# NUMBER SYSTEM IN BASE ONE HUNDRED 

Juan Elías Millas Vera．${ }^{1}$

## Zaragoza（Spain）

June 2023

## 0－Abstract：

In this paper I show my work on the possibility of make a number system in base one hundred， showing the table of possible assignations for every symbol and showing examples and conclusions．

## 1－Introduction：

Since Mesopotamian times we are developing new writing systems and that includes numeric writing systems．Sumerian people only use one symbol（the mark of the little stick），and the combinations of that marks used to tell the reader which number in base 60 is it．Classic Egyptians went further and create a bunch of symbols for different quantities．Then Greeks assign nine symbols（from 1 to 9 ）and nine symbols for the tens（from 10 to 90 ）and some other symbols，which with their primitive positional system allowed them to be very accurate．In my opinion Romans took a step back，they reduced the number of symbols（they had symbols for $1,5,10,50,100,500$ ， 1000 and combinations of that symbols），Romans were not a scientific civilization．At the ending of Middle Ages the Indian－Arabic symbols appear and more or less complex is the number system till today．
It is obvious that the binary system is useful in the connection between human and machines，but this particular paper will introduce not only usefulness，it introduce creativity and complexity of our actual and future mathematics．With the introduction of base－100 digit system we can see the next step on the complexity of the numerical systems．

## 2－Tables and examples：

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | － | a | b | C | d | e | f | g | h | i |
| 2 | $\square$ | $\alpha$ | $\beta$ | Y | $\delta$ | $\varepsilon$ | $\varsigma$ | $\zeta$ | $\eta$ | $\theta$ |
| 3 | － | 1 | к | $\lambda$ | $\mu$ | $v$ | $\xi$ | o | $\pi$ | 4 |
| 4 | 4 | א | ב | ג | 7 | ה | 1 | ¢ | $\Pi$ | ע |
| 5 | V | ， | 7 | ל | $\square$ | ］ | 0 | ע | ๆ | $\gamma$ |
| 6 | W | A | B | C | D | E | F | G | H | I |
| 7 | X | J | K | L | N | M | O | P | Q | R |
| 8 | Y | － | － | $三$ | 四 | 五 | 六 | 七 | 八 | 九 |
| 9 | Z | $\Phi$ | $\Omega$ | $\Pi$ | $\Gamma$ | $\Delta$ | $\Sigma$ | $\Psi$ | $\Xi$ | $\Lambda$ |

[^0]| $00=0$ | $01=1$ | $02=2$ | $03=3$ | 04＝4 | 05＝5 | 06＝6 | $07=7$ | 08＝8 | 09＝9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $10=$－ | $11=\mathrm{a}$ | 12＝b | $13=$ c | 14＝d | $15=\mathrm{e}$ | 16＝f | 17＝g | 18＝h | 19＝i |
| 20＝■ | $21=\alpha$ | $22=\beta$ | $23=\gamma$ | $24=\delta$ | $25=\varepsilon$ | 26＝¢ | $27=\zeta$ | $28=\eta$ | 29＝$\theta$ |
| $30=$ | $31=1$ | 32＝к | 33＝$\lambda$ | $34=\mu$ | 35 $=$ v | 36＝§ | $37=0$ | 38＝п | 39 $=4$ |
| $40=$ ¢ | א | ב＝42 | $43=\lambda$ | 44＝ | ה＝45 | 46＝1 | 47＝ヶ | 48＝ח | 49＝4 |
| $50=\mathrm{V}$ | 51＝ | $52=\rceil$ | 53＝ | 54＝0 | 55＝3 | 56＝0 | －57＝ע | 58＝ๆ | $59=\gamma$ |
| $60=W$ | 61＝A | $62=$ B | 63＝C | 64＝D | 65＝E | 66＝F | 67＝G | 68＝H | 69＝I |
| $70=\mathrm{X}$ | $71=\mathrm{J}$ | $72=\mathrm{K}$ | $73=\mathrm{L}$ | 74＝N | $75=$ M | $76=0$ | $77=\mathrm{P}$ | $78=$ Q | $79=\mathrm{R}$ |
| $80=\mathrm{Y}$ | 81＝- | 82＝二 | 83＝三 | 84＝四 | 85＝五 | 86＝六 | $87=$ 七 | 88＝八 | 89＝九 |
| $90=\mathrm{Z}$ | $91=\Phi$ | $92=\Omega$ | 93＝П | $94=\Gamma$ | $95=\Delta$ | $96=\Sigma$ | $97=\Psi$ | $98=\Xi$ | 99＝ |

Examples：
5050＝VV，256＝20，
123456789＝1 ההG 九
Basic arithmetic：
$\gamma^{+} \gamma^{=1}$
$5 x 5=\varepsilon$
B－■
$\mathrm{V} \div 2=\varepsilon$

## 3－Conclusions：

In Occident we are used to teach our most little members of our society the $24-28$ symbols of the alphabet in their process to learn to read，in my opinion it will be possible to occur in a future time that the young people（maybe in a teenages time），will be able to memorize the one hundred symbols for a more complex number system，only time will tell us if this idea is useful or just a curiosity of recreational mathematics．

## 4－References：

## －Millas Vera，Juan Elías－Multiplication tables from 1 to 10 in different number systems． （https：／／vixra．org／pdf／2207．0123v1．pdf）

－https：／／en．wikipedia．org／wiki／Numeral＿system


[^0]:    1 juanmillaszgz＠gmail．com

