RESEARCH ARTICLE | MARCH 27 2024

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AIP Conf. Proc. 3102, 030001 (2024)
https://doi.org/10.1063/5.0199648

Constraints in Math, Division by Zero and Source Code

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Abstract. The article studied the possibility of dividing by zero on the set of so-called aggregate numbers, as well as the possibility of calculating logarithms and exponential expressions with a negative basis, logarithms with sublogarithmic expressions less than zero. So we can enrich mathematics by the numbers that are obtained when dividing by zero. You can work with aggregate numbers like ordinary fractions, applying the same laws to them. The article describes the need to abandon counting sticks to denote mathematical operations and the use of universal letter symbols to expand the boundaries of mathematical consciousness and further expand mathematical operations. Knowing the source code written in letter mathoperations, you can «reverse», flip the code and get the source data, which is important for computer science. This way you can save all the operations performed with the number.

INTRODUCTION

The main constraints in mathematics are division by zero, the obligatory positivity of the radical expression of an even root, the positivity of logarithmic bases and sublogarithmic expressions, division by zero for the tangent and cotangent.

The objectives of this study are to:

- consider the possibility of dividing by zero;
- evaluate the possibility of calculating exponential expressions and logarithms on negative base;
- evaluate the possibility of calculating logarithmic expressions with negative sublogarithmic expressions;
- enter literal mathoperations and source code.

DISCUSSION

Two paradoxes of division by zero are distinguished. When $a \neq 0$, $\frac{a}{0} = b$, then $b \cdot 0 = a$, which leads to logical errors, since no number, when multiplied by 0, gives a real number [1]. If $\frac{a}{0} = 0$, also $0 \cdot 0 = a$, which is also impossible. When $a = 0$, then $\frac{0}{0} = b$, and $0 \cdot b = 0$, which is true for any b and any b can be partial to $\frac{0}{0}$ [2].

Division by Zero

Why do we get a contradiction when dividing by zero? Why is zero different from all other numbers? Let's say that a number when divided by 0 gives some number from some set. Let's call this set «aggregate» S, then $\frac{a}{0} = a_s$ and

Proceedings of the V International Scientific Conference on Advanced Technologies in Aerospace, Mechanical and Automation Engineering
AIP Conf. Proc. 3102, 030001-1–030001-8; https://doi.org/10.1063/5.0199648
Published under an exclusive license by AIP Publishing. 978-0-7354-4904-6/$30.00

$a_s \cdot 0 = a$, $\frac{a}{a_s} = 0$, where a_s - a number from the aggregate set. And when this number is multiplied by 0, the original number a is obtained.

So each number, except zero, can be associated with some number from the aggregate set, which is obtained by dividing the original number by zero. Thus we will enrich mathematics with a set of numbers that are obtained by dividing by zero. Let us give examples of solutions on the set of aggregate numbers. Let $\frac{4}{0} = 4s$ and $\frac{2}{0} = 2s$, while

$4s \cdot 0 = 4$ and $2s \cdot 0 = 2$, then

$$4s+2s=6s;\ \frac{4}{0}+\frac{2}{0}=\frac{6}{0};$$

$$4s-2s=2s;\ \frac{4}{0}-\frac{2}{0}=\frac{2}{0};$$

$$4s\cdot 2s=8s;\ \frac{4}{0}\cdot\frac{2}{0}=\frac{8}{0^2};$$

$$(4s)^2=16s^2;\ \frac{4}{0}\cdot\frac{4}{0}=\frac{16}{0^2};$$

$$\sqrt{36s}=6\sqrt{s};\ \sqrt{\frac{36}{0}}=\frac{6}{0^{\frac{1}{2}}};$$

4s:2s=2; and by division we return to the set of real numbers [3]. Let's prove it: $\frac{4}{0}\div\frac{2}{0}=\frac{4\cdot 0}{0\cdot 2}=\frac{4}{2}=2$.

Thus one can speak of orders of zero. Like all other numbers, we can get 0^2, 0^3, we can take the root of zero. If we represent 0 as a measure, then 0^2 is a large measure, a $\sqrt{0}$ is a smaller measure. Zero in this case is like «emptiness», as a measure of uncertainty that can be accumulated. For calculations with aggregate numbers, you need to count orders of zero [4].

Aggregate numbers can also work with real numbers.

$$4s+2=\frac{4}{0}+2;$$

$$4s-2=\frac{4}{0}-2;$$

$$4s\cdot 2=\frac{4}{0}\cdot 2=\frac{4}{0}\cdot\frac{2}{1}=\frac{8}{0};$$

$$4s:2=\frac{4}{0}:2=\frac{4}{0}:\frac{2}{1}=\frac{4}{0\cdot 2}=\frac{2}{0}.$$

$s=\frac{1}{0}$, and first we work with numbers, and then we «impose» division by zero. You can work with aggregate numbers as with ordinary fractions, applying the same laws to them.

Any number can be represented as: x=a+bs, where a is the real part, b – aggregate.

Let's take a closer look at the problem of zero.

0+0=2·0 – «empty» plus «empty» equals two «empty»;

0-0=*0*– «empty» minus «empty» equals to the «empty» of a smaller order;

0-4·0=-3·0;

$0\cdot 0=0^2$;

0:0=1 or $\frac{0}{0}=1$.

Thus we work with zero as with all other numbers and apply the same calculation laws to it. Now let's look at the «one»:

$$1+1=2;$$
$$1-1=0;$$
$$1\cdot 1=1^2;$$

1:1=*1*– one divide by one equals a unit of smaller order. Numbers under subtraction (0) or under division (1) cannot give themselves, they give numbers of less order.

$$1+\sqrt{1}=2$$

$$1\cdot\sqrt{1}=1^{\frac{3}{2}}$$

$$1^{\infty}=1^{\infty}.$$

On the set of aggregate numbers, you can define polynomials and work with them according to the rule of working with fractions. Let $\frac{x}{0}=xs$; $\frac{y}{0}=ys$.

$$\text{xs+ys=(x+y)s or } \frac{x}{0}+\frac{y}{0}=\frac{x+y}{0};$$

$$\frac{x}{0}-\frac{y}{0}=\frac{x-y}{0};$$

$$\frac{x}{0}\cdot\frac{y}{0}=\frac{x\cdot y}{0^2}=xys^2;$$

$$\frac{x}{0}\div\frac{y}{0}=\frac{x\cdot 0}{0\cdot y}=\frac{x}{y};$$

$$\left(\frac{x}{0}\right)^2=\frac{x^2}{0^2}=x^2s^2;$$

$$\sqrt{\frac{9}{0}}=\frac{\sqrt{9}}{\sqrt{0}}=\sqrt{9s}=3\sqrt{s}\ .$$

The aggregate set is not only numerical, but also alphabetic, i.e. consists not only of numbers, but also of literal expressions divided by 0. On the set of aggregate numbers, two zeros do not need to be defined. Zero remains zero on any set: 5s+0=5s and 5s·0=5.

It is now possible to apply aggregate number theory to trigonometry.

$$tg\alpha=\frac{\sin\alpha}{\cos\alpha};\ tg0°=\frac{\sin 90°}{\cos 90°}=\frac{1}{0}=s;$$

$$ctg\alpha=\frac{\cos\alpha}{\sin\alpha};\ ctg0°=\frac{\cos 0°}{\sin 0°}=\frac{1}{0}=s;$$

If $\frac{2}{0}=2s$, then $\frac{0}{2}=\frac{1}{2s}$, then if we divide 0 by some number a , then we get not 0, but $\frac{1}{as}$. Consider now the indeterminacy $\frac{0}{0}$. If $\frac{0}{0}=0$, then $\frac{0}{0}=\frac{0}{1}$ and 0=1, which is wrong. But if $\frac{0}{0}=1$ and $\frac{0}{0}=\frac{1}{1}$, which is logical and correct. So indeterminacy $\frac{0}{0}=1$ and is no longer indeterminacy because $\frac{a}{a}=1$, $\forall a$, and 0 is the same number as others.

Zero for Physical Quantities

Zero has no practical use. Practical calculations with zero should be avoided. Where in life we multiply by zero, where we divide by zero. Where do we add zero or subtract it? How to multiply by «empty»? How to raise to the power of «empty»? Also, in practice, we do not multiply and divide by one, we do not raise to the first power. These operations have no practical application. Mathematical operations with zero are difficult to verify in practice, they are difficult to imagine, «feel», «check». Therefore they became the cause of constraints in mathematics. Practical calculations with zero are not necessary at all. In fact, we have a separation of practical calculations from theoretical ones, as it should be. Zero remains for theoretical calculations, not for the calculator. For the construction of mathematics as a system of numbers, zero must be saved, but removed from practical calculations, where it is useless. It is necessary to «untie» zero from abstract concepts (see Table 1).

TABLE 1. Zero for physical quantities.

Physical Quantity	Application of Zero
Temperature	Now is zero degrees, and twice warm is also zero
Mass	The mass of this body is zero grams, and twice heavy is also zero
Price	The price is zero rubles, and twice expensive is also zero
Speed	The speed of this body is zero, and twice as fast is also zero
Length, Width, Height	Length is zero cm, and twice as long is also zero
Area, Volume	Area is zero, and twice as much is also zero

Physical quantities cannot be equal to zero. If the length is zero, then the physical body does not exist, if the mass is zero, then the body does not exist too. What is this object whose length is zero? What is the product whose price is zero? Some measurable values cannot be zero, such as weight, length, width, price, etc.

Zero is the beginning of the starting point for physical quantities, which they never reach. Physical quantities cannot have negative values and zero. We can leave negative values for mathematics and calculations. Therefore negative numbers are difficult to understand because they do not correspond to physical quantities such as mass and speed.Zero for physical quantities is the beginning of the origin, so rulers are made with the beginning at zero, without showing a negative half-plane. For physical quantities, you can leave a positive scale starting at zero and calculate on the entire numerical line $(-\infty; +\infty)$.

Logarithms and Exponential Expressions

Let's return to other constraints in mathematics.By definition of the logarithm $\log_a x=b$, $a>0$, $a\neq 1$, $x>0$, the base of the logarithm and the sublogarithmic expression must be positive, and the base must not also be equal to one. Recall also the exponential expression a^x, the base of which must also be positive $a>0$. But we can also raise negative numbers to powers. For example, $(-3)^3=(-3)\cdot(-3)\cdot(-3)=-27$, because exponentiation is multiple multiplication. We can multiply negative numbers many times, which means we can raise them to powers. If we can raise negative numbers to powers, then we can count logarithms by them. So we can also count logarithms from negative bases and sublogarithmic expressions.For example, $\log_{(-3)}(-27)=3$, as $(-3)^3=-27$. This means that we can calculate exponential expressions from negative values and logarithms from negative bases and sublogarithmic expressions, expanding the area of calculation of logarithms and exponential expressions to negative bases, to real numbers [5].

Fractional exponentiation is similar to root computation. For example, $\sqrt[3]{-8}$ and $(-8)^{\frac{1}{3}}$. The first expression equals $\sqrt[3]{-8}=-2$, and the second expression $(-8)^{\frac{1}{3}}$ does not make sense, because we don't exponentiate negative numbers. But these two expressions are equal to each other according to the formula: $\sqrt[n]{a^m}=a^{\frac{m}{n}}$. Solutions to the first expression exist, but there is no solution to the second [6]. But if we accept that the bases of exponential expressions can be negative, then we will equalize these expressions, consider them the same and receive the same answers, as it should be: $\sqrt[3]{-8}=(-8)^{\frac{1}{3}}=-2$; $(-27)^{\frac{2}{3}}=((-27)^{\frac{1}{3}})^2=(-3)^2=9$ or $\sqrt[3]{(-27)^2}=9$.

When a number greater than one in modulo is raised to a positive power, the modulo number increases, and when to a negative power, it decreases and tends to zero.

When raising a number modulo less than one to a positive power, the number modulo decreases and tends to zero, and when to a negative power, the number modulo increases and tends to infinity [7].

Thus, positive and negative powers can be raised to both positive and negative numbers, $\log_{-2}(-32)=5$, because $(-2)^5=-32$. The base of exponential expressions, as well as logarithms, and sublogarithmic expressions can be negative. Logarithmic expressions with one and zero in the base are also possible if we write the powers of sublogarithmic expressions: $\log_1(1)^5=5$, $\log_0(0)^6=6$; $1^x=1^6$, $x=6$; $0^x=0^7$, $x=7$.

Exponential equations can also be considered in negative bases, thereby removing all restrictions from exponential expressions of the form: $a^x=b$.

This means that for logarithmic and exponential expressions $\log_a x=b$ and $a^x=b$ there are no restrictions on bases and sublogarithmic expressions. Can we evaluate expressions like $3^x = -6$ and $x=\log_3(-6)$? Can 3 in some degree equal -6? If $3^x = 6$ and $x=\log_3 6$, then the calculation $x=\log^3(-6)$ also does not contradict the laws of mathematics.$3^x = 6$, so x is some degree to which 3 must be raised to obtain 6. Then $3^x = -6$, then xis some degree to which you have to raise 3 to get -6. Then the following expressions are possible:

$3^x = 6$, then $x=\log_3 6$;

$(-3)^x = 6$, then $x=\log_{(-3)}6$;

$3^x = -6$, $x= \log_3(-6)$;

$(-3)^x = -6$, then $x=\log_{(-3)}(-6)$.

Thus we can raise both positive and negative numbers to the power and get numbers of different signs.

Number Theory

Can operations with zero and one be the same as with all other numbers? The rules of multiplication and division, the rule of variability do not work with zero and one because all mathematical operations modify numbers. For simplicity let's abandon the operations of subtraction and division, because addition can be replaced by subtraction and division by multiplication: a·2= a:(1/2) and +2 =-(-2). We will work only with the operations of addition and multiplication. Zero in addition does not «change», does not «modify» the original number. When all other numbers are added, a new number is obtained (see Table 2).

TABLE 2. Compare addition with zero and any other number.

Adding with Zero	Adding with Any Other Number
0+1=1	5+1=6
0+2=2	5+2=7
0+3=3	5+3=8
0+4=4	5+4=9
0+5=5	5+5=10

$\forall a, a+0=a, a+n=b, n\in(-\infty;0)\cup(0;+\infty)$, where b is some new number equal to b=a+n. Now let's discuss multiplication by zero and one. For simplicity we will assume that a·0=0 (see Table 3).

TABLE 3. Comparison of multiplication by zero, one, minus one and the rest of numbers.

Multiplying by Zero	Multiplying by One	Multiplying by Minus One	Multiplying by Any Other Number
0·1=0	1·2=2	(-1)·2=(-2)	4·2=8
0·2=0	1·3=3	(-1)·3=(-3)	4·3=12
0·3=0	1·4=4	(-1)·4=(-4)	4·4=16
0·4=0	1·5=5	(-1)·5=(-5)	4·5=20
0·5=0	1·6=6.	(-1)·6=(-6)	4·6=24

$\forall a, a\cdot 0=0, a\cdot 1=a, a\cdot(-1)=-a,\ a\cdot k=c, k\in(-\infty;0)\cup(0;1)\cup(1;+\infty)$ where c is some new number equal to $c=a\cdot k$. So multiplying by an infinite set of numbers is different from multiplying by zero, one and minus one. Zero, when multiplied, «zeroes» the number, one does not change the number, minus one simply changes the sign of the number and when multiplying all other numbers, new numbers are obtained.

When multiplied by 10; 100; 1000, etc. we simply add zeros to the numbers, the first («left») parts of the numbers do not change. When multiplied by 11, the single digits become multiple, 2·11=22, 3·11=33, etc.

Multiplication by zero and one does not correspond to a new, «different» number on the set of real numbers. But Table 3 can be rewritten in another form (see Table 4).

TABLE 4. Comparison of multiplication by zero and one with all other numbers, addition with zero.

Adding with Zero	Multiplying by Zero	Multiplying by One	Multiplying by Minus One
0+1=0+1	0·1=0·1	1·2=1·2	(-1)·2=(-1)·2
0+2= 0+2	0·2=0·2	1·3=1·3	(-1)·3=(-1)·3
0+3= 0+3	0·3=0·3	1·4=1·4	(-1)·4=(-1)·4
0+4=0+4	0·4=0·4	1·5=1·5	(-1)·5=(-1)·5
0+5=0+5	0·5=0·5	1·6=1·6	(-1)·6=(-1)·6

Raising to zero always results in 1, although it may be worth writing $a^0 \to 1$. When raised to the first power, the number does not change. When raised to minus one power, we get the inverse number. The remaining powers modify the original numbers. So $\forall a, a^0 = 1, a^1 = a, a^{-1} = \frac{1}{a}, a^k = d, k \in (-\infty;0) \cup (0;1) \cup (1;+\infty)$, where d is some new number equal to $d=a^k$ (see Table 5).

TABLE 5. Comparison of raising to the zero power, to the first, to other powers.

Raising to the Zero Power	Raising to the First Power	Raising to the Minus One Power	Raising to Any Other Power
$2^0=1$	$2^1=2$	$2^{-1}=1/2$	$2^4=2\cdot2\cdot2\cdot2=16$
$3^0=1$	$3^1=3$	$3^{-1}=1/3$	$3^4=3\cdot3\cdot3\cdot3=81$
$4^0=1$	$4^1=4$	$4^{-1}=1/4$	$4^4=4\cdot4\cdot4\cdot4=256$
$5^0=1$	$5^1=5$	$5^{-1}=1/5$	$5^4=625$
$6^0=1$	$6^1=6$	$6^{-1}=1/6$	$6^4=1296$…

Are all numbers to the zero power equal to one? At the same time, $3^0 \to 1$ is slower than $10000^0 \to 1$, $\forall a$, $a^0 \to 1$. Different numbers in a power tending to zero tend to one at different speed. Raising to the zero power is also different from raising to other powers. Calculations from 0 are always different. Zero and one do not meet all the properties of numbers. Zero does not have an opposite number. (+/-1, +/-2, +/-3…), one has.

The division of any number can be replaced by multiplication, $a \div 2 = a \cdot \frac{1}{2}$. And for zero $a \div 0 = a \cdot \frac{1}{0} = as$. The aggregate set solves this problem. To divide by zero, we have created an aggregate set of numbers. So we try to bring zero to all other numbers, to equate mathematical operations with zero to operations with the rest of numbers. In classical mathematics zero has no inverse number and the inverse of one is equal to one itself. If we want to equate zero to the rest of numbers, we can talk about the existence of both +0 and -0. Then +0+(-0) =0. The inverse of 0 is s=1/0.

In this case, zero and one can be «equated» to the rest of the numbers during raising to the power, if we represent the exponentiation of zero and one as follows (see Table 6), count the orders of zero and one.

TABLE 6. Exponentiation for zero and one.

Exponentiation of Zero	Exponentiation of One	Exponentiation of Minus One
$0\cdot0=0^2$	$1\cdot1=1^2$	$(-1)\cdot(-1)=(-1)^2$
$0\cdot0^2=0^3$	$1\cdot1^2=1^3$	$(-1)\cdot(-1)^2=(-1^3)$
$0\cdot0^3=0^4$etc.	$1\cdot1^3=1^4$ etc.	$(-1)\cdot(-1^3)=(-1^4)$ etc.

The rule of variability of multiplication, addition and exponentiation etc. does not work with one and zero. One does not have the properties of variability in exponentiation, and zero - in multiplication, addition and exponentiation. Out of five mathematical operations, zero differs in all five, and one - in three of them. Absolutely all mathematical operations do not work with zero, then zero is not a number at all in the usual sense of this word, and one is a number just partly. Plus/minus one have problems with multiplication and division, which is understandable, because if you take a number once, then you get the number itself. And if the number is taken minus one times, then it will be a reverse number. When adding and subtracting one, we kind of take a step forward or back. Basic mathematical operations do not work with zero. Addition, subtraction, multiplication and division with zero differ from the same operations with an infinite set of other numbers. Addition and subtraction with zero does not change numbers, multiplication and division with zero differ, raising numbers to a zero degree and zero to other degrees raise questions even more (see Table 7).

TABLE 7. Calculations with 0 as with a mathoperator transforming other numbers.

Mathoperations with Zero	Mathoperations with Other Numbers
2+0=2+0	2+4=6
2-0=2-0	2-4=-2
$2\cdot0=2\cdot0$.	$2\cdot4=8$
2/0=2/0=2s	2/4=0,5
$2^0=2^0$	$2^4=2\cdot2\cdot2\cdot2=16$

Can zero be considered a number at all? The answer is no. Zero is not a number in the full sense of this word, zero is «semi-number», «half-number», if we talk about numbers as about «operators», mathematical operations. We say that numbers change, transform other numbers with the help of mathematical operations.

With one and minus one multiplication is problematic, therefore we can write 3·(-1)=3·(-1); 3·1=3·1; 3:(-1)=3:(-1); 3:1=3:1. It is possible to «sew» one and minus one saving the operations performed with the number. When adding, subtracting, multiplying by zero, «new» numbers are not obtained - multiplication by zero, as well as addition and subtraction, does not correspond to a «new» number. Therefore, we leave the result with mathematical operators: 3+0=3+0; 3-0=3-0; 3·0=3·0; 3:0=:0=3s. We can refer to zero as the rest of the numbers, to refer to numbers as «mathematical operators» that convert other numbers using mathematical operations. This is necessary especially for computer science.Do we need an aggregate set at all? 4/0=4/0 - we just can't relate it to some number. And an aggregate set is not needed at all, which is logical because s = 1/0, 4/1=4/1, 4/2=2, 4/0=4/0. Thus, we have expanded the computational operations, including division by zero, without going over to a contradiction, 0/1=0/1; 0·3=3·0; 4:0=4:0. Division by zero does not correspond to any «new» numbers, now the aggregate set corresponds. The aggregate set is a visual effect, not needed at all. Because s=1/0. We have redefined division by zero and are accustomed to working with the new set. But it could not be redefined. If you understand that division by zero and multiplication with it does not correspond to any «new» number. The aggregate set has been introduced for ease of perception [8].

Division by zero, as well as multiplication with it, addition and subtraction does not correspond to a new number, but a mathematical operation occurs, which means that the number must change, as happens with all other numbers. Numbers use mathematical operations to transform other numbers. So we equalized zero with other numbers as much as possible.

Source Code

Our math is based on counting sticks, with which we denote mathematical operations. We don't even have a single designation for many mathematical operations. For example, we do not even have one symbol for the multiplication operation, either «·», or «*», or « × ». Division - either «:», or «/», or « ÷ ». And what will happen when we go through all the combinations of sticks and dots? How will we continue to denote mathematical operations? We need to get away from sticks and dots that limit our mathematical consciousness to further expand mathematical operations. It is possible to use universal letter characters. With numbers, you can get a code in which all operations performed with numbers will be saved. In this case, each mathematical operation corresponds to a certain letter. Let us immediately introduce mathematical operations and their inverses (see Table 8).

TABLE 8. Operations in mathematics and their inverses.

Operation	Reverse Operation
Addition (a)	Subtraction (b)
Multiplication (c)	Division (d)
Degree (f)	Extracting the root from a number (number, exponent of the root) (q) $\sqrt[a]{b}$
Logarithm (l)	Extracting the root of a number (root exponent, number) (h) $\sqrt[b]{a}$
Factorial (g)	Inverse operation, not yet introduced, for example, w

Operations such as a0, b0, c0, d0, f0, as well as c1, d1 and f1 have no practical application. They are meaningless in terms of practice. So you can «sew up» all operations performed with a number. Examples can be written using letters and knowing the result return to the original number. In this case, operations are performed from left to right and brackets are not needed: (9-5):2=9b5d2 [9].

Knowing the source code you can, by reversing, get the original number. Knowing the final result you can get the initial one. Thus the source code allows you to save the original data, which is important for computer science.

Using the source code you can represent rather large expressions: 9-3+4:5+2^4+0=9b3a4d5a2f4a0=256;

7*2-3+2:6+4^2-1-0=7c2b3a2d6a4f2b1b0=143.

From the source code, you can reverse, flip operations and get the original number: 2a4c8d4 12, 12c4d8b4 2. Or 2a5a4 11, 11b4b5 2.You can put a literal correspondence to direct and their inverse operations. First acd (+*/) and then respectively the reverse operations of cdb (*/-). Or aa and inverse bb. If the direct code is from left to right then the reverse code is from right to left. Each direct operation is associated with its inverse. The direct code abc will correspond to the reverse dab: 8a2b4c3 18, and vice versa 18d3a4b2 8.

To equate logarithm with the rest of the mathematical operations, logarithm can be denoted as ℓ. For example, 4ℓ64 equals 3. The base is written to the left of the ℓ, and the sublogarithmic expression on the right, $\log_2 32$=2ℓ32=5; $\log_{32} 2$=32ℓ2=0.2. In the record 12d2a3f2ℓ3 will be 0.25. The source code shows calculations as on the calculator and can be implemented on modern calculators. In alphabetical operations the numbers before and after the alphabetic character are important: (-5)ℓ(-125) is equal to 3, (-5)f3 is equal to (-125). So we are moving away from superscript and subscript characters.

Let's take a closer look at the operations using examples:

2f4b2d2 7; 7c2a2q4 2; operation code fbd and reverse code caq.

5ℓ25c4a3 11; 11b3d4h25 5; operation code ℓca and reverse code bdh.

Extracting the root from a number (number, exponent of the root): $32q5 = \sqrt[5]{32} = 2$.

Extracting the root from a number (root exponent, number): $2h25 = \sqrt[2]{25} = 5$. q and h are different operations.

Letter operations may not necessarily consist of a single letter. Maybe of several.

Everyone knows that when the places of terms or factors change, the sum or product does not change. But with the corresponding reverse the answer changes. 3a4b1c6 36 and reverse 36d6a1b4 3; and 4a3b1c6 36 and reverse 36d6a1b3 4. The order of terms and multipliers is important for the source code.

CONCLUSION

We work with aggregate numbers, which are obtained by dividing the number by zero, as with any fractions according to the same laws. You can calculate exponential and logarithmic expressions with bases less than zero, with negative sublogarithmic expressions. You can also count logarithms and exponential expressions at bases zero and one, if you write down the degrees of these expressions, $\log_1(1)^5=5$ and $\log_0(0)^6=6$. Now the ratio $\frac{0}{0}$ is not an indeterminacy and is equal to a well-defined value $\frac{0}{0}=1$. It is possible to «sew up» all the operations performed with the number in the source code, thereby saving the original data, reverse the code and get the original number.

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