



The Language of Artificial Intelligence and the Mathematics of Letters

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| ARTICLE INFO | ABSTRACT |
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| Published Online: 19 April 2023 | Presentation of a mathematics of letters and a language of letters that will allow an artificial intelligence to learn endlessly and be able to think as we think. With the numbered letters, the information that an artificial intelligence obtains with its artificial senses will not lose its meaning, since through these numbered letters the information can be transformed into numbered words. In this way, each piece of information that an artificial intelligence obtains can be transformed into binary numbers, then into ordinary numbers of the numbered letters, thus being able to form numbered words on individual and global information. Since each artificial sense detects different information, each sense creates its own language, this does not prevent all information from being transformed into numbers. The numbered words that can be formed with the transformations of the information must also be linked to other similar numbered words indexed in a dictionary of numbered words, so that the robot can know the meaning of each information. With the numbered letters, the information that a robot receives can be transformed into numbered words and thus be able to memorize them permanently, thus being able to obtain unlimited wisdom. Through binary numbers obtained from the information of everything linked to binary information memorized in a positive and negative way is how we think. I will also expose, with tables and examples, the addition, subtraction, multiplication and division of the |
| Corresponding Author: Salvador Sanchez-Melgar | letters and a number system of letters from 0 to 27. |
| KEYWORDS: Artificial intelligence, AI, machine language, letter math | |

INTRODUCTION

Why have I created the mathematics of letters and a language of letters that will allow an artificial intelligence to be able to think and acquire unlimited wisdom? Thanks to the creation of the mathematics of letters, I created a language for artificial intelligence. The idea to create the mathematics of the letters was given to me by the creation of a sudoku of letters.

“My self-taught hobby for many years of coming up with new ideas about science, philosophy, games or whatever has led me to come up with many new ideas that I have posted on forums, on my blogs and in my 102 books published on Amazon. One of my last ideas that I created about letter sudoku puzzles led me to create letter math. This idea consisted of creating a 9 x 9 letter sudoku, not 9 letters but all the letters of the alphabet, for this I chose the Spanish alphabet because it had 27 letters and coincided with a third of the 81 boxes that the 9 x 9 sudoku has. 9, I got a perfect sudoku of 81 letters that contained three times the 27 letters of the Spanish alphabet, this prompted me to think about creating a letter math on the 27 letters of the Spanish alphabet.

In the initial months of the year 2022, in my private house located in the countryside in Corbera de l Lobregat (Barcelona), Spain, with the help of the computer I began to create a math of letters similar to the math of numbers in our decimal system from 0 to 9, with the difference that instead of being from 0 to 9 it would have to be from 0 to 27 since the Spanish alphabet consists of 27 letters. In order to do this math I had to use zero in the same way as it is used in the decimal math we know.

I started by creating a math of only letters, but since we are so used to numbers it was very difficult to memorize the letters as if they were numbers, so I decided to list the letters in order so that I could know the numerical meaning of each letter and each group of letters. Then I realized that infinities of new number systems could be created as long as the different symbols necessary for it were found. I also realized that all number systems needed zero to be able to be done.

I made a number system of 27 letters numbered in order, whose enumeration had no end, just like the decimal system from 0 to 9. Then I discovered that thanks to the ordered

enumerations of the letters, the words that were created with these enumerations did not lose their meanings. own meanings, that was because the letters are listed in order. Letters that by removing the numbers, except zero, allowed me to form a numerical system of only letters.

But by leaving the letters without numbers, it was difficult for me to know the numerical meanings of the letters, since I needed time to be able to memorize the letters as if they were numbers, so I created a means that helped me easily find the numerical quantity that belonged to each letter and each group of letters. Then I also realized that with this new number system of letters with fewer symbols I could number larger amounts of things than with the number system of the decimal system.” (melgar, 2022)

The numerical way in which the machines will be able to understand everything through the numbered letters will consist in the fact that the numbers of the letters can also be transformed into binary numbers. Thanks to these and other transformations of letters into numbers, machines will be able to think in a similar way to how people think.

“Discovering that with the enumerations of the letters the information of everything known to which a name has been given did not lose their meanings, helped me to discover that this was very important for artificial intelligence since with the adequate facilities of the numbered letters in a robot with artificial intelligence, with its artificial senses, could acquire information of all kinds and transform that information into binary numbers and then transform it into numerical words. Since almost everything known has been given a name, artificial intelligence could numerically understand the information of everything known in the form of numbered words. By creating the numbered letters, he had discovered the future language of machines.

First, the information obtained by a robot with artificial intelligence would have to be transformed into binary numbers, then converted into ordinary numbers corresponding to the numbering of the numbered letters to finally link this information in the form of numbered words with similar numbered words contained in a dictionary. of meanings of words, with the idea that the robot can understand in numbers the meaning of each piece of information transformed into a numbered word.

Transforming the positive and negative information obtained into a numerical binary is what our thinking does, whether it is information obtained through oral, visual, auditory, sensitive, olfactory or gustatory language. Logically, human living evolution has allowed us to evolve with this method to the current levels.

Through letters and numbered words, the robot would be provided with a more efficient means of transforming information than the one we humans use mentally, since with this means the robot will be able to permanently memorize larger amounts of information than what it can we memorize

The same system can be used to transmit information as to receive it, but in reverse. Processes to which should be added a program that forces robots to respect rules, and to act and respond as programmed.

It does not matter to repeat it again, through the transformations of the information in binary numbers representing positive and negative information of all kinds is how we think. When we see something, the visual language transmits to us a mixture of visual positive and negative energy information that our brain will compare with the visual information that we have memorized, either inherited or from what we have learned, and that visual dictionary memorized binary is the one that will show us the visual information most similar to the one obtained. That way we know what we see; The information obtained by each sense will be treated in the same way, logically each sense has its own informative language, with which the information will be treated the same but depending on the information of each language.

With letter mathematics, any mathematical operation can be performed, with the advantage that since the letters are numbered in order, anything that has a name with the numbered words will become a mathematical numerical name. With the math of letters I did the addition, subtraction, multiplication and division of letters with examples, also creating their corresponding tables.

All the ideas that I expose in this article are published in my book "New math of letters 2nd edition" book published on Amazon.

MATERIALS AND METHODS

How did it occur to me to create the book “New mathematics of letters, triumph with mathematics? where I expose the investigations described in this scientific article. Thanks to my love of creating new ideas, thinking and trying repeatedly, I managed to create a 9 x 9 sudoku with the 27 letters of the Spanish alphabet. Sudoku that came out so perfect that it gave me the idea of creating a math of letters, since I thought that if the 27 letters of the sudoku can be perfectly distributed to make a perfect sudoku of letters because you couldn't do a math of letters with the letters letters. Since the number 27 coincided with a third of the number of sudoku cells, the number of 27 letters of the Spanish alphabet seemed ideal to me to create a math of letters.

I started to do a letter math similar to the decimal number system from 0 to 9 since I found that it couldn't be done any other way, so I created a letter number system that had to start with zero, followed by A representing to 1 and so on until reaching Z, which would be represented by 27; and then continue with A0 that would represent 28, AA to 29, AB to 30 and so on without end.

For this math I decided to choose the capital letters so that I could differentiate them from the lower case. In this way

infinite number systems can be created as long as the different symbols needed for it are found.

As I was creating this math I realized that I needed the numbers to create it more easily, since it was very difficult to do a math of only letters, since we are so used to math of numbers it was difficult to memorize the letters as if they were numbers. By putting the letters numbers in numerical order, I created the number system of the letters.

With any new mathematics that is done, all kinds of mathematical operations can be done, since all mathematics is number systems. With the math of letters I only created the addition, subtraction, multiplication and division of the letters, all created with examples and their corresponding tables.

To do the mathematical operations of the letters without the numbers I had to delete the numbers of the letters, but since I was not familiar with the values of the letters, I had to resort to consulting their enumerations put in numerical order, for this I had to create their corresponding enumerations and tables.

I verified that the results that the mathematics of letters offered me without the decimals coincided perfectly with the results of the mathematics of the decimal system that we know. But not so with decimals, when there are decimals, this is because the decimals of the decimal system from 0 to 9 are numbered from 0 to 9 and the decimals of the letter number system are numbered from 0 to 27. So I did some tables that contemplated the transformations of the letters in their corresponding numbers of the additions, subtractions, multiplications and divisions without decimals and the table of the divisions that were the ones that gave me the most problems since the remainders of the divisions were decimals, I made them adding decimals.

As the numbers have no end, the limitations of the tables have no end, for this reason and for reasons of space I made small mathematical tables.

To learn the mathematics of the letters, the ideal would be to memorize the addition, subtraction, multiplication and division of the mathematics of the letters just as we have memorized part of the mathematics of the decimal system from 0 to 9, in order to familiarize ourselves with that mathematics of letters and not having to query the tables.

I realized that the discovery of the numbered letters in order was very important for artificial intelligence, since with the letters numbered in order an artificial intelligence robot had a very useful means of handling the information in numbers and these in number words of so that the information of everything known could be identified with numbered words. By means of numbered words, whether oral or written, information could be transmitted to the robots without the need to use the programs that are currently used.

Here I present some examples of the mathematical operations of the letters and some mathematical tables.

TRANSLATIONS FROM LETTERS TO NUMBERS S UP TO 83

0, A 1, B 2, C 3 D 4, E 5, F 6, G 7, H 8, I 9, J 10, K 11, L 12, M 13, N 14, Ñ 15, O 16, P 17, Q 18, R 19, S 20, T 21, U 22, V 23, W 24, X 25, Y 26 and Z 27.

A0 28, AA 29, AB 30, AC 31, AD 32, AE 33, AF 34, AG 35, AH 36, AI 37, AJ 38, AK 39, AL 40, AM 41, AN 42, AÑ 43, AO 44 , AP 45, AQ 46, AR 47, AS 48, AT 49, AU 50, AV 51, AW 52, AX 53, AY 54, AZ 55.

B0 56, BA 57, BB 58, BC 59, BD 60, BE 61, BF 62, BG 63, BH 64, BI 65, BJ 66, BK 67, BL 68, BM 69, BN 70, BÑ 71, BO 72 , BP 73, BQ 74, BR 75, BS 76, BT 77, BU 78, BV 79, BW 80, BX 81, BY 82, BZ 83.

| | | | | | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|------------|------------|----------|----------|------------|-------------|
| 1 | 0 0 | TO 1 | B. 2 | C. 3 | D. 4 | AND 5 | F 6 | G. 7 | h 8 | Yo 9 | J 10 | k eleven |
| 2 | A0 28 | AA 29 | AB 30 | AC 31 | AD 32 | AE 33 | AF 3. 4 | AG 35 | oh 36 | AI 37 | AJ 38 | AK 39 |
| 3 | B0 56 | BA 57 | BB 58 | BC 59 | DB 60 | BE 61 | bf 62 | B.G. 63 | BH 64 | BI 65 | B.J. 66 | B.K. 67 |
| 4 | C0 84 | AC 85 | BC 86 | DC 87 | CD 88 | EC 89 | CF 90 | GC 91 | CH 92 | IC 93 | C.J. 94 | ck 95 |

Snippet of table of translations of letters to numbers

| | | | | | | | | | | | |
|----|-----|------|-----|----|-----|------|-----|----|-----|------|-----|
| 0 | 0 | z | 27 | A0 | 28 | A-Z | 55 | B0 | 56 | B.Z. | 83 |
| C0 | 84 | C.Z. | 111 | D0 | 112 | dz | 139 | E0 | 140 | E-Z | 167 |
| F0 | 168 | F.Z. | 195 | G0 | 196 | G.Z. | 223 | H0 | 224 | Hz | 251 |

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| | | | | | | | | | | | |
|-----------|------------|-------------|------------|-----------|------------|-------------|------------|-----------|------------|------------------|------------|
| I0 | 252 | left | 279 | J0 | 280 | JZ | 307 | K0 | 308 | KZ | 335 |
| L0 | 336 | LZ | 363 | M0 | 364 | MZ | 391 | N0 | 392 | N.Z. | 419 |
| Ñ0 | 420 | ÑZ | 447 | o0 | 448 | O.Z. | 475 | P0 | 476 | PZ | 503 |
| Q0 | 504 | QZ | 531 | R0 | 532 | rz | 559 | S0 | 560 | SZ | 587 |
| T0 | 588 | T.Z. | 615 | u0 | 616 | uz | 643 | V0 | 644 | VZ | 671 |
| W0 | 672 | WZ | 699 | X0 | 700 | XZ | 727 | Y0 | 728 | AND Z | 755 |
| Z0 | 756 | ZZ | 783 | | | | | | | | |

Piece of table of translations of letters to numbers of groups of 28 in 28 symbols

sums of letters

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|---------|----|----|-----|-----|--------|--------|--------|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | eleven | 12 |
| 0 | TO | B. | C. | D. | AN D | F | G. | h | Yo | J | k | L |
| TO | B. | C. | D. | AND | F | G. | h | Yo | J | k | L | m |
| B. | C. | D. | AND | F | G. | h | Yo | J | k | L | m | No. |
| C. | D. | AND | F | G. | h | Yo | J | k | L | m | No. | Ñ |
| D. | AND | F | G. | h | Yo | J | k | L | m | No. | Ñ | EITHER |
| AND | F | G. | h | Yo | J | k | L | m | No. | Ñ | EITHER | P |
| F | G. | h | Yo | J | k | L | m | No. | Ñ | EITHER | P | Q |

Piece of letter addition table, works the same as the number addition table

EXAMPLE OF SUM OF LETTERS

To add the letters, if you have not learned to add letters, you must consult the table of the addition of letters.

As examples of sums of letters, we are going to add ABC, which in numbers is 843, and RY, which in numbers is 558.

ABC + RY add up to AUA, which is equal to 1,401.

ABC 843

+RY +558

AUA 1,401

Example of addition of letters, they are added the same as numbers (if we are not familiar with the addition of letters, it

is better to add with numbers transforming the letters into numbers and then transforming them back into letters, consulting the equivalences exposed in the letter equivalence tables in numbers)

LETTERS SUBTRACTIONS

Subtraction of the numbers and letters in the first column on the left are subtracted with the numbers and letters in the first row, above all, your results will be displayed in the cells that intersect the perpendicular lines of the rows and the columns.

| | | | | | | | | | | | |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| | 00 | 1A | 2B | 3C | 4D | 5E | 6F | 7G | 8H | 9I | 10J |
| 0 | 00 | 1A | 2B | 3C | 4D | 5E | 6F | 7G | 8H | 9I | 10J |

| | | | | | | | | | | | |
|----|--|----|-----|-----|-----|-----|---------|-----|---------|---------|------|
| | | | | | | | | | | | |
| 1A | | 00 | 1A+ | 2B+ | 3C+ | 4D+ | 5E + | 6F+ | 7G + | 8H + | 9 I+ |
| 2B | | | 00 | 1A | 2B | 3C | 4D | 5E | 6F | 7G | 8H |
| 3C | | | | 00 | 1A | 2B | 3C | 4D | 5E | 6F | 7G |
| 4D | | | | | 00 | 1A | 2B | 3C | 4D | 5E | 6F |
| 5E | | | | | | 00 | 1A | 2B | 3C | 4D | 5E |
| 6F | | | | | | | 00 | 1A | 2B | 3C | 4D |

Piece of letter subtraction table, works the same as the number subtraction table

BELOW, EXAMPLE OF LETTERS SUBTRACTIONS

BCD minus AAB gives us the result of ABB, it does not matter to repeat it one more time, it must be taken into account that the letters operate the same as the numbers. In subtractions, the subtrahend (the number with the highest value) is always placed above the minuend (the number with the lowest value) and subtraction begins in the right column from column to column, placing the result in order from right to left. If you do not know how to subtract the letters in order to subtract them, you will have to consult the letter

subtraction table, as long as that table contains those amounts to be subtracted.

$$\begin{array}{r} \text{BCD BCD} = 1.656 \\ -\text{AAB AAB} = 814 \\ \hline \text{-----} \\ \text{ABB ABB} = 842 \end{array}$$

Example of subtraction of letters, they are subtracted the same as numbers (if we are not familiar with the subtraction of letters, it is better to subtract with numbers transforming the letters into numbers, according to the equivalences exposed in the tables of equivalences of letters in numbers)

MULTIPLICATION TABLE

| | | | | | | | | | | | | |
|----|----|----|-----|-----|-----|-----|------|------|----------|----------|----------|------|
| 00 | 00 | 1A | 2B | 3C | 4D | 5E | 6F | 7G | 8H | 9I | 10J | 11K |
| 1A | 00 | 1A | 2B | 3C | 4D | 5E | 6F | 7G | 8H | 9I | 10J | 11K |
| 2B | 00 | 2B | 4D | 6F | 8H | 10J | 12L | 14N | 16O | 18Q | 20S | 22U |
| 3C | 00 | 3C | 6F | 9I | 12L | 15Ñ | 18Q | 21T | 24W | 27Z | 30AB | 33AE |
| 4D | 00 | 4D | 8H | 12L | 16O | 20S | 24W | 28A0 | 32A D | 36A H | 40AL | 44YO |
| 5E | 00 | 5E | 10J | 15Ñ | 20S | 25X | 30AB | 35AG | 40AL | 45AP | 50A U | 55AZ |

Letter multiplication table chunk works just like the number multiplication table

BELOW EXAMPLE OF MULTIPLICATION OF LETTERS

AD x X = A00 in numbers would be 32 x 25 = 800, (the symbol between A and O is not an O, it is zero).
AD x X = A00

$$\begin{array}{r} \text{AD AD} = 32 \\ \text{ xX X} = 25 \\ \hline \text{-----} \\ \text{A00 A00} = 800 \quad 32 \times 25 = 800 \end{array}$$

Example of multiplication of letters, it is multiplied the same as numbers (if we are not familiar with the multiplication of letters, it is better to transform the

letters into numbers by consulting the equivalences exposed in the tables of equivalences of letters in numbers)

METHOD TO KNOW THE MEANINGS OF THE LETTERS IN NUMBERS

This method can also be used to know the meanings in letters of very high numerical quantities:

As is already known, the numbering that we know starts from the base of 0 to 9, starting with 0 the first group of a number. With 1 and 0 the second group of two digits will begin (from 10 to 99), the third group of three digits will begin with 1 and two zeros, and so on without end, always starting a new group with one digit. more with the 1 and the zeros that correspond to them.

The same happens with the letters, the first group of one letter starts with 0 to Z, the second group of two letters starts with A and 0 (A0) to ZZ, the third group of three letters will start with the A and two zeros (A00) up to ZZZ, and so on.

As the base of the mathematics of letters is from 0 to Z, each new group contains 28 symbols, 27 in the form of letters plus zero, because from 0 to Z there are 27 letters plus zero, just like the group of 0 to 9 are 10 symbols because they are made up of the numbers from 1 to 9 plus zero.

Each start of each start of each group of letters that starts with one more letter is a multiplication of the start by 28 just as each start of each start of each group of numbers that starts with one more number is a multiplication of the start by 10. A0 in letters is like 10 in numbers.

STEP BY STEP EXPLANATION OF HOW TO FIND QUICKLY THE MEANING IN CYDDH NUMBERS

CYDDH = 2,417,976, to translate this group of letters into numbers I first have to find out what the group of 5 letters equals.

We will begin by explaining how much the beginning of each group with one more letter is equivalent in numbers to the group of 5 letters.

To know the meaning in numbers of the group of letters CYDDH, you must first know the number that is equivalent to each first letter within that group of letters. You have to multiply by 28 each new first letter that is placed within each group of letters. Just like multiplying by 10 each new first number you put into a group of numbers $10 \times 10 = 100$, $100 \times 10 = 1,000$, $1,000 \times 10 = 10,000$, and so on. In the letters it would be $A0 \times A0 = A00$, $A0 \times A00 = A.000$, $A.000 \times A0 = A.0000$, and so on (that is, $28 \times 28 \times 28 \times 28$ and so on depending on the number of symbols that have the group). A0 is 28 in numbers and is the beginning of the group just as 10 is the beginning of the group in numbers.

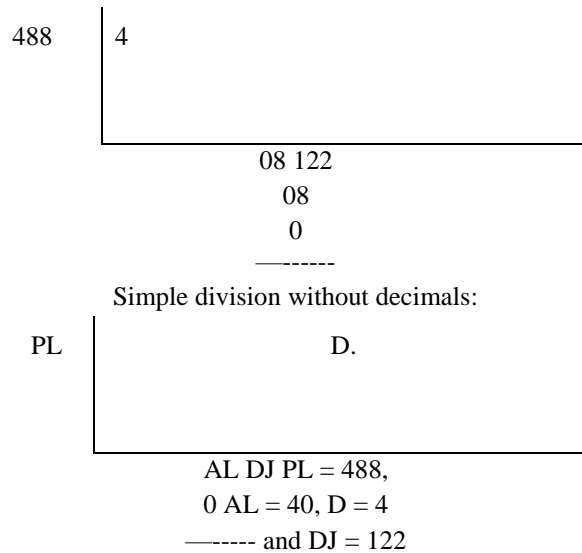
But since the letters have the base 28 (from zero to 27) to know how many numbers each start of a group of letters has with one more letter, each start of the group must be multiplied by 28 and not by 10 as with the numbers. With which, from A to Z it will be 27 plus the total zero 28

symbols. (A represents the number 1 and Z represents 27) A0 is 28, which will be like 10 of the numbers. To find the beginning of three letters you have to multiply $28 \times 28 = 784$ ($A0 \times A0 = A00$, which is like multiplying $10 \times 10 = 100$, the next beginning of four letters is $784 \times 28 = 21,952$ ($A00 \times A0 = A000$), which is like multiplying $100 \times 10 = 1,000$), the next beginning of five letters is $21,952 \times 28 = 614,656$ ($A000 \times A0 = A0000$). Saving the difference that the base of 10 is a base much lower than that of the base 28 that last multiplication would be like multiplying $1,000 \times 10$), and so on, always with the mathematics of letters, you have to multiply by 28, to obtain a group of letters with a letter beginning with one more letter.

As explained, now we know that the number 614.656 is the beginning of a group of five letters in the mathematics of letters, to know the meaning in CYDDH numbers as that beginning of five letters is A0000, you have to multiply the A by three because the letter C is the third letter. The A of A0000 represents 1, the B of B0000 represents 2, the C of C0000 represents 3, if instead of A0000 it were Z0000, we would have to multiply 614.656 by 27, which is the place occupied by the letter Z. Like A0000 is 614,656 multiply $\times 3$ to get the start of C0000 since A is 1 and C is 3 = 1,843,968. With this operation we already have that C0000 is the number 1,843,968, now it is necessary to know the amounts in numbers of the other letters that follow the C (YDDH). Similar operations are done as with C0000 but with one less letter. The A000 is equivalent to 21,592, an amount that represents the beginning of four letters, to this amount you have to multiply 26, which is the place that the letter Y occupies between A and Z. Total $21,592 \times 26 = 570,752$ amount that adds up to $1,843.968 = 2,414,720$. We already have the meaning in numbers of the first two letters C and Y (CY000) now we have to look for the meaning of the third letter D, for this we would have to find out what number is equivalent to D00, since A00 is 784 it is a question multiplying 784 by 4, which is the place in the alphabet that the letter D occupies. Therefore, $784 \times 4 = 3,136$ that is added to the previous sums, the total sum remains as follows: 2,417,856. We already have three letters and their meanings in CYD00 numbers. Since A0 is 28, 28 must be multiplied by the 4 of the other D, $28 \times 4 = 112$, which adds up to 2,417,856, totaling 2,417,968. We already have the total of four letters CYDD0, now we have to know how much the last letter is worth, the letter H is worth 8 because the H occupies the 8th place and it is the last letter to look for. With which, if we add to $2,417,968 + 8 = 2,427,976$, which is equivalent to CYDDH, we effectively obtained the same result when doing the same operations with the mathematics of numbers.

DIVISION OF LETTERS

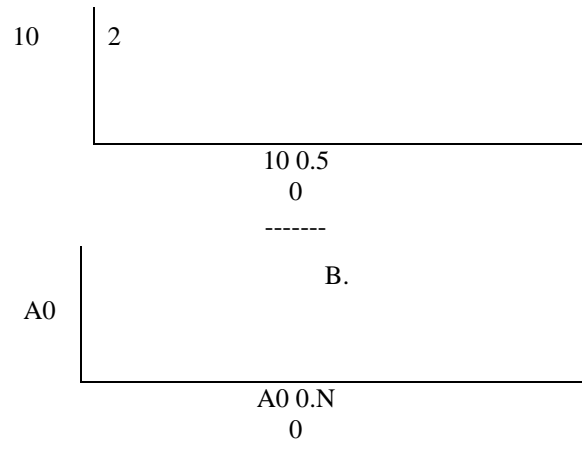
Explanation of how the letters are divided, with examples:



According to the order of the letters converted into numbers, PL would be 488 and D would be 4. Since we are not familiar with the mathematics of letters, I will explain this division with the help of numbers.

The letters are divided just like the numbers with the difference that instead of dividing the numbers the letters are divided. By transforming the numbers into letters we see that 488 is PL and 4 is D. First, divide P by D (P is 17 and D is 4), the result of dividing P by D is D since four times D is 16, which subtracted from P (17) is left over by 1 we will put A in the remainder since A is 1.

Therefore, from this division, D is put in the quotient and one is left over that is put in the remainder. In the rest, the L is lowered and placed next to the A as it would be done with numbers in a number division. Both letters form the letters AL, which in numbers is 40, as J is equivalent to 10, which is the quantity that multiplied by D (4) gives us the best result that matches 40. If another letter had been chosen, it would not match At 40, the appropriate letter that best divides is chosen, as with the numbers, the appropriate number is sought with which it can be divided. So from the result of J x D, which is 40, subtracted by AL, which is 40, will leave zero in the remainder. In the quotient, the result will look like this:



DJ, which is equivalent to 122, which is the same result as if it were divided with numbers.

Since we have not memorized the math of letters, we have no choice but to look in the tables for the meanings in numbers of those letters and then do the division of letters by translating letters into numbers and vice versa. It must be taken into account that the results on the right separated by a comma are negative results and although the math of letters is divided in the same way as that of numbers, and we obtain the same positive results, the operations that arise with the negative results do not coincide between both mathematics.

All mathematics with different mathematical bases will have different symbols but with all the same positive mathematical operations the same positive result will be obtained, only different results will be obtained with negative operations.

Explanation of why the negative results of the divisions of the numbers are different from those of the negative divisions of the letters

To explain this I think it is convenient to first explain the negative division of $1 : 2 = 0.5$.

To divide 1: 2, put a zero to the dividend and a zero and a comma to the quotient, the result is 0.5. See in the example below this division with numbers and with letters.

A=1, A0=28, B=2, N=14, O,N=0.14

As we see in both divisions with the same equivalences, with numbers and with letters, the positive result is the same but not negative, this has an explanation.

Explanation of the division of letters A : B. As we are not familiar with the mathematics of letters to do this division of letters we must convert this division of letters into numbers, for this we will consult the tables and the conversions of letters to numbers.

I will explain how this division is done with letters: first you have to take into account in the division of 1 : 2 that A is equal to 1 and B is equal to 2. And as with the division of numbers, when dividing, a zero is put in the dividend, leaving the dividend thus A0 so that it can be divided by the divisor. Then, in the quotient, a zero and a comma will be put since it is a negative division, since the divisor is greater than the dividend. As when putting the zero to the A, the A has been transformed into A0 (if we consult the conversions of letters into numbers we will see that A0 no longer means 1, the A next to the zero changes, A0 means 28 and the B since it has not been since nothing is still 2.

Now we can divide A0 (28) by B (2) since now A0 is greater than B. Dividing A0 (28) by B(2) gives us N, which is equivalent to 14. And it is so because A0 in numbers it is 28 which when divided by B which is 2 gives us 14 as a result, consulting the conversion table we see that 14 is N, it has its logic since N is in the middle of the alphabet of 27 base 0

letters to 27, which is as if it were half of the base from 0 to 10 that has 5 as its half, that is, that N (14) is equivalent to 5 and -N is equivalent to -5 since both symbols indicate half of their bases). Then, in the division, N is multiplied by B, since N is 14 and B is 2, this multiplication gives us 28, which in letters is A0. This A0 is subtracted from the A0 of the rest and we see that zero remains, therefore the zero is left in the rest. Any result of the division of letters that has decimals the negative numbers of these decimals correspond to your particular math base from 0 to 27.

As I have already verified in previous divisions, a division that is carried out with the same values in letters and in numbers, the same result is obtained, except with the negative results.

Each mathematics, be it numbers, letters or other different symbols, will have its own mathematical bases, that of numbers has the base from 0 to 9, that of letters has the base from 0 to 27, and you can create infinities of mathematics with different types of mathematical bases, all will derive from the same positive mathematics.

To translate the results of the negative quantities that arise from the letters into numbers, the average of each mathematical base would have to be found and adapted. Through mathematical operations, an average could be found in the negative results of both mathematics. This does not mean that the correct negative result is the one presented as proper by the mathematics of each mathematical bas

| | 0 | 1 | 2 | 3 | 4 | 5 |
|---|-----|----|----------|--------------|----------|---------------|
| 0 | 0 | TO | B. | C. | D. | AND |
| 1 | TO | 1A | 0.5 0.N | 0.33 0.II | 0.25 0.G | 0.2 0.EQ |
| 2 | B. | 2B | 1A | 0.66 0.QQ | 0.5 0.N | 0.4 0.KE |
| 3 | C. | 3C | 1.66 A,N | 1A | 0.75 0.T | 0.6 0.WHAT |
| 4 | D. | 4D | 2B | 1.33 A,II | 1A | 0.8 0.UK |
| 5 | AND | 5E | 2.5 B,N | 1.66A, QQ | 1.25A,G | 1A |
| 6 | F | 6F | 3C | 2B | 1.5A,N | 1.2A,EQ |
| 7 | G. | 7G | 3.5C,N | 2.33 B,II | 1.75 A,T | 1.4A,KE |
| 8 | h | 8H | 2D | 2.66B, QQ | 2B | 1.6A,Q |

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| | | | | | | |
|------------|--------|-----|----------|--------------|-----------|----------|
| 9 | Yo | 9I | 4.5D,N | 3C | 2.25 B,G | 1.8A,UK |
| 10 | J | 10J | 5E | 3.33C,I I | 2.5 B,N | 2B |
| eleven | k | 11K | 5.5 IN | 3.66C, QQ | 2.75 B,T | 2.2B,EQ |
| 12 | L | 12L | 6F | 4D | 3C | 2.4B,KE |
| 13 | m | 13M | 6.5,F,N | 4.33 D,II | 3.25C,G | 2.6 B,QU |
| 14 | No. | 14N | 7G | 4.66D, QQ | 3.5C,N | 2.8B,UK |
| fifteen | Ñ | 15Ñ | 7.5G,N | 5E | 3.75C,T | 3C |
| 16 | EITHER | 16O | 8 a.m. | 5.33 E,II | 4D | 3.2C,EQ |
| 17 | P | 17P | 8.5H,N | 5.66 E,QQ | 4.25D,G | 3.4C,KE |
| 18 | Q | 18Q | 9 I | 6F | 4D,N | 3.6 C,QU |
| 19 | R. | 19R | 9.5 I.N | 6.33F,I I | 4.75D,T | 9.5C,EU |
| twenty | S | 20S | 10 J | 6.66F, QQ | 5E | 4D |
| twenty-one | you | 21T | 10.5 J.N | 7G | 5.25E,G | 4.2D,EQ |
| 22 | OR | 22U | 11K | 7.33G,I I | 5.5 E,N | 4.4D,KE |
| 23 | V | 23V | 11.5K,N | 7.66G, QQ | 5.75 E.T. | 4.6 D,WH |
| 24 | W | 24W | 12L | 8 a.m. | 6F | 4.8D,UK |
| 25 | X | 25X | 12.5L,N | 8.33 H,II | 6.25F,G | 5E |
| 26 | AND | 26Y | 13M | 8.66H, QQ | 6.5F,N | 5.2E,EQ |
| 27 | z | 27Z | 13.5 M.N | 9 I | 6.75F,T | 5.4 US |

Piece of mixed table to divide numbers and letters with their corresponding decimals.

Keep in mind that this table serves as a mixed table in which you can see the divisions of letters with numbers and vice versa. The results of the divisions in letters and numbers are

displayed in the same cell with their corresponding decimals in numbers and letters. To know the result of a division, you have to look for the perpendicular of the number and the letter of the row above that coincides with the number and the letter of the column on the left.

Divided by 1 and A Divided by 2 and B

| | | | | | | | | | | | | | |
|--------|---------|---|--------|---|----------------|---------|----------------|----------------|---|----|---|--------|-----|
| 0 | 0 | 1 | T O | = | 0 | | 0 | 0 | 2 | B. | = | 0 | 0 |
| 0 | 0 | 1 | T O | = | 0 | 0 | 0 | 0 | 2 | B. | = | 0 | 0 |
| 1 | TO | 1 | T O | = | 1 | TO | 2 | B. | 2 | B. | = | 1 | TO |
| 2 | B. | 1 | T O | = | 2 | B. | 4 | D. | 2 | B. | = | 2 | B. |
| 3 | C. | 1 | T O | = | 3 | C. | 6 | F | 2 | B. | = | 3 | C. |
| 4 | D. | 1 | T O | = | 4 | D. | 8 | h | 2 | B. | = | 4 | D. |
| 5 | AN D | 1 | T O | = | 5 | AN D | 10 | J | 2 | B. | = | 5 | AND |
| 6 | F | 1 | T O | = | 6 | F | 12 | L | 2 | B. | = | 6 | F |
| 7 | G. | 1 | T O | = | 7 | G. | 14 | No. | 2 | B. | = | 7 | G. |
| 8 | h | 1 | T O | = | 8 | h | 16 | EIT HE R | 2 | B. | = | 8 | h |
| 9 | Yo | 1 | T O | = | 9 | Yo | 18 | Q | 2 | B. | = | 9 | Yo |
| 10 | J | 1 | T O | = | 10 | J | tw en ty | S | 2 | B. | = | 10 | J |
| eleven | k | 1 | T O | = | ele ve n | k | 22 | OR | 2 | B. | = | eleven | k |
| 12 | L | 1 | T O | = | 12 | L | 24 | W | 2 | B. | = | 12 | L |
| 13 | m | 1 | T O | = | 13 | m | 26 | AN D | 2 | B. | = | 13 | m |
| 14 | No. | 1 | T O | = | 14 | No. | 28 | A0 | 2 | B. | = | 14 | No. |

| | | | | | | | | | | | | | |
|------------|----------------|---|--------|---|----------------------------|----------------|-----------|---------------|---|----|---|------------|--------|
| fifteen | Ñ | 1 | T O | = | fif tee n | Ñ | 30 | AB | 2 | B. | = | fifteen | Ñ |
| 16 | EI TH ER | 1 | T O | = | 16 | EI TH ER | 32 | AD | 2 | B. | = | 16 | EITHER |
| 17 | P | 1 | T O | = | 17 | P | 3. 4 | AF | 2 | B. | = | 17 | P |
| 18 | Q | 1 | T O | = | 18 | Q | 36 | oh | 2 | B. | = | 18 | Q |
| 19 | R. | 1 | T O | = | 19 | R. | 38 | AJ | 2 | B. | = | 19 | R. |
| twenty | S | 1 | T O | = | tw en ty | S | 40 | TO TH E | 2 | B. | = | twenty | S |
| twenty-one | you | 1 | T O | = | tw en ty- on e | you | 42 | AN | 2 | B. | = | twenty-one | you |
| 22 | OR | 1 | T O | = | 22 | OR | 44 | AO | 2 | B. | = | 22 | OR |
| 23 | V | 1 | T O | = | 23 | V | 46 | AQ | 2 | B. | = | 23 | V |
| 24 | W | 1 | T O | = | 24 | W | 48 | AC E | 2 | B. | = | 24 | W |
| 25 | X | 1 | A A | = | 25 | X | fif ty | AU | 2 | B. | = | 25 | X |
| 26 | AN D | 1 | T O | = | 26 | AN D | 52 | AW | 2 | B. | = | 26 | AND |
| 27 | z | 1 | T O | = | 27 | z | 54 | OH | 2 | B. | = | 27 | z |

Piece of a typical division table, transformed into a mixed table of dividing letters and numbers without decimals

RESULTS

Demonstration of how to do a math of letters using the Spanish alphabet of 27 letters. In the same way, infinities of mathematics can be created as long as the different symbols necessary for it are found. Mathematics that can be endlessly enumerated and with which all kinds of mathematical operations can be done. In this article I have only created the addition, subtraction, multiplication and division of letters with their corresponding tables and mathematical examples.

Since I needed to list the letters of the letter math in order, since it was difficult to memorize the letters since we are used to the math of our decimal number system from 0 to 9, I have created a number system of the letters that prevent words from losing their meanings. Thanks to the fact that words can be numbered in order, all information can be transformed into numbered words, since almost everything we know has been given a name. The language of the numbered words may be used for an artificial intelligence to acquire information about everything known through the numbered words. Of course,

for this you would have to install a word dictionary so that the numbered words can be identified and know their meanings. Through numbered words, an artificially intelligent robot could acquire unlimited information and could develop ever greater intelligence.

DISCUSSION

In this article I show the creation of a mathematics of letters with examples and tables corresponding to addition, subtraction, multiplication and division, as well as a language of letters numbered in order that allows the information of everything known not to lose their meanings in the form of numbered words.

Language of letters that could be used for an artificial intelligence to acquire unlimited information and to endlessly develop its intelligence.

Although the math of letters is hard to learn because we are familiar with our decimal math. If it were learned, it would be more fun mathematics than numbers. Furthermore, the mathematics of letters with fewer numbers of symbols encompasses more numbers of enumerations. Not having tried anything more than addition, subtraction, multiplication and division with their corresponding tables and examples.

With these mathematics, I don't know what they would do if with algebra or other mathematics. What is clear is that with the mathematics of letters you can do any type of mathematical operations since the letters of this mathematics are as if they were numbers. (Melgar, Nueva matemática de letras 2ª edición, 2022)

Thanks to the mathematical creation of the letters and having to enumerate them to facilitate their creation, I have created the language of numbered letters. Because of this, and as almost everything known has been given a name, everything that has a name acquires a numerical name. As all computer science is based on binary numbers which can be transformed into ordinary numbers, when creating the numerical words of almost everything known, this numerical information can be easily handled with computer systems, with which, the

language of letters numbered will be very important for an artificial intelligence.

Presumably, the installation and correct operation of this language of numbered letters in a robot with artificial intelligence will not be easy, but its installation is feasible with current means. For its installation, not only would it be necessary to create a program with a large number of ordered enumerations of numbered letters, it would also be necessary to make it possible for the information that a robot with artificial intelligence obtains with any of its artificial senses to be transformed into binary information, and these to be transformed in numbers, and these transform them into numbers of the numbered words whose meanings correspond to the real meanings of the information obtained. It would also be necessary to program a dictionary of numbered words with their corresponding numerical meanings, so that the numbered words of the information obtained have a place where they can be taken to find out the numerical meaning of each numbered word obtained. In this way, through numbers corresponding to numbered words, the robot could know what each information obtained means.

Through infinities of binary numerations on the positive and negative energy of the information obtained linked to the infinities of memorized binary information on the negative and the positive is how our thinking handles information.

CONFLICT OF INTERESTS

The author declares that there are no conflicts of interest

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