(\Gamma(\sqrt{4})) - \sqrt[4]{4}$		$\sqrt{4} \times ((4!!)!! - \Sigma(\Sigma(\Gamma(4)))) + \Gamma(\sqrt{4})$

SECTION IV — SOLUTIONS 301–400

308	$\frac{\Gamma(\Gamma(4))}{.4} + 4 + 4$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + 4!!$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - 4! - 4$
	$\frac{\Sigma((\Gamma(4))!!) + (\Gamma(4))!! + 4!!}{4}$		$(E(4) \times (-E(\Gamma(4)))) + \frac{4!}{4!!}$
309	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4}{.4}$	$((\Gamma(4))!!!)^{\sqrt{4}} - \Sigma\left(\frac{\sqrt{4}}{.4}\right)$	$(!4 + 4!!)^{\sqrt{4}} + (\Sigma(4))!!!!!!$
	$(4!!)!! - atan(\Gamma(\sqrt{4})) - \frac{\Gamma(\Gamma(4))}{4}$		$(E(4) \times (-E(4 + \sqrt{4}))) + 4$
310	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4}{.4}$	$\frac{\Gamma(4 + \sqrt{4})}{.4} + \Sigma(4)$	$4^4 + \frac{4!}{.4}$
	$\frac{4!! + 4.4}{4\%}$	$\frac{4}{.4} \times (\Sigma(\Gamma(4)) + \Sigma(4))$	$(!4 + 4!!)^{\sqrt{4}} + \Sigma(\Gamma(4))$
311	$\frac{\Gamma(\Gamma(4))}{.4} + 4!! + \Sigma(\sqrt{4})$	$\frac{alog(\sqrt{4}) + 4! + .4}{.4}$	$!(\Gamma(4)) + 44 + \sqrt{4}$
	$\Sigma(\Sigma(4 + \sqrt{4})) + (\Sigma(4) \times 4!!)$		$\Sigma(acsc(\sqrt{4})) - ((\Gamma(4))!!!)!!!!!! - \frac{4}{.4}$
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) - (4!!)!!!!!! + \Sigma(\Sigma(4!!)) - (\Sigma(4))!!!!!!}$		
	$(4!!)!! - atan(\Gamma(\sqrt{4})) - 4! - 4$		$(E(4) \times (-E(4 + \sqrt{4}))) + \Gamma(4)$
312	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!}{\sqrt{4}}$	$\frac{\Gamma(\Gamma(4))}{.4} + 4!! + 4$	$\frac{4! \times 4!}{\sqrt{4}} + 4!$
	$C(4!, \sqrt{4}) + \frac{4!}{\sqrt{.4}}$	$(.4 \times \Sigma(\Sigma(4!!))) + 4^{\sqrt{4}}$	$(4!!)!! - \frac{4! \times 4!}{4!!}$
	$(4 + 4) \cdot (acsc(\sqrt{4}) + !4)$		$\sqrt{(!4) - (4!!)!!!!!! - \Gamma(4!!)} - 4!!$
313	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4) + \Sigma(\sqrt{4})$	$\left(\Sigma(\sqrt{4}) \times \frac{(4!!)!}{(4!!)!!}\right) - \sqrt{4}$	$(!4 + 4!!)^{\sqrt{4}} + 4!$
	$\Sigma(\Sigma(4 + \sqrt{4})) + asin(\Gamma(\sqrt{4})) - 4!!$		$(E(4) \times (-E(4 + \sqrt{4}))) + 4!!$
314	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4) + 4$	$\frac{\Gamma(\Gamma(4))}{.4} + 44$	$\frac{\Gamma(\Gamma(4))}{.4} + 4!! + \Gamma(4)$
	$((\Gamma(4))!!!)^{\sqrt{4}} - \frac{4}{.4}$	$\frac{\Sigma(\Sigma(4!!)) - \Sigma(4!!) - \sqrt{4}}{\sqrt{4}}$	$\frac{\Gamma(4!!)}{4 \times 4} - \Gamma(\sqrt{4})$

SECTION IV — SOLUTIONS 301–400

315	$\frac{\Gamma(\Gamma(4))}{.4} + \left(\frac{\sqrt{4}}{.4}\right)!!$	$\frac{\Gamma(\Gamma(4))}{.4} + atan\left(\frac{4}{4}\right)$	$\frac{\Gamma(4+4)}{4 \times 4}$
	$\left(\Sigma(\Sigma(4)) \times \Sigma(\sqrt{4})\right) + \frac{\sqrt{.4}}{.4\%}$		$\Sigma(4! - 4) + \Sigma(\Sigma(4) + 4)$
316	$\frac{\Gamma(\Gamma(4))}{.4} + 4^{\sqrt{4}}$	$\frac{\Gamma(\Gamma(4))}{.4} + 4!! + 4!!$	$4^4 + \frac{4!}{.4}$
	$(4!!)!! - 4!! - \frac{4!}{.4}$	$P\left(4!!, \Sigma(\sqrt{4})\right) - 4! + 4$	$\frac{\Gamma(4!!)}{4 \times 4} + \Gamma(\sqrt{4})$
317	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Gamma(4)) - 4$	$(E(4) \times \Sigma(\Gamma(4)) \times \Sigma(\sqrt{4})) + \sqrt{4}$	$\frac{\Gamma(4!!)}{4 \times 4} + \sqrt{4}$
	$(4!!)!! - atan\left(\Gamma(\sqrt{4})\right) - 4! + \sqrt{4}$	$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4)) - 4! - 4$	
318	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!!}{.4}$	$\frac{\Gamma(\Gamma(4))}{.4} + 4! + 4!$	$\frac{\Sigma(\Sigma(4!!)) - \frac{\Gamma(\Gamma(4))}{4}}{\sqrt{4}}$
	$\frac{\Sigma(\Gamma(4))}{4\%} - \Sigma(\Sigma(\Gamma(4))) + 4!$		$(E(4) \times \Sigma(\Gamma(4)) \times \Sigma(\sqrt{4})) + \Sigma(\sqrt{4})$
319	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Gamma(4)) - \sqrt{4}$	$!4 \times (\Sigma(4!!) - \Gamma(\sqrt{4}) + .\bar{4})$	$\left((\Gamma(4))!!!\right)^{\sqrt{4}} - \frac{\sqrt{4}}{.4}$
	$(4!!)!! - atan\left(\Gamma(\sqrt{4})\right) - \frac{4!!}{.4}$		$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4)) - 4! - \sqrt{4}$
320	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!!}{.4}$	$(4 \times \Sigma(\Sigma(4))) + \frac{4}{4\%}$	$(\Sigma(\Sigma(4)) \times \Gamma(4)) - \frac{4}{.4}$
	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - 4^{\sqrt{4}}$	$\sqrt[4]{4} \times \frac{4}{.4}$	$\left((\Gamma(4))!!!\right)^{\sqrt{4}} - \frac{4!!}{\sqrt{4}}$
321	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4 + \sqrt{4})$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - \left(\frac{\sqrt{4}}{.4}\right)!$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{.4}{.4\%}$
	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} + .4$	$\sqrt{\Sigma\left(\Sigma(acsc(\sqrt{4})) - ((\Gamma(4))!!!)\right)!!!! + \Sigma(4!) + (\Gamma(4))!!!!}$	
322	$\frac{\Gamma(\Gamma(4))}{.4} + 4! - \sqrt{4}$	$(\Sigma(\Sigma(4)) \times \Gamma(4)) - 4 - 4$	$(4!!)!! - \frac{4!}{.4} - \sqrt{4}$
	$\frac{(\Gamma(4))^4 - 4 - 4}{4}$	$\sqrt{alog(E(4)) + \Sigma((4!!)!!!) + (4!!)!! + asec(\sqrt{4})}$	

SECTION IV — SOLUTIONS 301–400

323	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Gamma(4)) + \sqrt{4}$	$\frac{\left(\frac{4}{.4}\right)!! + 4!}{\Sigma(\sqrt{4})}$	$\frac{(\Gamma(4))^4 - 4}{4}$
	$(4!!)!! - atan(\Gamma(\sqrt{4})) - 4^{\sqrt{4}}$	$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4)) - 4! + \sqrt{4}$	
324	$\frac{\Gamma(\Gamma(4))}{.4} + (\sqrt{4} + \sqrt{4})!$	$\frac{(4 + \sqrt{4})^4}{4}$	$(\Sigma(4) + 4 + 4)^{\sqrt{4}}$
	$\frac{4^{\Sigma(\sqrt{4})}}{.4 \times .4}$	$\sqrt{alog(E(4)) + \Gamma(4!!) - 4!!^{\sqrt{4}}}$	
325	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{\Gamma(\sqrt{4})}{4\%}$	$\frac{(\Gamma(4))^4 + 4}{4}$	$\frac{(4! \times \Gamma(4)) + .\bar{4}}{.4}$
	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} + \sqrt{4}$	$\frac{\sqrt{4}}{.4} \times (\Sigma(\Sigma(4)) + \Sigma(4))$	$\frac{\Sigma(\Sigma(4!!)) - 4^{\sqrt{4}}}{\sqrt{4}}$
		$\sqrt{alog(E(4)) + ((\Gamma(4))!!)!!!! + \frac{4}{.4}}$	
326		$\sqrt{\frac{\Sigma(asin(\Gamma(\sqrt{4})))}{4\%} + \Sigma((4!!)!!!) + \Sigma(4)}$	
		$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) - (4!)!!!!!! + ((\Gamma(4))!!!)!!!!!! - 4!!}$	
	$\frac{\Gamma(\Gamma(4))}{.4} + 4! + \sqrt{4}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - \frac{4}{.4}$	$\frac{\Sigma(\Sigma(4!!)) - \Sigma(4) - 4}{\sqrt{4}}$
327	$\sqrt{4} \times (\Sigma((\Gamma(4))!!!) - 4 - 4)$	$\frac{(4!)!!!!!! - \sqrt{(4!!)!! \div (4!) \%}}{4}$	
	$\frac{((\Gamma(4))!!!)!!!! + 4 + 4}{4}$	$\sqrt{alog(E(4)) + ((\Gamma(4))!!!)!!!! + \Sigma(\Sigma(4!!)) - \Gamma(4)}$	
	$\frac{\Gamma(\Gamma(4))}{.4} + (\Sigma(\sqrt{4}))^{\Sigma(\sqrt{4})}$	$\Sigma(\sqrt{4}) \times \left(\frac{(4!!)!}{(4!!)!!} + 4 \right)$	$\frac{\Sigma(\Sigma(4!!)) - 4!! - 4}{\sqrt{4}}$
327	$\frac{\Sigma(\Sigma(\Gamma(4))) - alog(\sqrt{4}) - \sqrt{4\%}}{.4}$	$\frac{((\Gamma(4))!!!)!!!! + 4!! + 4}{4}$	
	$(4!!)!! - atan(\Gamma(\sqrt{4})) - \frac{4!}{\sqrt{4}}$	$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4)) - \frac{4!!}{.4}$	

SECTION IV — SOLUTIONS 301–400

	$\frac{\Gamma(\Gamma(4))}{.4} + 4! + 4$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - 4 - 4$	$(4 + 4)!! - \frac{(4!!)!}{(\Gamma(4))!}$
	$(\Sigma(4) + 4!!)^{\sqrt{4}} + 4$	$\sqrt{4} \times (alog(\sqrt{4}) + 4!!^{\sqrt{4}})$	$\frac{((\Gamma(4))!!!)!!!!!! + 4!! + 4!!}{4}$
328	$\sqrt{alog(E(4)) + \Sigma(\Gamma(\Gamma(4))) + \Sigma(4!) + 4!}$		
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) - (\Gamma(4))! - atan(\Gamma(\sqrt{4})) + 4}$		
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) - (\Sigma(\Gamma(4)))!!!!!! + \frac{\sqrt{4}}{.4}}$		
	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Gamma(4)) + 4!!$	$(\Sigma(\Sigma(4)) \times \Gamma(4)) - \frac{4}{4}$	$!(\Gamma(4)) + (4 + 4)^{\sqrt{4}}$
329	$4 + \sqrt{alog(E(4)) + ((\Gamma(4))!!!)!!!!!! + !4}$	$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4)) - (4 \times 4)$	
	$(4!!)!! - atan(\Gamma(\sqrt{4})) - \frac{4}{.4}$	$\Sigma(\Sigma(4 + \sqrt{4})) + alog(\sqrt{4}) - \sqrt{4}$	
	$\frac{\Gamma(\Gamma(4))}{.4} + asin\left(\frac{\sqrt{4}}{4}\right)$	$\frac{\frac{(4!!)!!}{\Sigma(\sqrt{4})} + 4}{.4}$	$\frac{4.4}{4} \times \Sigma(4!)$
330	$(acsc(\sqrt{4}) + \Sigma(\sqrt{4})) \times \frac{4}{.4}$	$\Sigma(\sqrt{4}) \times \left(\frac{4}{4\%} + \Sigma(4)\right)$	$\frac{\Sigma(\Sigma(4!!)) - 4 - \sqrt{4}}{\sqrt{4}}$
	$\sqrt{alog(E(4)) + \frac{.4}{.4\% \%} - alog(\sqrt{4})}$		
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + \Sigma(acsc(\sqrt{4})) + asin\left(\frac{4}{4}\right)}$		
	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Gamma(4)) + \Sigma(4)$	$(\Sigma(\Sigma(4)) \times \Gamma(4)) + \frac{4}{4}$	$\frac{\Sigma(\Sigma(4!!)) - \sqrt{4} - \sqrt{4}}{\sqrt{4}}$
331	$\frac{atan(-\Gamma(\sqrt{4})) - \Sigma(\sqrt{4}) + .4}{.4}$	$(4!!)!! - atan(\Gamma(\sqrt{4})) - 4 - 4$	
	$\Gamma(4) + \sqrt{alog(E(4)) + ((\Gamma(4))!!!)!!!!!! + !4}$		
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + \Sigma((\Gamma(4))!!) + (4 \times \Sigma(4))}$		

SECTION IV — SOLUTIONS 301–400

332	$\frac{\Gamma(\Gamma(4))}{.4} + 4! + 4!!$	$\Sigma(4!) + (4 \times 4 \times \sqrt{4})$	$(4!!)!! - 4! - 4! - 4$
	$(\Sigma(\Sigma(4)) \times \Gamma(4)) + \frac{4}{\sqrt{4}}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - \frac{4!!}{\sqrt{4}}$	$\Sigma(\Sigma(4!!)) - (4!!)!! + \frac{\sqrt{4}}{4\%}$
333	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) - \Sigma(\sqrt{4})$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - \frac{(\Gamma(4))!!}{.4}$	$\frac{\frac{4}{.4\%} - \Gamma(\sqrt{4})}{\Sigma(\sqrt{4})}$
	$(\Sigma(\Sigma(4)) \times \Gamma(4)) + \frac{4!}{4!!}$	$\frac{\Sigma(\Sigma(4+4))}{4 - \sqrt{4}}$	$(\Sigma(4!!) + \Gamma(\sqrt{4})) \times \frac{4}{.4}$
334	$\frac{\Gamma(\Gamma(4))}{.4} + 4! + \Sigma(4)$	$\left(\Sigma\left(\frac{4}{.4}\right) \times \Gamma(4)\right) + 4$	$(4+4)!! - \frac{\sqrt{4}}{4\%}$
	$\sqrt{!(!4) - (\Sigma(\Gamma(4)))!!!! + \Sigma(\Sigma(\Gamma(4))) + E(4)}$		
335	$\sqrt{\Sigma(\Sigma(4!!)) + alog(\Sigma(\sqrt{4})) + \Gamma(\sqrt{4})}$		
	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) - \Gamma(\sqrt{4})$	$\frac{(4!!)!!}{\Sigma(\sqrt{4})} + \Gamma(4)$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} - \frac{4}{4}$
	$\frac{(\Gamma(4))! - \Sigma(4)!!!!!! - acsc(\sqrt{4})}{\sqrt{4}}$	$\frac{\Sigma(\Sigma(4+4)) + 4}{\sqrt{4}}$	
336	$(4!!)!! - atan\left(\frac{4}{4}\right) - 4$	$\frac{\sqrt{4}}{.4} \times (\Sigma(\Sigma(4)) + (\Gamma(4))!!!!)$	
	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!}{\sqrt{.4}}$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{(4!!)!}{(4!!)!!}$	$(4 \times alog(\sqrt{4})) - 4^{\Sigma(\sqrt{4})}$
	$\frac{\Sigma(\Sigma(4+4)) + \Gamma(4)}{\sqrt{4}}$	$\Sigma(4 + \sqrt{4}) \times 4^{\sqrt{4}}$	$\frac{(4!!)!!!!!!}{4} \times \frac{4}{4}$
	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + 4 - 4$	$P((4+4), 4) \times \sqrt{4\%}$	$\frac{\frac{4}{.4\%} + 4!!}{\Sigma(\sqrt{4})}$

SECTION IV — SOLUTIONS 301–400

337	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) + \Gamma(\sqrt{4})$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + \frac{4}{4}$	$\Sigma(4!) + 4! + \Sigma(4) + \Sigma(\sqrt{4})$
	$\frac{\Sigma(\Sigma(4!!)) + 4 + 4}{\sqrt{4}}$	$\frac{\Sigma(\tan(4/4)) - 4!}{\Sigma(\sqrt{4})}$	$\frac{(4!)!!!!!!!}{4} + \frac{4}{4}$
	$\Sigma(acsc(\sqrt{4})) - \Gamma(\Gamma(4)) - 4 - 4$		$\frac{(\Sigma(\Gamma(4)))!!!!!! + \Sigma(4!) + (\Sigma(4))!!!!!!}{E(4)}$
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + \Gamma(4!!) + ((\Gamma(4))!!!!)!!!! + (4!!)!!!!!!}$		
338	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) + \sqrt{4}$	$\frac{(4! + \sqrt{4})^{\sqrt{4}}}{\sqrt{4}}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + \frac{4}{\sqrt{4}}$
	$(4!!)!! - 44 - \sqrt{4}$	$\frac{\Sigma(\Sigma(4!!)) + \Gamma(4) + 4}{\sqrt{4}}$	$\sqrt{4} \times \left(\Sigma\left(\left(\frac{4!}{4}\right)!!\right) - \sqrt{4} \right)$
339	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) + \Sigma(\sqrt{4})$	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + ((\Gamma(4))!!!)!!!! + \frac{(4!!)!!}{.4}}$	
	$(4!!)!! - \tan(\Gamma(\sqrt{4})) + 4 - 4$	$\Sigma(\Sigma(\Gamma(4))) + alog(\sqrt{4}) + 4 + 4$	
340	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) + 4$	$(4 \times alog(\sqrt{4})) - \frac{4!}{.4}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + \sqrt{4} + \sqrt{4}$
	$\frac{\frac{(4!!)!!}{\Sigma(\sqrt{4})} + 4!!}{.4}$	$\frac{4}{.4} \times (4! + \Sigma(4))$	$\frac{4!!}{.4} \times (!4 + 4!!)$
	$\sqrt{alog(E(4)) + alog(4) + ((\Gamma(4))!!!)!!!! - (4!!)!!!!!!}$		
	$\sqrt{alog(E(4)) + (4!)!!!!!! + \Sigma((4!!)!!!) + (\Sigma(4))!!!!}$		
341	$\frac{\Gamma(\Gamma(4))}{.4} + atan(\Gamma(\sqrt{4})) - 4$	$(\Sigma(4) + !4)^{\sqrt{4}} - (\Sigma(4))!!!!!!$	
	$\frac{\Sigma(4 \times 4) + .4}{.4}$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + \frac{\sqrt{4}}{.4}$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - \frac{4}{4\%}$
342	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!!) + \Gamma(4)$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + 4 + \sqrt{4}$	$\frac{\Sigma(\Sigma(4!!)) + !4 + !4}{\sqrt{4}}$
	$\frac{4}{\sqrt{4}} \times \Sigma\left(\left(\frac{4!}{4}\right)!!\right)$	$\frac{(\Sigma(4) \times alog(\sqrt{4})) + \sqrt{4}}{\Sigma(\sqrt{4})}$	$\frac{(4+4)!! + \Sigma(4!)}{\sqrt{4}}$

SECTION IV — SOLUTIONS 301–400

	$\frac{\Gamma(\Gamma(4))}{.4} + \operatorname{atan}(\Gamma(\sqrt{4})) - \sqrt{4}$	$\Sigma(acsc(\sqrt{4})) - (E(4))! - \frac{4}{\sqrt{4}}$
343	$\sqrt{\sqrt{\left(4 + \frac{4!}{4!!}\right)^{4!}}}$	$\left(4 + \frac{4!}{4!!}\right)^{\Sigma(\sqrt{4})}$
344	$\frac{\Gamma(\Gamma(4))}{.4} + 44$	$(E(4) \times \operatorname{asec}(\sqrt{4})) + 44$
	$\Sigma(acsc(\sqrt{4})) - (E(4))! - \frac{4}{4}$	$\sqrt{4} \times \left(alog(\sqrt{4}) + \frac{(4!!)!!!!}{.4}\right)$
345	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma\left(\frac{4}{.4}\right)$	$\frac{\Gamma(\Gamma(4))}{.4} + \operatorname{atan}\left(\frac{4}{4}\right)$
	$\Sigma\left(acsc\left(\frac{4}{\sqrt{4}}\right)\right) - \Gamma(4 + \sqrt{4})$	$\Sigma\left(\frac{\sqrt{4}}{.4}\right) \times (4! - \Gamma(\sqrt{4}))$
	$\sqrt{\Sigma\left(\Sigma\left(acsc(\sqrt{4})\right)\right) + (4!)!!!!!!} - \Sigma\left(\Sigma(\Sigma(4))\right) - (\Sigma(4))!!!!!!$	
	$\sqrt{\Sigma\left(\Sigma\left(acsc(\sqrt{4})\right)\right) + \Sigma\left(\operatorname{atan}(-\Gamma(\sqrt{4}))\right)} + (E(4) \times \Sigma(4!))$	
346	$\frac{\Gamma(\Gamma(4))}{.4} + \operatorname{atan}(\Gamma(\sqrt{4})) + \Gamma(\sqrt{4})$	$\Sigma(acsc(\sqrt{4})) - (E(4))! + \frac{4}{4}$
	$(4 \times alog(\sqrt{4})) - \frac{4!}{.4}$	$\frac{\Sigma(\Sigma(4!!)) + 4! + \sqrt{4}}{\sqrt{4}}$
347	$\frac{\Gamma(\Gamma(4))}{.4} + \operatorname{atan}(\Gamma(\sqrt{4})) + \sqrt{4}$	$\Sigma(acsc(\sqrt{4})) - (E(4))! + \frac{4}{\sqrt{4}}$
	$(4!!)!! - \Sigma(4!!) - \frac{4}{4}$	$\frac{(4!)!!!!!! + 44}{4}$
348	$\frac{\Gamma(\Gamma(4))}{.4} + 4! + 4!$	$\frac{\Sigma(\Sigma(4!!)) + 4! + \Gamma(4)}{\sqrt{4}}$
	$(\Sigma(4!!) \times \Sigma(4)) - \frac{4!}{\sqrt{4}}$	$.4 \times \left(\frac{(4!!)!!}{.4} + \Gamma(4)\right)$
	$\sqrt{4} \times \left(\Sigma((\Gamma(4))!!!) + \Sigma(\sqrt{4})\right)$	$.4 \times \left(((\Gamma(4))!!!)!!!!!! - \frac{4}{.4}\right)$
	$(\Sigma(4))!!! + 4 + \sqrt{\sqrt{4^{4!}}}$	

SECTION IV — SOLUTIONS 301–400

349	$\frac{\Gamma(\Gamma(4))}{.4} + atan(\Gamma(\sqrt{4})) + 4$	$\Sigma(acsc(\sqrt{4})) - \Gamma(4 + \sqrt{4}) + 4$	
	$(4!!)!! - \Sigma(4!!) + \frac{4}{4}$	$\frac{\Sigma(\Sigma(4!!)) + 4! + 4!!}{\sqrt{4}}$	$\frac{((\Gamma(4))!!!))!!!! + \frac{4}{4\%}}{4}$
350	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{\sqrt{4}}{4\%}$	$\frac{(\Gamma(4))! + 4 - 4!}{\sqrt{4}}$	$\frac{\Gamma(4)}{.4\%} - alog(\sqrt{4})$
	$\frac{(4 \times (\Gamma(4))!) - (4!!)!!!}{4!!}$	$\frac{\Gamma(\Gamma(4)) + 4! - 4}{.4}$	$(\Sigma(4!!) - \Gamma(\sqrt{4})) \times \frac{4}{.4}$
	$.4 \times (P(acsc(\sqrt{4}), \sqrt{4}) + E(4))$	$(\Sigma(\Sigma(4)) \times \Gamma(4)) + 4! - 4$	
351	$\sqrt{\Sigma((4!!)!!) + ((\Gamma(4))!!!!)!! + \frac{\Sigma(4)}{.4\%}}$	$\sqrt{!(!4) - alog(4) - alog(\Sigma(\sqrt{4})) + 4}$	
	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) - 4$	$\Sigma(\sqrt{4}) \times \left(\Gamma(\Gamma(4)) - \frac{4!}{4!!}\right)$	$\frac{4}{.4} \times (acsc(\sqrt{4}) + !4)$
	$(4! + \Sigma(\sqrt{4})) \times (!4 + 4)$	$\frac{(\Gamma(4))! - \Sigma(4)!!!!!! + \sqrt{4}}{\sqrt{4}}$	$\frac{\Sigma(atan(\Gamma(\sqrt{4}))) + \frac{4!!}{\sqrt{!4}}}{\sqrt{!4}}$
	$\frac{(\Gamma(4))! + \Sigma(\Sigma(4!!)) + (\Gamma(4))!!!}{4}$	$\frac{(4!)!!!!!! - atan(\Gamma(\sqrt{4})) - !4}{\Gamma(4)}$	
352	$\frac{\Gamma(\Gamma(4)) + (\Sigma(4))!!!!!! + .4}{.4}$	$\frac{\Gamma(\Gamma(4)) + \frac{4!}{\sqrt{.4}}}{.4}$	$P(\Gamma(4), 4) - E(4) - 4$
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + !(4!!) + \Sigma(\Gamma(4)) + \sqrt{4}}$	$\Sigma(\Sigma(4 + \sqrt{4})) + \Gamma(4 + \sqrt{4})$	
	$\frac{\Gamma(\Gamma(4))}{.4} + (\Gamma(4))!! + 4$	$44 \times 4 \times \sqrt{4}$	$\frac{(\Gamma(4))! - \Sigma(4)!!!!!! + 4}{\sqrt{4}}$
353	$.4 \times \left(alog(\Sigma(\sqrt{4})) - \left(\frac{\sqrt{4}}{.4}\right)!\right)$	$.4 \times \left((4!! \times alog(\sqrt{4})) - 4!!\right)$	
	$(\Sigma(\Sigma(4)) \times \Gamma(4)) + 4! - \sqrt{4}$	$\sqrt{4} \times \left(\Sigma((\Gamma(4))!!!) + \frac{\sqrt{4}}{.4}\right)$	
	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) - \sqrt{4}$	$P(\Gamma(4), 4) - E(4) - \sqrt{4}$	$\frac{(\Gamma(4))! - 4! + \Sigma(4)}{\sqrt{4}}$
	$\Sigma(\Sigma(\Gamma(4))) + \Gamma(4 + \sqrt{4}) + \sqrt{4}$	$(4 + 4)!! - \Sigma(\Gamma(4)) - \Sigma(4)$	

SECTION IV — SOLUTIONS 301–400

354	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!}{.4}$	$(4+4)!! - \frac{\Gamma(\Gamma(4))}{4}$	$4^4 + a\log(\sqrt{4}) - \sqrt{4}$
	$.4 \times \left(\frac{(4!!)!!}{.4} + \Sigma(\Gamma(4)) \right)$	$\frac{(\Gamma(4))! - \frac{4!}{\sqrt{4}}}{\sqrt{4}}$	$\frac{\frac{4!!}{.4\%} - acsc(\sqrt{4})}{E(4)}$
	$\sqrt{4} \times \left(\Sigma((\Gamma(4))!!!) + \Gamma(4) \right)$	$\frac{\left(\Sigma(\sqrt{4}) \times \Sigma(acsc(\sqrt{4})) \right) + \Sigma(\Gamma(4))}{4}$	
		$\sqrt{!(!4) - \Sigma(atan(-\Gamma(\sqrt{4}))) + a\log\left(\frac{4!}{4!!}\right)}$	
355	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma\left(\frac{4}{.4}\right)$	$\frac{\sqrt{4}}{.4} \times ((4!!)!!! - !4)$	$\Sigma\left(\Sigma(\Gamma(4))\right) + \left(\frac{\sqrt{4}}{.4}\right)! + 4$
	$\frac{(\Gamma(4))! - \frac{4}{.4}}{\sqrt{4}}$	$\sqrt{\frac{\Gamma(4!!)}{4\%} + \frac{a\log(\sqrt{4})}{4}}$	$\sqrt{\frac{\Sigma(a\log(\sqrt{4}))}{4\%} - \frac{\Gamma(\sqrt{4})}{.4\%}}$
356	$\frac{\Gamma(\Gamma(4))}{.4} + (\Gamma(4))!! + 4!!$	$4^4 + \frac{4}{4\%}$	$(4+4)!! - 4! - 4$
	$.4 \times \left(\frac{4}{.4\%} - \Sigma(4) \right)$	$P(\Gamma(4), 4) - \sqrt{4^{\sqrt{4}}}$	$(4 \times a\log(\sqrt{4})) - 44$
	$.4 \times \left(\frac{4!!}{(\Gamma(\sqrt{4}))\%} + \Gamma(\sqrt{4}) \right)$	$\sqrt{!(!4) - \Sigma(\Gamma(\Gamma(4))) + \frac{\sqrt{4}}{.4\%}}$	
357	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) + \sqrt{4}$	$\Sigma(\sqrt{4}) \times \left(\Gamma(\Gamma(4)) - \frac{4}{4} \right)$	$\frac{(\Gamma(4))! - 4 - \sqrt{4}}{\sqrt{4}}$
	$\Sigma(\Sigma(\Gamma(4))) + \left(\frac{\sqrt{4}}{.4}\right)! + \Gamma(4)$		$(4+4)!! - \left(\Sigma(\sqrt{4})\right)^{\Sigma(\sqrt{4})}$
358	$\frac{\Gamma(\Gamma(4))}{.4} + (\Gamma(4))!! + \Sigma(4)$	$(4+4)!! - 4! - \sqrt{4}$	$.4 \times \left(\frac{4}{.4\%} - E(4) \right)$
	$\frac{\left(\frac{4!}{4}\right)! - 4}{\sqrt{4}}$	$\frac{(\Gamma(4))!}{\sqrt{.4}} - \Gamma(4)$	$\frac{\Sigma(asec(\sqrt{4})) - (4 \times \Sigma(4))}{E(4)}$
	$\frac{\Sigma(\Sigma(4!!))}{\Sigma(\Gamma(4))} - \sqrt{4}$	$\frac{(4 \times (\Gamma(4))!) - (4!!)!!!!!!}{4!!}$	$\frac{\Sigma((4!!)!!!) - \Sigma(4) - 4!!}{!4}$

SECTION IV — SOLUTIONS 301–400

359	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) + 4$	$(\Sigma(4) + !4)^{\sqrt{4}} - \sqrt{4}$	$\frac{\left(\frac{4!}{4}\right)! - \sqrt{4}}{\sqrt{4}}$
	$(4+4)!! - 4! - \Gamma(\sqrt{4})$		$\left(\Sigma(\Gamma(4))\right)^{\sqrt{4}} - \text{asin}\left(\Gamma(\sqrt{4})\right) + 4!!$
360	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4!}{.4}$	$\frac{4^{\Sigma(\sqrt{4})}}{.4 \times .4}$	$(\Sigma(4) + !4)^{\sqrt{4}} - \Gamma(\sqrt{4})$
	$(\sqrt{4} + \sqrt{4}) \times \text{asin}\left(\frac{4}{\sqrt{4} + \sqrt{4}}\right)$	$\left(\frac{4!}{\sqrt{4} + \sqrt{4}}\right) \times \text{asec}(\sqrt{4})$	$(4+4+4) \times \text{acsc}(\sqrt{4})$
	$\left(\Sigma(\Gamma(4))\right)^{\sqrt{4}} - (!4)^{\sqrt{4}}$	$\sqrt{4} \times 4 \times \Sigma\left(\frac{4}{.4}\right)$	$\frac{P\left(\Sigma(4), \frac{4!}{4!!}\right)}{\sqrt{4}}$
361	$\frac{(\Gamma(4))! \times 4!!}{4! \times \sqrt{.4}}$	$\frac{\Sigma\left(\Sigma(\Sigma(4))\right) - \frac{4}{4\%}}{4}$	$\frac{4!!}{4 + \Gamma(\sqrt{4})}$
	$\frac{(4!)!!!!!!}{\sqrt{4} + \sqrt{4} + \sqrt{4}}$	$\frac{4 \times (\Gamma(4))!}{4 + 4}$	$\frac{\Sigma((4+4)!!!)}{E(4) + 4}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \text{asec}(\sqrt{4}) + \Gamma(\sqrt{4})$	$\left(\Sigma(\Gamma(4))\right)^{\sqrt{4}} - (\Sigma(4) \times 4!!)$	
362	$\frac{(4! \times \Gamma(4)) + .4}{.4}$	$\left(\Sigma(4) + \frac{4}{.4}\right)^{\sqrt{4}}$	$\left(\left(\frac{4!}{4}\right)!!!\right)!!!!!! + \frac{4}{4}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \text{asec}(\sqrt{4}) + \sqrt{4}$	$\sqrt{4} \times (alog(\sqrt{4}) + (!4)^{\sqrt{4}})$	
363	$(\Sigma(4) + !4)^{\sqrt{4}} + \Gamma(\sqrt{4})$	$(4+4)!! - 4! + \sqrt{4}$	$\left(\left(\frac{4!}{4}\right)!!!\right)!!!!!! + \frac{4!!}{4}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \text{asec}(\sqrt{4}) + \Sigma(\sqrt{4})$	$\frac{4!}{4!!} \times (alog(\sqrt{4}) + \Sigma(\Gamma(4)))$	
364	$(\Sigma(4) + !4)^{\sqrt{4}} + \sqrt{4}$	$(4+4)!! - 4! + \Sigma(\sqrt{4})$	$\frac{(4! \times \Sigma(4)) + \sqrt{4}}{\sqrt{.4}}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \sqrt{\sqrt{4^{4!}}}$	$\frac{\Gamma(\Gamma(4))}{.4} + 4^{\Sigma(\sqrt{4})}$	$.4 \times \left(\frac{4}{.4\%} + \Sigma(4)\right)$
	$(\Sigma(4) + !4)^{\sqrt{4}} + \Sigma(\sqrt{4})$	$(4+4)!! - 4! + 4$	$4^4 + alog(\sqrt{4}) + 4!!$
	$4 \times \left(asin\left(\Gamma(\sqrt{4})\right) + \frac{4}{4}\right)$	$\frac{(4!)!!!!!! + 4!}{4 + \sqrt{4}}$	$\sqrt{!\left(\frac{4}{.4}\right) - \frac{4}{.4\%}}$

SECTION IV — SOLUTIONS 301–400

365	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) + \Sigma(4)$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - (4!!)!!! + 4$	$4^4 + a \log(\sqrt{4}) + !4$
	$(\Sigma(4) + !4)^{\sqrt{4}} + 4$	$(4 + 4)!! - 4! + E(4)$	$E(4) \times (4!!^{\sqrt{4}} + !4)$
366	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(4!! + \Sigma(\sqrt{4}))$		$(4 + \sqrt{4}) \times (\Sigma(\Sigma(4)) + \Gamma(4))$
	$(\Sigma(4) + !4)^{\sqrt{4}} + E(4)$	$(4 + 4)!! - 4! + \Gamma(4)$	$(\Sigma(4) + !4)^{\sqrt{4}} + E(4)$
367	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) + (\Gamma(4))!!!!$		$(\Sigma(\Gamma(4)))^{\sqrt{4}} - (4!!)!!! + \Gamma(4)$
	$(\Sigma(4) + !4)^{\sqrt{4}} + \Gamma(4)$	$\Sigma(\Sigma(4 + \sqrt{4})) + \Sigma(4^{\sqrt{4}})$	$\frac{(\Gamma(4))! + \Sigma(4) + 4}{\sqrt{4}}$
368	$\frac{\Gamma(\Gamma(4))}{.4} + \text{asec}(\sqrt{4}) + 4!!$		$(\sqrt{.4} \times \Sigma(\Sigma(4!!))) - (4!!)!!! + 4$
	$P(\Gamma(4), 4) + 4 + 4$	$(4 + 4)!! - 4! + 4!!$	$\frac{(4!!)!}{\Gamma(\Gamma(4))} + \sqrt[4]{4}$
369	$\frac{\Gamma(\Gamma(4))}{.4} + \text{atan}(\Gamma(\sqrt{4})) + 4!$		$(\Sigma(\Gamma(4)))^{\sqrt{4}} - (4!!)!!! + 4!!$
	$(\Sigma(4) + !4)^{\sqrt{4}} + 4!!$	$(4 + 4)!! - 4! + !4$	$(4 + 4)!! - \Sigma\left(\frac{\sqrt{4}}{4}\right)$
370	$\frac{\Gamma(\Gamma(4))}{.4} + C(4!!, 4)$	$(\Sigma(4) + !4)^{\sqrt{4}} + !4$	$\frac{\Gamma(\Gamma(4)) + 4! + 4}{.4}$
	$(4 + 4)!! - 4! + \Sigma(4)$		$.4 \times \left((4 \times \Sigma(\Sigma(\Gamma(4)))) + \Gamma(\sqrt{4}) \right)$
371	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Gamma(4)) + (\Sigma(4))!!!!$		$\left(\left(\frac{4}{.4} \right)!!!!!! \right)!!!!!! + \Sigma\left(\left(\frac{4!}{4} \right) !!! \right)$
	$(\Sigma(4) + !4)^{\sqrt{4}} + \Sigma(4)$	$(4!!)!! - 4!! - \frac{\sqrt{4}}{.4}$	$\frac{(\Gamma(4))! + 4! - \sqrt{4}}{\sqrt{4}}$
	$\frac{\text{atan}(\Gamma(\sqrt{4}))}{4\%} - (\Gamma(4))!!!!$		$\sqrt{\Sigma(\Sigma(\text{acsc}(\sqrt{4}))) + \Sigma(\Sigma(\Sigma(\Gamma(4)))) + \frac{\Sigma(4)}{.4\%}}$

SECTION IV — SOLUTIONS 301–400

	$\frac{\Gamma(\Gamma(4))}{.4} + (!4 \times 4!!)$	$(4!!)!! - 4 - 4 - 4$	$\frac{\left(\frac{4!}{4}\right)! + 4!}{\sqrt{4}}$
372	$\frac{\frac{\operatorname{atan}\left(\Gamma(\sqrt{4})\right)}{4\%} - !4}{\sqrt{4}}$	$\frac{\frac{\Gamma(4)}{4\%} - (\Gamma(4))!!!!}{4}$	$\frac{4 \times \Sigma(acsc(\sqrt{4}))}{4 + \Gamma(\sqrt{4})}$
	$((\Gamma(4))!!!)!!!!!! + 4 + 4 + 4$		$(4 \times alog(\sqrt{4})) - 4! - 4$
	$\frac{\Gamma(\Gamma(4))}{.4} + (\Gamma(4))!!! + \Sigma(\Sigma(4))$	$\Sigma(acsc(\sqrt{4})) - asin\left(\frac{4}{4}\right) - \sqrt{4}$	
	$\frac{(\Gamma(4))! + 4! + \sqrt{4}}{\sqrt{4}}$	$\frac{\operatorname{atan}\left(\Gamma(\sqrt{4})\right)}{4\%} - \Gamma(4)$	$\frac{\frac{\Gamma(4)}{4\%} - 4!!}{4}$
373	$\frac{4 \times \Sigma(acsc(\sqrt{4})) + E(4)}{E(4)}$	$\frac{\frac{\Sigma(4)}{4\%} - (\Gamma(4))!!!!}{\Gamma(4)}$	$\frac{(4!)!!!!!! - (4!!)!!! - 4 - 4}{4!!}$
	$\Sigma(\Sigma(\Gamma(4))) + ((\Gamma(4))!!!)!!!!!! - \frac{4}{\sqrt{4}}$		$\sqrt{!(!4) + ((\Gamma(4))!!!)!!!! + !4 + 4!!}$
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + (4!)!!!! - \Sigma(4!) - (\Sigma(4))!!!!!!}$		
	$\frac{\Gamma(\Gamma(4))}{.4} + (4!!)!!! - \Gamma(4)$	$(4 + 4)!! - \frac{4}{.4}$	$(\Sigma(\Sigma(4)) \times \Gamma(4)) + 44$
374	$\frac{(\Gamma(4))! + 4! + 4}{\sqrt{4}}$	$\frac{\Sigma(\Sigma(\Sigma(4))) - 44}{4}$	$\frac{\frac{\Sigma(4)}{4\%} - \Gamma(4)}{\Gamma(4)}$
	$\frac{\frac{\Gamma(\Gamma(4))}{4\%} - 4!!}{4!!}$	$\sqrt{!(!4) + ((4!!)!!!)^{\sqrt{4}} - (\Sigma(4))!!!!!!}$	
	$\sqrt{((\Sigma(4))!!!!!!)!!!! + (4!! \times 4)!!!!!! + alog(\sqrt{4})}$		$.4 \times \left(\left(\frac{4}{4}\right)!! - \Sigma(4) \right)$
	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{\Sigma(\sqrt{4})}{4\%}$	$(4 \times alog(\sqrt{4})) - \frac{\Gamma(\sqrt{4})}{4\%}$	$\frac{\Sigma(\sqrt{4})}{4\%} \times \frac{\sqrt{4}}{.4}$
375	$\frac{\Gamma(\sqrt{4})}{4\%} \times \Sigma\left(\frac{\sqrt{4}}{.4}\right)$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - \frac{.4}{.4\%}$	$!(\Gamma(4)) + \frac{4}{4\%} + \Sigma(4)$
	$\frac{(\Gamma(4))! + \frac{\Gamma(\Gamma(4))}{4}}{\sqrt{4}}$	$\frac{\operatorname{atan}\left(\Gamma(\sqrt{4})\right)}{4\% \times (4 - \Gamma(\sqrt{4}))}$	$\frac{\Gamma(4)}{.4\% \times (\sqrt{4} + \sqrt{4})}$

SECTION IV — SOLUTIONS 301–400

375 (cont)	$\sqrt{\Sigma \left(\Sigma \left(acsc(\sqrt{4}) \right) \right) + (4!)!!!!!! + \Sigma \left((4 + \sqrt{4})!!! \right)}$	$\frac{\Gamma(\Gamma(4))}{4\% \times (4 + 4)}$	
	$\sqrt{\Sigma \left(\Sigma \left(acsc(\sqrt{4}) \right) \right) + ((\Gamma(4))!!!)!!!! + (4!)!!!!!! - \Gamma(\Gamma(4))}$		
376	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) + \Sigma(\Gamma(4))$	$\frac{\sqrt{\frac{.4}{4}} + .4}{.4}$	$\frac{((\Gamma(4))!!!)!!!! - \frac{4!!}{\sqrt{4}}}{.4}$
	$.4 \times \left(\left(\frac{4}{.4} \right)!! - E(4) \right)$	$.4 \times \left(\frac{\Gamma(4!!)}{\Gamma(4)} + \Gamma(4) \right)$	$\sqrt{\frac{.4}{4}} \times ((4!)^{\sqrt{4}} - (\Gamma(4))!!!!)$
	$(4! - 4)^{\sqrt{4}} - 4!$	$\frac{(\Gamma(4))! + \sqrt[4]{4}}{\sqrt{4}}$	$\frac{\Sigma((\Gamma(4))!!) - 4! - 4!}{\sqrt{!4}}$
	$\frac{\frac{\Gamma(4)}{.4\%} + 4}{4}$	$\frac{\Sigma(asec(\sqrt{4})) + \frac{\sqrt{4}}{4\%}}{E(4)}$	$\frac{\frac{\Sigma(4)}{.4\%} + \Gamma(4)}{\Gamma(4)}$
	$\frac{\frac{\Gamma(\Gamma(4))}{.4\%} + 4!!}{4!!}$	$\frac{\frac{\Gamma(\Gamma(4))}{.4\%} + (4!!)!!}{!4}$	$\frac{(\Sigma(4))!! - (\Sigma(4) \times 4!!)}{\Sigma(4)}$
	$\sqrt{!(!4) + \Sigma(\Gamma(\Gamma(4))) + (\Gamma(4))! - alog(\sqrt{4})}$		
377	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})}$	$\Sigma(acsc(\sqrt{4})) - asin\left(\frac{4}{4}\right) + \sqrt{4}$	
	$\Sigma(\Sigma(\Gamma(4))) + ((\Gamma(4))!!!)!!!!!! + \frac{4}{\sqrt{4}}$	$(4!!)!! - 4 - \sqrt{4} - \Gamma(\sqrt{4})$	
378	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma\left(\frac{4!}{\sqrt{4}}\right)$	$\sqrt{4} \times (\Sigma((\Gamma(4))!!!) + \Sigma(4) + 4!!)$	
	$\sqrt{!4} \times (\Gamma(\Gamma(4)) + 4 + \sqrt{4})$	$\frac{(\Sigma(\sqrt{4} + \sqrt{4} + \sqrt{4}))!!!!!!}{\sqrt{4}}$	
	$(4 + 4)!! - \frac{4!}{4}$	$\frac{\Sigma(\Sigma(\Sigma(4))) - 4! - 4}{4}$	$\frac{\frac{\Gamma(\Gamma(4))}{.4\%} + 4!}{4!!}$
379	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4)) + 4!$	$\Sigma(acsc(\sqrt{4})) - \frac{.4}{.4\%} + 4$	$\frac{\Sigma(\Sigma(4/.4)) - 4!}{4}$
	$(4 + 4)!! - \frac{\sqrt{4}}{.4}$	$\frac{(\Gamma(\Gamma(4))/4\%) + (4!!)!!!!}{4!!}$	$\frac{(\Sigma(4))!! - (\Gamma(4))!! - \sqrt{4}}{\Sigma(4)}$

SECTION IV — SOLUTIONS 301–400

	$\frac{\Gamma(\Gamma(4))}{.4} + (\Sigma(4) \times 4!!)$	$\frac{\sqrt{.4}}{.4\%} + \sqrt{4}$	$.4 \times \left(\frac{(4!!)!!}{.4} - \Sigma(4) \right)$
380	$(4 + 4)!! - \frac{4!!}{\sqrt{4}}$	$\sqrt{.4} \times ((4!)^{\sqrt{4}} - \Gamma(4))$	$\frac{((\Gamma(4))!!!))!! - 44}{E(4)}$
	$\frac{\Sigma(4)}{4!!} \times (\Sigma(4!) + 4)$	$\sqrt{!(!4) + (4!)!!!!!!} - (4!)!!!!!! + 4!!}$	
381	$\frac{\Gamma(\Gamma(4))}{.4} + (\Sigma(\sqrt{4}))^4$	$P(\Gamma(4), 4) + \Sigma(4 + \sqrt{4})$	$\Sigma(\Sigma(4 + \sqrt{4})) + \frac{\sqrt{.4}}{.4\%}$
	$(4 + 4)!! - \frac{4!}{4!!}$	$!(\Gamma(4)) + alog(\sqrt{4}) + 4^{\sqrt{4}}$	$\sqrt{!4} \times (alog(\sqrt{4}) + 4! + \Sigma(\sqrt{4}))$
382	$\frac{\Gamma(\Gamma(4))}{.4} + asin(\Gamma(\sqrt{4})) - 4!!$		$\sqrt{((4!!)!!)^{\sqrt{4}} - \frac{\Gamma(4)}{.4\%} - (4!!)!!!!}$
	$(4 + 4)!! - \frac{4}{\sqrt{4}}$	$P(\Gamma(4), 4) + 4! - \sqrt{4}$	$.4 \times \left(\left(\frac{4}{.4} \right)!! + \Sigma(4) \right)$
	$\sqrt{4} \times \left(\Sigma((\Gamma(4))!!!) + \frac{4!!}{.4} \right)$	$\frac{(\Sigma(\Gamma(4)))!!!!!! + 4 + 4}{\sqrt{4}}$	$\frac{\Sigma((\Gamma(4))!!) - asin(\frac{\sqrt{4}}{4})}{\Sigma(\sqrt{4})}$
383	$\frac{\Gamma(\Gamma(4))}{.4} + (4!!)!!! + \Sigma(\sqrt{4})$	$\Sigma(\Sigma(\Gamma(4))) + \frac{\sqrt{.4}}{.4\%} + \sqrt{4}$	$\frac{(\Sigma(4!!) \times \Sigma(\Gamma(4))) + \Sigma(4)}{\sqrt{4}}$
	$(4 + 4)!! - \frac{4}{4}$	$(4!!)!! - atan(\Gamma(\sqrt{4})) + 44$	$\frac{\Sigma(\Sigma(\frac{4}{.4})) - 4!!}{4}$
384	$\frac{\Gamma(\Gamma(4))}{.4} + (\Sigma(\Gamma(4)) \times 4)$	$4!! \times \Gamma(4) \times 4 \times \sqrt{4}$	$(\sqrt{4} + \sqrt{4} + \sqrt{4} + \sqrt{4})!!$
	$(4 + 4)!! \times \frac{4}{4}$	$\frac{\Sigma(\Sigma(\frac{4}{.4})) - 4}{4}$	$\frac{(\sqrt{.4} \times \Sigma(\Sigma(\Gamma(4)))) - .4}{.4}$
	$\frac{(4! \times 4)^{\sqrt{4}}}{4!}$	$(4 \cdot alog(\sqrt{4})) - (4 \cdot 4)$	$(4 + \sqrt{4}) \times \sqrt{4}^{\Gamma(4)}$

SECTION IV — SOLUTIONS 301–400

385	$\frac{\Gamma(\Gamma(4))}{.4} + (\Sigma(\Sigma(4)) + acsc(\sqrt{4}))$	$\Sigma((\Gamma(4))!!!) + \Gamma(\Gamma(4)) + asin(\Gamma(\sqrt{4})) + 4$
	$(4+4)!! + \frac{4}{4}$	$\frac{\sqrt{4}}{.4} \times \frac{\Sigma(\Sigma(\Gamma(4)))}{\Sigma(\sqrt{4})}$
	$\frac{\Sigma((\Gamma(4))!!)}{\sqrt{!4}} - \Sigma(4 + \sqrt{4})$	$\frac{(\Gamma(4))! + (\Gamma(4))!! + \sqrt{4}}{\sqrt{4}}$
	$\frac{\frac{(4!!)!}{\Sigma(\Gamma(4))} + E(4)}{E(4)}$	$\frac{\Sigma(\Sigma(\Sigma(4)))}{4} \times \frac{4}{4}$
386	$\frac{\Gamma(\Gamma(4))}{.4} + asin(\Gamma(\sqrt{4})) - 4$	$\frac{(\sqrt{.4} \times \Sigma(\Sigma(\Gamma(4)))) + .4}{.4}$
	$(4+4)!! + \frac{4}{\sqrt{4}}$	$\frac{\Sigma(\Sigma(\frac{4}{.4})) + 4}{4}$
	$\sqrt{!(!4) + (4!)!!!!!! + \Sigma((4!!)!!!) + (\Sigma(4))!!!!!!}$	
387	$\frac{\Gamma(\Gamma(4))}{.4} + asin(\Gamma(\sqrt{4})) - \Sigma(\sqrt{4})$	$\Sigma(\sqrt{4}) \times (\Gamma(\Gamma(4)) + E(4) + 4)$
	$(4+4)!! + \frac{4!}{4!!}$	$\frac{\Sigma(\Sigma(\frac{4}{.4})) + 4!!}{4}$
388	$\frac{\Gamma(\Gamma(4))}{.4} + asin(\Gamma(\sqrt{4})) - \sqrt{4}$	$\sqrt{\frac{(\Sigma(4))!}{4!} - \Sigma(\Sigma(4!!)) + \Sigma(4)}$
	$(4+4)!! + \frac{4!!}{\sqrt{4}}$	$.4 \times \left(\frac{(4!!)!!}{.4} + \Sigma(4) \right)$
	$\left((\Gamma(4))!!! \right)^{\sqrt{4}} + 4!!^{\sqrt{4}}$	$.4 \times \left(\frac{(4!!)!!}{.4} + !4 \right)$
	$\frac{\Sigma((\Gamma(4))!!) - 4!! - 4}{\Sigma(\sqrt{4})}$	$\frac{\left((\Gamma(4))!!! \right) !!! - 4}{E(4)}$
	$\frac{\left((\Gamma(4))!! \right)^{\sqrt{4}} + 4!}{\Gamma(4)}$	$\frac{4!!}{(\sqrt{4})\%} - 4!! - 4$

SECTION IV — SOLUTIONS 301–400

	$\frac{\Gamma(\Gamma(4))}{.4} + \operatorname{asin}(\Gamma(\sqrt{4})) - \Gamma(\sqrt{4})$	$\sqrt{\frac{(\Sigma(4))!}{4!}} + \Gamma(\Gamma(4)) + \Gamma(\sqrt{4})$
389	$(4+4)!! + \frac{\sqrt{4}}{.4}$	$\Sigma(acsc(\sqrt{4})) - C(4!! , 4) - \Gamma(4)$
	$\frac{\Sigma(\Sigma(\Sigma(4))) + (4 \times 4)}{4}$	$\frac{((\Gamma(4))!!!!) !!! + \frac{4}{4}}{E(4)}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{.4}{.4\%}$	$\frac{(4 \times 4) - .4}{4\%}$
	$(4+4)!! + \frac{4!}{4}$	$\sqrt{\frac{(\Sigma(4))!}{4!}} + \frac{4}{.4\%}$
390	$\frac{\Sigma((\Gamma(4))!!) - 4 - \sqrt{4}}{\Sigma(\sqrt{4})}$	$\frac{\Sigma(\Sigma(\Sigma(4))) + \frac{4!!}{.4}}{4}$
	$\frac{((\Gamma(4))!!)^{\sqrt{4}} + \Sigma(4!!)}{\Gamma(4)}$	$\frac{((\Gamma(4))!!!!) !!! + 4 + \sqrt{4}}{E(4)}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \Sigma(\Sigma(4) + \Sigma(\sqrt{4}))$	$\Sigma(acsc(\sqrt{4})) - \frac{(4!!)!!!!}{.4} - \sqrt{4}$
391	$(4 \cdot alog(\sqrt{4})) - \frac{4}{.4}$	$\frac{((\Gamma(4))!!!)!!!!!! - \frac{4}{.4}}{\sqrt{4}}$
	$\frac{\Sigma\left(\Sigma\left(\frac{4}{.4}\right)\right) + 4!}{4}$	$\frac{\Sigma((\Gamma(4))!!) - \frac{4!}{4!!}}{\Sigma(\sqrt{4})}$
	$\frac{\Gamma(\Gamma(4))}{.4} + \operatorname{asin}(\Gamma(\sqrt{4})) + \sqrt{4}$	$\sqrt{4} \times (alog(\sqrt{4}) + \operatorname{asin}(\Gamma(\sqrt{4})) + \Gamma(4))$
	$(4+4)!! + 4 + 4$	$.4 \times (\Sigma(44) - \Sigma(4))$
392	$\frac{\Sigma((\sqrt{4} + \sqrt{4} + \sqrt{4})!!)}{\Sigma(\sqrt{4})}$	$\frac{\Sigma(\Sigma(\Sigma(4))) + 4! + 4}{4}$
	$\frac{((\Gamma(4))!!)^{\sqrt{4}} + (\Gamma(4))!!}{\Gamma(4)}$	$\frac{((\Gamma(4))!!!!) !!! + (4 \times 4)}{E(4)}$
	$\frac{\Sigma((4!!)!!)}{\Sigma(\Gamma(4))} + 4!!$	$(4 \cdot alog(\sqrt{4})) - 4 - 4$

SECTION IV — SOLUTIONS 301–400

393	$\frac{\Gamma(\Gamma(4))}{.4} + \arcsin(\Gamma(\sqrt{4})) + \Sigma(\sqrt{4})$	$(\Sigma(\sqrt{4}) \times \Sigma(\Sigma(4 + \sqrt{4}))) - \Sigma(4!)$
	$(4 + 4)!! + \frac{4}{.4}$	$\frac{(\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4))) + 4!}{\Sigma(\sqrt{4})}$
	$\Sigma(\sqrt{4}) \times (\Sigma(\Sigma(\Gamma(4)))) - \frac{4}{4\%}$	$\Sigma(acsc(\sqrt{4})) - C(4!! , 4) - \sqrt{4}$
394	$\frac{\Gamma(\Gamma(4))}{.4} + \arcsin(\Gamma(\sqrt{4})) + 4$	$\Sigma(\sqrt{4})$
	$\sqrt{alog(E(4)) + ((\Gamma(4))!!!!)!! + \Sigma(\tan(-\Gamma(\sqrt{4}))) - 4!}$	
	$(4 \cdot alog(\sqrt{4})) - 4 - \sqrt{4}$	$\frac{((\Gamma(4))!!!)!!!!!! - \frac{4!!}{\sqrt{4}}}{\sqrt{4}}$
395	$\frac{\Gamma(\Gamma(4))}{.4} + \tan(\Gamma(\sqrt{4})) + (\Sigma(4))!!!!$	$\Sigma(acsc(\sqrt{4})) - C(4 + 4, 4)$
	$(4 \cdot alog(\sqrt{4})) - \frac{\sqrt{4}}{.4}$	$\frac{(\Gamma(4))! + C(4!! , 4)}{\sqrt{4}}$
	$E(4) \times \left((4!!)!!! - \frac{4}{4} \right)$	$\frac{\frac{\Gamma(4)}{.4\%} + (4!!)!!!}{4}$
396	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + ((\Gamma(4))!!!!)!! + \Sigma(\Sigma(\Sigma(4))) + asec(\sqrt{4})}$	
	$\frac{\Gamma(\Gamma(4))}{.4} + (4! \times 4)$	$\frac{4 + 4}{(\sqrt{4})\%} - 4$
	$\frac{((\Gamma(4))!!!)!!!!!! - 4 + .4}{.4}$	
396	$.4 \times \Sigma(44) \times \Gamma(\sqrt{4})$	$\frac{\Sigma(\Sigma(4) + 4!!) + E(4)}{.4}$
	$.4 \times \left(\frac{(4!!)!}{\tan(\Gamma(\sqrt{4}))} - E(4) \right)$	
	$\frac{((4 + \sqrt{4})!!!)!!!!!!}{4 - \sqrt{4}}$	$\frac{4!! \times alog(\sqrt{4}) - 4!!}{\sqrt{4}}$
	$\frac{\Sigma((\Gamma(4))!!) + 4!! + 4}{\Sigma(\sqrt{4})}$	

SECTION IV — SOLUTIONS 301–400

	$\frac{(\Gamma(4))!!}{4\%} - (\Gamma(4))!!!!$	$\frac{\Sigma(\Sigma(\Sigma(4))) + 44}{4}$	$\frac{(\Gamma(4))!}{.4} - \Sigma(4!!)$
396 (cont)	$\frac{((\Gamma(4))!!!!)!!! + \Sigma(4 + 4)}{E(4)}$	$\frac{(4!!)!}{\Sigma(\Gamma(4))} + asec(\sqrt{4})$	$\frac{(asec(\sqrt{4}))^{\sqrt{4}} - \Sigma(4!!)}{!4}$
	$(4 \cdot alog(\sqrt{4})) - \sqrt{4} - \sqrt{4}$		$\sqrt{((\Sigma(4))! \div 4!) + ((4 + \sqrt{4})!!!)}!!!!$
397	$\frac{\Gamma(\Gamma(4))}{.4} + alog(\sqrt{4}) - \Sigma(\sqrt{4})$	$\frac{((\Gamma(4))!!!)!!!!!! + \sqrt{4}}{4 - \sqrt{4}}$	$\frac{(\Gamma(4))!!}{4\%} - !4$
	$(4 \cdot alog(\sqrt{4})) - \frac{4!}{4!!}$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - 44$	$\frac{\Sigma(\Sigma(\Sigma(4))) + (\Gamma(4))!!}{4!! - 4}$
398	$\frac{\Gamma(\Gamma(4))}{.4} + alog(\sqrt{4}) - \sqrt{4}$	$(4 + 4)!! + \Sigma(4) + 4$	$.4 \times \left(\frac{4}{4\%} - E(4) \right)$
	$\Sigma(4) \times (\Sigma(4!!) + 4 - \sqrt{4\%})$	$\frac{4 + 4}{(\sqrt{4})\%} - \sqrt{4}$	$\frac{((\Gamma(4))!!!)!!!!!! + 4}{4 - \sqrt{4}}$
	$\frac{\Sigma((\Gamma(4))!!) + \Sigma(4) + 4!!}{\Sigma(\sqrt{4})}$	$\frac{\sqrt{4}}{.4\%} - (\Gamma(4))!! - 4$	$\frac{\Sigma(\Sigma(\Sigma(4))) + (\Gamma(4))!! + 4}{4}$
399	$\frac{\Gamma(\Gamma(4))}{.4} + alog(\sqrt{4}) - \Gamma(\sqrt{4})$	$\Sigma(\sqrt{4}) \times (alog(\sqrt{4}) + acsc(\sqrt{4}) + \Sigma(\sqrt{4}))$	
	$(4 \cdot alog(\sqrt{4})) - \frac{4}{4}$	$\frac{\Sigma((\Gamma(4))!!) + \Sigma(\Gamma(4))}{4 - \Gamma(\sqrt{4})}$	$\frac{\Sigma((4!!)!!!) - 4! - 4!}{4!!}$
	$\sqrt{\Sigma(\Sigma(acsc(\sqrt{4}))) + \Sigma(\Sigma(4!)) + ((\Gamma(4))!!!)!!!! + asin(\Gamma(\sqrt{4}))}$		
400	$\frac{\Gamma(\Gamma(4))}{.4} + \frac{4}{4\%}$	$(4! - 4) \times (4! - 4)$	$\frac{4^{\Sigma(\sqrt{4})}}{.4 \times .4}$
	$\frac{4!!}{4\%} + \frac{4!!}{4\%}$	$\frac{4 \times \sqrt{4} \times \sqrt{4}}{4\%}$	$\Sigma(4!) + \Sigma(4!) - \frac{4!!}{4\%}$
	$\left(\frac{4}{.4}\right)!!! + \left(\frac{4}{.4}\right)!!!!$	$(4 + 4)!! + 4^{\sqrt{4}}$	$\left(\sqrt{.4} \times \Sigma(\Sigma(4!!))\right) - 44$
	$\sqrt{(!4) + \Sigma(\Sigma(\Gamma(4)))} - \Sigma(4!) + 4!!$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - atan(\Gamma(\sqrt{4})) + 4$	

Solutions History 301–400

<i>n</i>	1993	1998	2012	2021
301	-	-	-	8
302	-	-	-	5
303	-	-	-	5
304	-	-	-	6
305	-	-	-	5
306	-	-	-	5
307	-	-	-	5
308	-	-	-	5
309	-	-	-	5
310	-	-	-	6
311	-	-	-	8
312	-	-	-	8
313	-	-	-	5
314	-	-	-	6
315	-	-	-	5
316	-	-	-	6
317	-	-	-	5
318	-	-	-	5
319	-	-	-	5
320	-	-	-	6
321	-	-	-	5
322	-	-	-	5
323	-	-	-	5
324	-	-	-	5
325	-	-	-	9
326	-	-	-	7
327	-	-	-	7
328	-	-	-	9
329	-	-	-	7
330	-	-	-	8
331	-	-	-	7
332	-	-	-	6
333	-	-	-	9
334	-	-	-	5
335	-	-	-	7
336	-	-	-	9
337	-	-	-	9
338	-	-	-	6
339	-	-	-	4
340	-	-	-	8

<i>n</i>	1993	1998	2012	2021
341	-	-	-	5
342	-	-	-	6
343	-	-	-	5
344	-	-	-	5
345	-	-	-	7
346	-	-	-	5
347	-	-	-	5
348	-	-	-	8
349	-	-	-	5
350	-	-	-	10
351	-	-	-	13
352	-	-	-	7
353	-	-	-	5
354	-	-	-	9
355	-	-	-	6
356	-	-	-	8
357	-	-	-	5
358	-	-	-	9
359	-	-	-	5
360	-	-	-	15
361	-	-	-	5
362	-	-	-	5
363	-	-	-	5
364	-	-	-	9
365	-	-	-	6
366	-	-	-	5
367	-	-	-	8
368	-	-	-	5
369	-	-	-	5
370	-	-	-	5
371	-	-	-	7
372	-	-	-	8
373	-	-	-	11
374	-	-	-	10
375	-	-	-	12
376	-	-	-	16
377	-	-	-	4
378	-	-	-	7
379	-	-	-	6
380	-	-	-	8

<i>n</i>	1993	1998	2012	2021
381	-	-	-	6
382	-	-	-	11
383	-	-	-	6
384	-	-	-	9
385	-	-	-	11
386	-	-	-	6
387	-	-	-	5
388	-	-	-	14
389	-	-	-	8
390	-	-	-	12
391	-	-	-	8
392	-	-	-	11
393	-	-	-	7
394	-	-	-	9
395	-	-	-	9
396	-	-	-	18
397	-	-	-	6
398	-	-	-	9
399	-	-	-	6
400	-	-	-	11
Σ	-	-	-	723

Notes: Solutions above 300 were not included in the 1993, 1998, and 2012 editions.

For this section, I had originally planned to limit the number of solutions per number to just what would fit into two table rows, which usually means five or six solutions per number. For the first quarter of this section, I mostly held to this plan. But then, as I spent a little more time with each number, I kept stumbling across many more interesting solutions than what could fit into just two table rows. So, I went a little crazy, to the point that 14 numbers ended up with double-digit numbers of solutions.

SECTION V — SOLUTIONS 401–500

401	$\frac{4!!}{(\sqrt{4})\%} + \frac{4}{4}$	$\left(\Sigma(\Gamma(4))\right)^{\sqrt{4}} - \frac{4!!}{\sqrt{4}\%}$	
	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - 4!!^{\sqrt{4}}$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} - \frac{4!!}{\sqrt{4}}$	
402	$\frac{4!!}{(\sqrt{4})\%} + \frac{4}{\sqrt{4}}$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} - \frac{4!}{4!!}$	
	$(4+4)!! + \frac{4!!}{.4}$		
403	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!}{4!!}$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} - \frac{4}{\sqrt{4}}$	
	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - asec(\sqrt{4}) - \sqrt{4}$		
404	$\frac{4!!}{(\sqrt{4})\%} + \sqrt{4 \times 4}$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} - \frac{4}{4}$	
	$(4!!)!! + \Sigma(\Gamma(4)) - \frac{4}{4}$	$4 \times \left(alog(\sqrt{4}) + \frac{4}{4}\right)$	
405	$\frac{4!!}{(\sqrt{4})\%} + \frac{\sqrt{4}}{.4}$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} \times \frac{4}{4}$	
	$((4!!)!! + \Sigma(\Gamma(4))) \times \frac{4}{4}$	$\frac{4!}{4!!} \times atan\left(-\frac{4}{4}\right)$	
406	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!}{4}$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} + \frac{4}{4}$	
	$(4!!)!! + \Sigma(\Gamma(4)) + \frac{4}{4}$		
407	$\frac{4!!}{(\sqrt{4})\%} + 4!! - \Gamma(\sqrt{4})$	$\frac{\left((\Gamma(4))!!!\right) !!!}{\left((\Gamma(4))!!!\right)!!!!!!} + \frac{4}{\sqrt{4}}$	
	$(4!!)!! + 4! - \frac{4}{4}$		

SECTION V — SOLUTIONS 401–500

408	$\frac{4!!}{(\sqrt{4})\%} + 4 + 4$	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!!!} + \frac{4!}{4!!}$	
	$((4!!)!! + 4!) \times \frac{4}{4}$	$\frac{4!}{4!!} \times \Sigma(4 \times 4)$	
409	$\frac{4!!}{(\sqrt{4})\%} + \frac{4}{.4}$	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!!!} + \frac{4!!}{\sqrt{4}}$	
	$(4!!)!! + 4! + \frac{4}{4}$		
410	$\frac{4!!}{(\sqrt{4})\%} + \frac{4}{.4}$	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!!!} + \frac{\sqrt{4}}{.4}$	
	$\frac{(4 \times 4) + .4}{4\%}$	$E(4) \times \left(\text{asin}\left(\frac{4}{4}\right) - 4!! \right)$	
411	$\frac{4!!}{(\sqrt{4})\%} + 4!! + \Sigma(\sqrt{4})$	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!!!} + \frac{4!}{4}$	
		$\frac{\sqrt{E((\Gamma(4))!!!!) - \Sigma(\Gamma(4)) - 4!!}}{4}$	
412	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!}{\sqrt{4}}$	$(4 + 4)!! + 4! + 4$	
	$.4 \times \left(\frac{4}{.4\%} + \text{acsc}(\sqrt{4}) \right)$		
413	$\frac{4!!}{(\sqrt{4})\%} + !4 + 4$	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!!!} + 4 + 4$	
	$\Sigma(\text{acsc}(\sqrt{4})) - (\Gamma(4))!! - 4$		
414	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4) + 4$	$\frac{((\Gamma(4))!!!) !!!}{((\Gamma(4))!!!)!!!!!!} + \frac{4}{.4}$	$(4 + 4)!! + \frac{\Gamma(\Gamma(4))}{4}$
	$.4 \times \Sigma(\text{atan}(\Gamma(\sqrt{4}))) \times \frac{4}{4}$		$\frac{4!!}{.4} \times (\Sigma(\Gamma(4)) + \sqrt{4})$

SECTION V — SOLUTIONS 401–500

415	$\frac{4!!}{(\sqrt{4})\%} + \left(\frac{\sqrt{4}}{.4}\right)!!$ $\Sigma(acsc(\sqrt{4})) - (\Gamma(4))!! - \sqrt{4}$	$\frac{((\Gamma(4))!!!)!!!}{((\Gamma(4))!!!)!!!!} + \frac{4}{.4}$	$\frac{\Gamma(4!!)}{\Gamma(4)} - \Sigma(4)$ $\frac{\sqrt{4}}{\sqrt{4}}$
416	$\frac{4!!}{(\sqrt{4})\%} + 4^{\sqrt{4}}$ $\sqrt[4]{4} \times (!4 + 4)$	$(4 + 4)!! + \sqrt[4]{4}$	$\frac{\Gamma(4!!)}{\Gamma(4)} - 4!!$ $\frac{\sqrt{4}}{\sqrt{4}}$
417	$\frac{4!!}{(\sqrt{4})\%} + !4 + 4!!$ $\Sigma(acsc(\sqrt{4})) - (\sqrt{4} + \sqrt{4} + \sqrt{4})!!$	$\frac{\Gamma(4!!)}{\Gamma(4)} - \Gamma(4)$ $\frac{\sqrt{4}}{\sqrt{4}}$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - \left(\frac{4!}{\Gamma(4)}\right)!$
418	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!!}{.4}$ $\frac{\sqrt{4}}{.4\%} - (4!! \times 4)$	$\frac{\Gamma(4!!)}{\Gamma(4)} - 4$ $\frac{\sqrt{4}}{\sqrt{4}}$	
419	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4) + !4$ $\frac{\Sigma(\Sigma(4!))}{\Sigma(\Gamma(4))} - \Sigma(\Sigma(4))$ $E(4)$	$\frac{\Gamma(4!!)}{\Gamma(4)} - \sqrt{4}$ $\frac{\sqrt{4}}{\sqrt{4}}$	
420	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!!}{.4}$ $444 - 4!$ $4 \times \left(\frac{4}{4\%} + E(4)\right)$	$\frac{(\Gamma(4) + 4 + 4)!!!!}{4}$ $\frac{\Gamma(4 + 4)}{4!! + 4}$ $\sqrt{4} \times C\left(\frac{4}{.4}, 4\right)$	$(\Sigma(\Gamma(4)))^{\sqrt{4}} - \Sigma(4 + \sqrt{4})$
421	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4 + \sqrt{4})$ $\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - 44$	$\frac{\Gamma(4!!)}{\Gamma(4)} + \sqrt{4}$ $\frac{\sqrt{4}}{\sqrt{4}}$	

SECTION V — SOLUTIONS 401–500

422	$\frac{4!!}{(\sqrt{4})\%} + 4! - \sqrt{4}$	$\frac{\Gamma(4!!)}{\Gamma(4)} + 4$ $\frac{\sqrt{4}}{\sqrt{4}}$	
	$\sqrt{4} \times \left(\frac{\Gamma(4!!)}{4!} + \Gamma(\sqrt{4}) \right)$		
423	$\frac{4!!}{(\sqrt{4})\%} + 4! - \Gamma(\sqrt{4})$	$\frac{\Gamma(4!!)}{\Gamma(4)} + \Gamma(4)$ $\frac{\sqrt{4}}{\sqrt{4}}$	
	$! 4 \times \left((\Gamma(4))!! - \frac{4}{4} \right)$		
424	$\frac{4!!}{(\sqrt{4})\%} + 4 \times \Gamma(4)$	$\frac{\Gamma(4!!)}{\Gamma(4)} + 4!!$ $\frac{\sqrt{4}}{\sqrt{4}}$	
	$4!! \times \left(\Sigma \left(\frac{4}{4} \right) - \sqrt{4} \right)$		
425	$\frac{4!!}{(\sqrt{4})\%} + \frac{\Gamma(\sqrt{4})}{4\%}$	$\frac{\Gamma(4!!)}{\Gamma(4)} + \Sigma(4)$ $\frac{\sqrt{4}}{\sqrt{4}}$	
	$(! 4 + 4!!) \times \frac{\Gamma(\sqrt{4})}{4\%}$		
426	$\frac{4!!}{(\sqrt{4})\%} + 4! + \sqrt{4}$	$444 - (\Gamma(4))!!!$	
	$\frac{4!}{4} \times ((4!!)!!! - ! 4)$		
427	$\frac{4!!}{(\sqrt{4})\%} + \left(\Sigma(\sqrt{4}) \right)^{\Sigma(\sqrt{4})}$	$\Sigma(acsc(\sqrt{4})) - acsc(\sqrt{4}) - 4 - 4$	
	$C(acsc(\sqrt{4}), \sqrt{4}) - 4 - 4$		
428	$\frac{4!!}{(\sqrt{4})\%} + 4! + 4$	$(4!!)!! + \Sigma(! 4) - \frac{4}{4}$	
	$(4 + 4)!! + 44$		
429	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Gamma(4)) + 4!!$	$((4!!)!! + \Sigma(! 4)) \times \frac{4}{4}$	
	$C(acsc(\sqrt{4}), \sqrt{4}) - 4 - \sqrt{4}$		

SECTION V — SOLUTIONS 401–500

430	$\frac{4!!}{(\sqrt{4})\%} + \sqrt{\frac{4}{.\bar{4}\%}}$	$(4!!)!! + \Sigma(! 4) + \frac{4}{4}$	
	$C(acsc(\sqrt{4}), \sqrt{4}) - \frac{\sqrt{4}}{.4}$		
431	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) - 4!$	$\frac{(4! \times 4!!) - .\bar{4}}{.\bar{4}}$	$C(acsc(\sqrt{4}), \sqrt{4}) - \frac{4!!}{\sqrt{4}}$
		$\Sigma(\Sigma(4!!)) - atan(-\Gamma(\sqrt{4})) - \Sigma(\Sigma(4)) - \Sigma(! 4)$	
432	$\frac{4!!}{(\sqrt{4})\%} + \sqrt[4]{4}$	$\sqrt[4]{4} \times (alog(\sqrt{4}) + 44)$	
	$\frac{(4! \times (4 + 4)) + .\bar{4}}{.\bar{4}}$	$.4 \times \frac{(4 + \sqrt{4})!}{\sqrt[4]{4}}$	
433	$\frac{4!!}{(\sqrt{4})\%} + acsc(\sqrt{4}) + \Sigma(\sqrt{4})$		
	$\frac{(4! \times 4!!) + .\bar{4}}{.\bar{4}}$	$\frac{(4!!)!!}{.\bar{4}} + \sqrt{4}$	
434	$\frac{4!!}{(\sqrt{4})\%} + 4! + \Sigma(4)$	$\frac{(4!!)!!}{.\bar{4}} + 4$	
	$444 - \Sigma(4)$	$.4 \times \left(\frac{(\Gamma(4))!}{\sqrt[4]{4}} + E(4) \right)$	
435	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!!) - \Gamma(\sqrt{4})$	$C(4! + 4 + \sqrt{4}, \sqrt{4})$	
	$444 - ! 4$		
436	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4 + 4)$	$\frac{(4!!)!!}{.\bar{4}} + 4!!$	
	$444 - 4!!$		
437	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!!) + \Gamma(\sqrt{4})$	$C(acsc(\sqrt{4}), \sqrt{4}) + \frac{4}{\sqrt{4}}$	
	$(\Sigma(4 + \sqrt{4}))^{\sqrt{4}} - 4$		

SECTION V — SOLUTIONS 401–500

438	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!!) + \sqrt{4}$	$.4 \times \left(\Sigma \left(\text{atan} \left(\Gamma(\sqrt{4}) \right) \right) + \text{asec} \left(\frac{4}{\sqrt{4}} \right) \right)$
	$444 - \Gamma(4)$	
439	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!!) + \Sigma(\sqrt{4})$	$\left(\Sigma(\Gamma(4)) \right)^{\sqrt{4}} - \frac{4}{\sqrt{4}}$
	$444 - E(4)$	
440	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!!) + 4$	$\Sigma \left(\frac{4}{.4} \right) \times (4 + 4)$
	$444 - 4$	$44 \times \frac{4}{.4}$
441	$\frac{4!!}{(\sqrt{4})\%} + \text{atan} \left(\Gamma(\sqrt{4}) \right) - 4$	$\Sigma \left(\text{acsc} \left(\frac{4}{\sqrt{4}} \right) \right) - (\sqrt{4} + \sqrt{4})!$
	$444 - \Sigma(\sqrt{4})$	$\left(\Sigma(\Gamma(4)) \right)^{\sqrt{4}} \times \frac{4}{4}$
442	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!!) + \Gamma(4)$	$\left(\Sigma(\Gamma(4)) \right)^{\sqrt{4}} + \frac{4}{4}$
	$444 - \sqrt{4}$	$.4 \times \left(\frac{\text{atan} \left(\Gamma(\sqrt{4}) \right)}{4\%} - (\Sigma(4))!!!!!! \right)$
443	$\frac{4!!}{(\sqrt{4})\%} + \text{atan} \left(\Gamma(\sqrt{4}) \right) - \sqrt{4}$	
	$444 - \Gamma(\sqrt{4})$	$\left(\Sigma(\Gamma(4)) \right)^{\sqrt{4}} + \frac{4}{\sqrt{4}}$
444	$\frac{4!!}{(\sqrt{4})\%} + 44$	$4 \times \left(\frac{(4!!)!}{(4!!)!!} + \Gamma(4) \right)$
	$444 \times \Gamma(\sqrt{4})$	$\sqrt{.4} \times \Sigma(\Sigma(4!!)) \times \frac{4}{4}$
445	$\frac{4!!}{(\sqrt{4})\%} + \Sigma \left(\frac{4}{.4} \right)$	$\left(\Sigma(\Gamma(4)) \right)^{\sqrt{4}} + \frac{4!!}{\sqrt{4}}$
	$444 + \Gamma(\sqrt{4})$	$\frac{\left((\Gamma(4))!!!! \right)!!!! + \frac{4}{.4}}{.4}$

SECTION V — SOLUTIONS 401–500

446	$\frac{4!!}{(\sqrt{4})\%} + \text{atan}(\Gamma(\sqrt{4})) + \Gamma(\sqrt{4})$ $444 + \sqrt{4}$	$.4 \times \left(\frac{\text{atan}(\Gamma(\sqrt{4}))}{4\%} - \Sigma(4) \right)$
447	$\frac{4!!}{(\sqrt{4})\%} + \text{atan}(\Gamma(\sqrt{4})) + \sqrt{4}$ $444 + \Sigma(\sqrt{4})$	$\sqrt{!4} \times \left(\frac{\sqrt{.4}}{.4\%} - \Gamma(\sqrt{4}) \right)$
448	$\frac{4!!}{(\sqrt{4})\%} + 4! + 4!$ $444 + 4$	$4 \times (\Gamma(\Gamma(4)) - 4 - 4)$
449	$\frac{4!!}{(\sqrt{4})\%} + \text{atan}(\Gamma(\sqrt{4})) + 4$ $444 + E(4)$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - (4 \times 4)$ $\frac{4!!}{4\%} - .\bar{4}$
450	$\frac{4!!}{(\sqrt{4})\%} + \frac{\sqrt{4}}{4\%}$ $444 + \Gamma(4)$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - \Sigma\left(\frac{\sqrt{4}}{.4}\right)$ $\frac{4!}{4!!} \times \frac{\sqrt{.4}}{.4\%}$ $\sqrt{(\Sigma(\Gamma(4)))!!!! - (\Sigma(4 + \sqrt{4}))!!!!!! + (4!)!!!!!!}}$
451	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) - 4$ $\frac{4 + 4}{.4 \times 4\%}$	$\frac{4!!}{4\%} + .\bar{4}$
452	$\frac{4!!}{(\sqrt{4})\%} + (\Gamma(4))!! + 4$ $444 + 4!!$	$\frac{\sqrt{4}}{.4\%} - 4! - 4!$
453	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) - \sqrt{4}$ $444 + !4$	$\sqrt{!4} \times \left(\frac{\sqrt{.4}}{.4\%} + \Gamma(\sqrt{4}) \right)$

SECTION V — SOLUTIONS 401–500

454	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!}{.4}$	$(4+4)!! + C(4!! , 4)$	
	$444 + \Sigma(4)$		
455	$\frac{4!!}{(\sqrt{4})\%} + \Sigma\left(\frac{4}{.4}\right)$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - \frac{4}{.4}$	$E(4) \times \left(\frac{.4}{.4\%} + \Gamma(\sqrt{4})\right)$
		$\Sigma(\Sigma(4!!)) - atan(-\Gamma(\sqrt{4})) - \Sigma(\Sigma(4)) - \Sigma(\Gamma(4))$	
456	$\frac{4!!}{(\sqrt{4})\%} + \frac{(4!!)!}{(\Gamma(4))!}$	$\frac{\sqrt{4}}{.4\%} - 44$	
	$\sqrt{!4} \times \left(\frac{\sqrt{.4}}{.4\%} + \sqrt{4}\right)$		
457	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) + \sqrt{4}$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - 4 - 4$	
	$\left(\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))\right) - \frac{\sqrt{4}}{.4}$		
458	$\frac{4!!}{(\sqrt{4})\%} + (\Gamma(4))!! + \Sigma(4)$		
	$\left(\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))\right) - \frac{4!!}{\sqrt{4}}$		$.4 \times (\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4)) - \Sigma(4))$
459	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) + 4$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - 4 - \sqrt{4}$	
	$\left(\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))\right) - \frac{4!}{4!!}$		
460	$\frac{4!!}{(\sqrt{4})\%} + \frac{4!}{.4}$	$P(!4, \sqrt{!4}) - 44$	
	$\left(\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))\right) - \frac{4}{\sqrt{4}}$	$\frac{4}{.4\%} + (\Sigma(4))!!!!!!$	
461	$\frac{4!!}{(\sqrt{4})\%} + asec(\sqrt{4}) + \Gamma(\sqrt{4})$		
	$\left(\sqrt{4} \times \Sigma(\Sigma(\Gamma(4)))\right) - \frac{4}{4}$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - \sqrt{4} - \sqrt{4}$	

SECTION V — SOLUTIONS 401–500

462	$\frac{4!!}{(\sqrt{4})\%} + \text{asec}(\sqrt{4}) + \sqrt{4}$	$\frac{4!}{4} \times \frac{\Sigma(\Gamma(4))}{\Sigma(\sqrt{4})}$	
	$(\sqrt{4} \times \Sigma(\Gamma(4))) \times \frac{4}{4}$	$4.4 \times \frac{(4!!)!}{(4!!)!!}$	
463	$\frac{4!!}{(\sqrt{4})\%} + \text{asec}(\sqrt{4}) + \Sigma(\sqrt{4})$		
	$(\sqrt{4} \times \Sigma(\Gamma(4))) + \frac{4}{4}$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) - \frac{4}{\sqrt{4}}$	
464	$\frac{4!!}{(\sqrt{4})\%} + 4^{\Sigma(\sqrt{4})}$	$\frac{(4 \times \Sigma(\Gamma(4))) + 4}{\sqrt{4}}$	
	$\frac{\sqrt{4}}{.4\%} - \frac{4!}{\sqrt{.4}}$	$444 + (\Sigma(4))!!!!!!$	
465	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) + \Sigma(4)$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) \times \frac{4}{4}$	$444 + \Sigma(\Gamma(4))$
	$\sqrt{!4} \times \left(\frac{\sqrt{.4}}{.4\%} + E(4) \right)$	$\frac{(4! \times 4!!) - \Gamma(4)}{.4}$	
	$!4 \times (acsc(\sqrt{4}) + \Sigma(\Gamma(4)) + \sqrt{.4})$		
466	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4!! + \Sigma(\sqrt{4}))$	$\frac{\sqrt{4}}{.4\%} + 4^{\sqrt{4}}$	$.4 \times (\Sigma(\Sigma(4)) \times \Sigma(\Gamma(4)) + \Sigma(4))$
	$\Sigma(\Sigma(4 + 4)) - \frac{4!!}{4\%}$		
467	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) + (\Gamma(4))!!!!$		
	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) + \frac{4}{\sqrt{4}}$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) + \frac{4}{\sqrt{4}}$	
468	$\frac{4!!}{(\sqrt{4})\%} + \text{asec}(\sqrt{4}) + 4!!$	$444 + 4!$	
	$\sqrt{!4} \times \left(\frac{\sqrt{.4}}{.4\%} + \Gamma(4) \right)$	$\frac{4!!}{4\%} + 4!!$	

SECTION V — SOLUTIONS 401–500

469	$\frac{4!!}{(\sqrt{4})\%} + \text{asec}(\sqrt{4}) + !4$	$\sqrt{\Sigma(\Sigma(4+4)) - \frac{\Sigma(\Sigma(4!))}{\Sigma(\Gamma(4))}}$	
	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) + \sqrt{4} + \sqrt{4}$		
470	$\frac{4!!}{(\sqrt{4})\%} + C(4!!, 4)$	$\frac{\sqrt{4}}{.4\%} + \frac{4!!}{.4}$	$\frac{(4! \times 4!!) - 4}{.4}$
	$\Sigma(4) \times \left((\Gamma(4))!! - \frac{4}{4}\right)$	$.4 \times \left(\Sigma((\Gamma(4))!!) - \frac{4}{4}\right)$	
471	$\frac{4!!}{(\sqrt{4})\%} + (4!!)!!! - !4$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) + 4 + \sqrt{4}$	
	$\sqrt{!4} \times (alog(\sqrt{4}) + \Sigma(\Sigma(4)) + \sqrt{4})$		$\sqrt{\Sigma(\Sigma(4+4)) - \frac{\Gamma(\Gamma(4))}{.4}}$
472	$\frac{4!!}{(\sqrt{4})\%} + (!4 \times 4!!)$	$\frac{\sqrt{4}}{.4\%} + 4! - \sqrt{4}$	
		$\sqrt{\Sigma(\Sigma(\Sigma(4!!))) + \frac{\Sigma(\sqrt{4})}{.4\%} - \sqrt{4}}$	
473	$\frac{4!!}{(\sqrt{4})\%} + (\Gamma(4))!!! + \Sigma(\Sigma(4))$		$\sqrt{\Sigma(\Sigma(\Sigma(4!!))) + \frac{(\Gamma(4))!}{.4} - \sqrt{4}}$
	$(\Sigma(\Gamma(4)))^{\sqrt{4}} + 4! + 4!!$		
474	$\frac{4!!}{(\sqrt{4})\%} + C(4!!, 4) + 4$	$4 \times \Gamma(\Gamma(4)) - 4 - \sqrt{4}$	$444 + acsc(\sqrt{4})$
		$\sqrt{\Sigma((\Gamma(4))!) - (4!)!!!!!! - (\Sigma(4))!! + \text{asec}(\sqrt{4})}$	
475	$\frac{4!!}{(\sqrt{4})\%} + \frac{\Sigma(\sqrt{4})}{4\%}$	$\Sigma\left(\frac{\Gamma(\Gamma(4))}{4}\right) + \frac{4}{.4}$	
	$\frac{\Gamma(\sqrt{4})}{4\%} \times (\Sigma(4) + !4)$		
	$\frac{alog(\sqrt{4}) + asin(4/4)}{.4}$		

SECTION V — SOLUTIONS 401–500

476	$\frac{4!!}{(\sqrt{4})\%} + (4!!)!!! - 4$	$.4 \times \left(\frac{(\Gamma(4))!!}{4\%} - \Sigma(4) \right)$	
	$\frac{((\Gamma(4))!!!!) !!! - \frac{4!!}{\sqrt{4}\%}}{4}$		
477	$\frac{4!!}{(\sqrt{4})\%} + \frac{\Sigma(\Gamma(4))}{\Sigma(\sqrt{4})}$	$\frac{\Sigma(\Gamma(4))}{4\%} - 4! - 4!$	
	$\Sigma(\sqrt{4}) \times (alog(\sqrt{4}) + \Sigma(\Sigma(4)) + 4)$		
478	$\frac{4!!}{(\sqrt{4})\%} + \Sigma\left(\frac{4!}{\sqrt{4}}\right)$	$.4 \times \left(\frac{(\Gamma(4))!!}{4\%} - E(4) \right)$	
	$\Sigma(\Sigma(4!!)) - (4 \times \Sigma(!4)) - 4!!$		
479	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) + 4!$	$\frac{((\Gamma(4))!!!!) !!! - 4! - 4}{4}$	
	$\frac{(4! \times 4!!) - .4}{.4}$		
480	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(4) \times 4!!$	$.4 \times \frac{(4 + \sqrt{4})!!}{4\%}$	$444 + \Sigma(4!!)$
	$\frac{4! \times (4 + 4)}{.4}$	$4 \times \Gamma(\sqrt{4} + \sqrt{4} + \sqrt{4})$	
481	$\frac{4!!}{(\sqrt{4})\%} + (\Sigma(\sqrt{4}))^4$	$\frac{((\Gamma(4))!!!!) !!! - 4! + 4}{4}$	
	$\frac{(4! \times 4!!) + .4}{.4}$		
482	$\frac{4!!}{(\sqrt{4})\%} + asin(\Gamma(\sqrt{4})) - 4!!$		
	$.4 \times \left(\frac{(\Gamma(4))!!}{4\%} + E(4) \right)$	$\frac{\sqrt{4}}{.4\%} - \Sigma(4) - 4!!$	
483	$\frac{4!!}{(\sqrt{4})\%} + (4!!)!!! + \Sigma(\sqrt{4})$	$\frac{\sqrt{4}}{.4\%} - !4 - 4!!$	
	$\Sigma(\sqrt{4}) \times (alog(\sqrt{4}) + \Sigma(\Sigma(4)) + \Gamma(4))$		

SECTION V — SOLUTIONS 401–500

484	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Gamma(4)) \times 4$	$(\Sigma(4) + 4!! + 4)^{\sqrt{4}}$	$.4 \times \left(\frac{(\Gamma(4))!!}{4\%} + \Sigma(4) \right)$
	$\frac{44^{\sqrt{4}}}{4}$	$(4 + 4)!! + \frac{4}{4\%}$	
485	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4)) + acsc(\sqrt{4})$		
	$E(4) \times \left(alog(\sqrt{4}) - \frac{4!}{4!!} \right)$	$\frac{\sqrt{4}}{.4\%} - \Sigma\left(\frac{\sqrt{4}}{.4}\right)$	
486	$\frac{4!!}{(\sqrt{4})\%} + asin(\Gamma(\sqrt{4})) - 4$		
	$\frac{4! \times 4}{.4 \times .4}$	$(\Sigma(\sqrt{4}))^{\sqrt{4}} \times \frac{4!}{.4}$	$(4 + \sqrt{4}) \times (!4)^{\sqrt{4}}$
487	$\frac{4!!}{(\sqrt{4})\%} + asin(\Gamma(\sqrt{4})) - \Sigma(\sqrt{4})$		
	$\Sigma(acsc(\sqrt{4})) + 4! - \frac{4}{\sqrt{4}}$	$\frac{((4 + \sqrt{4})!!!!)!!! + 4}{4}$	
488	$\frac{4!!}{(\sqrt{4})\%} + asin(\Gamma(\sqrt{4})) - \sqrt{4}$	$((\Sigma(4))!!!!!!)!!!!!! + (4!)!!!!!!$	
	$\frac{((4 + \sqrt{4})!!!!)!!! + 4!!}{4}$		
489	$\frac{4!!}{(\sqrt{4})\%} + asin(\Gamma(\sqrt{4})) - \Gamma(\sqrt{4})$	$444 + \Sigma(!4)$	
	$\Sigma(\sqrt{4}) \times (alog(\sqrt{4}) + \Sigma(\Sigma(4)) + 4!!)$		
490	$\frac{4!!}{(\sqrt{4})\%} + \frac{.4}{.4\%}$	$\Sigma(4) \times \left((\Gamma(4))!! + \frac{4}{4} \right)$	
	$\frac{\sqrt{4}}{.4\%} + \frac{4!!}{\sqrt{4\%}}$		
491	$\frac{4!!}{(\sqrt{4})\%} + \Sigma(\Sigma(4) + \Sigma(\sqrt{4}))$		
	$\Sigma(acsc(\sqrt{4})) + 4! + \frac{4}{\sqrt{4}}$	$(4 \times \Gamma(\Gamma(4))) + !4 + \sqrt{4}$	

SECTION V — SOLUTIONS 401–500

	$\frac{4!!}{(\sqrt{4})\%} + a \log(\sqrt{4}) - 4!!$		
492	$(4 \times \Gamma(\Gamma(4))) + \frac{4!}{\sqrt{4}}$		
	$\sqrt{!4} \times (\Gamma(\Gamma(4)) + 44)$		
493	$\frac{4!!}{(\sqrt{4})\%} + \arcsin(\Gamma(\sqrt{4})) + \Sigma(\sqrt{4})$		
	$(4 \times \Gamma(\Gamma(4))) + !4 + 4$	$\Sigma(acsc(\sqrt{4})) + 4! + 4$	
494	$\frac{4!!}{(\sqrt{4})\%} + a \log(\sqrt{4}) - \Gamma(4)$	$(4 \times \Gamma(\Gamma(4))) + \Sigma(4) + 4$	
	$(\sqrt{.4} \times \Sigma(\Sigma(4!!))) + \frac{\sqrt{4}}{4\%}$		
495	$\frac{4!!}{(\sqrt{4})\%} + a \log(\sqrt{4}) - E(4)$	$\sqrt{\Sigma((\Gamma(4))!)!} - !(4!!) + \Sigma(4!) - \sqrt{4}$	
	$E(4) \times !4 \times (!4 + \sqrt{4})$		
	$\Sigma(\sqrt{4}) \times (a \log(\sqrt{4}) + \Sigma(\Sigma(4)) + \Sigma(4))$		
496	$\frac{4!!}{(\sqrt{4})\%} + (4! \times 4)$	$4 \times \left(\frac{(\Gamma(4))!!}{.4} + 4 \right)$	
	$P(!4, \sqrt{!4}) - 4 - 4$		
497	$\frac{4!!}{(\sqrt{4})\%} + a \log(\sqrt{4}) - \Sigma(\sqrt{4})$		
	$\frac{\sqrt{4}}{.4\%} - \frac{4!}{4!!}$	$\frac{a \log(\Sigma(\sqrt{4})) - 4 - \sqrt{4}}{\sqrt{4}}$	
498	$\frac{4!!}{(\sqrt{4})\%} + a \log(\sqrt{4}) - \sqrt{4}$		
	$P(!4, \sqrt{!4}) - 4 - \sqrt{4}$	$\frac{a \log(\Sigma(\sqrt{4})) - \sqrt{4} - \sqrt{4}}{\sqrt{4}}$	
499	$\frac{4!!}{(\sqrt{4})\%} + a \log(\sqrt{4}) - \Gamma(\sqrt{4})$		
	$\frac{\sqrt{4}}{.4\%} - \frac{4}{4}$	$\Sigma(acsc(\sqrt{4})) + 4! + \frac{4}{.4}$	

SECTION V — SOLUTIONS 401–500

500	$\frac{4!!}{(\sqrt{4})\%} + \frac{4}{4\%}$	$\frac{\sqrt{4}}{4\%} \times \frac{4}{.4}$	
	$\frac{4 + 4}{.4 \times 4\%}$		
	$.4 \times \left(\frac{\Gamma(4!!)}{4} - \Sigma(4) \right)$		

Solutions History 401–500

<i>n</i>	1993	1998	2012	2021
401	–	–	–	4
402	–	–	–	3
403	–	–	–	3
404	–	–	–	4
405	–	–	–	4
406	–	–	–	3
407	–	–	–	3
408	–	–	–	4
409	–	–	–	3
410	–	–	–	4
411	–	–	–	3
412	–	–	–	3
413	–	–	–	3
414	–	–	–	5
415	–	–	–	4
416	–	–	–	4
417	–	–	–	4
418	–	–	–	3
419	–	–	–	3
420	–	–	–	7
421	–	–	–	4
422	–	–	–	3
423	–	–	–	3
424	–	–	–	3
425	–	–	–	3
426	–	–	–	3
427	–	–	–	3
428	–	–	–	3
429	–	–	–	3
430	–	–	–	3
431	–	–	–	4
432	–	–	–	4
433	–	–	–	3
434	–	–	–	4
435	–	–	–	3
436	–	–	–	3
437	–	–	–	3
438	–	–	–	3
439	–	–	–	3
440	–	–	–	4

<i>n</i>	1993	1998	2012	2021
441	–	–	–	4
442	–	–	–	4
443	–	–	–	3
444	–	–	–	4
445	–	–	–	4
446	–	–	–	3
447	–	–	–	3
448	–	–	–	3
449	–	–	–	4
450	–	–	–	5
451	–	–	–	3
452	–	–	–	3
453	–	–	–	3
454	–	–	–	3
455	–	–	–	4
456	–	–	–	3
457	–	–	–	3
458	–	–	–	3
459	–	–	–	3
460	–	–	–	4
461	–	–	–	3
462	–	–	–	4
463	–	–	–	3
464	–	–	–	4
465	–	–	–	6
466	–	–	–	4
467	–	–	–	3
468	–	–	–	4
469	–	–	–	3
470	–	–	–	5
471	–	–	–	4
472	–	–	–	3
473	–	–	–	3
474	–	–	–	4
475	–	–	–	4
476	–	–	–	3
477	–	–	–	3
478	–	–	–	3
479	–	–	–	3
480	–	–	–	5

<i>n</i>	1993	1998	2012	2021
481	–	–	–	3
482	–	–	–	3
483	–	–	–	3
484	–	–	–	5
485	–	–	–	3
486	–	–	–	4
487	–	–	–	3
488	–	–	–	3
489	–	–	–	3
490	–	–	–	3
491	–	–	–	3
492	–	–	–	3
493	–	–	–	3
494	–	–	–	3
495	–	–	–	4
496	–	–	–	3
497	–	–	–	3
498	–	–	–	3
499	–	–	–	3
500	–	–	–	4
Σ	–	–	–	347

Notes: Solutions above 300 were not included in the 1993, 1998, and 2012 editions.

This section is still in progress. However, since I now have at least three solutions for each number from 401 to 500, I decided to include this section in the 2021 version of the document.

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