

New regular numeral symbols from one to septillion

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Abstract: Some iconic symbols representing numbers are more animated, picturesque, and impressive. Here we describe a kind of new numeral symbols from one to septillion. These symbols are regular and simple. Meanwhile it is easy to write and remember these number symbols. They are composed of 27 basic components. After these basic components are regularly combined, simple and effective numeral symbols from one to septillion can be generated. They might be used in games, movies, animations, computer science and even in other arts.

Key words: Numbers; Numeral symbol; Digital arts

People in ancient times often used some complicated symbols to represent numbers. The development of numeral symbols went through a process from complex to simple (Cajori, 1928; Piercy, 2013). Up to now, the most commonly used number symbols are Arabic numerals (Lumpkin & Strong, 1995). However, some iconic symbols representing numbers are more animated, picturesque, and impressive. These symbols might be used in games, movies, animations, computer science and even in other arts.

Here we describe a kind of new numeral symbols from one to septillion. These symbols are regular and simple. Meanwhile it is easy to write and remember these number symbols. They are composed of 27 basic components. After a regular combination, simple and effective numeral symbols from one to septillion can be generated.

1. Basic components

Here 27 basic components are used to constitute all symbols (Figure 1 and Figure 2, in blue box).

(1) The basic components from 1 to 9 are described as follows:

One dot represents 1. Two dots represent 2, and one line represents 3. A line plus a dot represents 4, a line plus two dots represent 5, and two lines represent 6. Two lines plus one dot represent 7, two lines plus two dots represent 8, and three lines represent 9 (Figure 1).

(2) The basic components of integers from 10 to 90 are described as follows:

A triangle represents 10, a circle represents 20, a rectangle represents 30, the right arrow represents 40, the double right arrow represents 50, the less-than sign represents 60, the greater-than sign represents 70, the left square bracket represents 80, and the right square bracket represents 90 (Figure 1).

(3) The basic components that represent hundred, thousand, million, billion, trillion, quadrillion, quintillion, sextillion and septillion are described as follows (Figure 2):

Square brackets represent 100. Braces represent thousand (kilo, k, 10^3). Two rectangles that intersect horizontally and vertically represent million (Mega, M, 10^6). Two ovals that intersect horizontally and vertically represent billion (Giga, G, 10^9). A pentagram represents trillion (Tera, T, 10^{12}). An up arrow and a right arrow crossing horizontally and vertically represent quadrillion (Peta, P, 10^{15}). An up double arrow and a right double arrow crossing horizontally and vertically represent quintillion (Exa, E, 10^{18}). A right double arrow and a two-way double arrow crossing horizontally and vertically represent sextillion (Zetta, Z, 10^{21}). Two two-way double arrows that intersect horizontally and vertically represent one septillion (Yotta, Y, 10^{24}).

2. Rules of combination

(1) Through combining symbols representing integers from 10 to 90 and symbols standing for numbers from 1 to 9 correspondingly, symbols for numbers from 11 to 99 can be generated. (Figure 1).

(2) With symbols standing for numbers from 1 to 99 added into the two square brackets, symbols representing numbers from 101 to 199 can be formed (Figure 2).

(3) Symbols for integers from 200 to 900 and from 2000 to 9000 can be constituted by combining the two square brackets and the two braces respectively with symbols for numbers from 1 to 9 (Figure 2).

(4) The braces crossed by symbols for integers from 10 to 100 respectively can make up symbols representing numbers from 10k to 100k (Figure 2).

In summary, these new number symbols are not only regular, simple and easy to write and remember, but also are more animated, picturesque and impressive. They might be used in games, movies, animations, computer science and even in other arts.

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Figure legends

Figure 1. New numeral symbols for 1 to 99. The symbols in the blue box represent the basic elements.

Figure 2. New numeral symbols from 100 to septillion. The symbols in the blue box represent the basic elements.










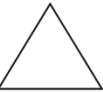
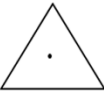
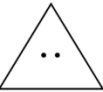

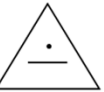



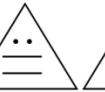

















































































Basic components	 1	 2	 3	 4	 5	 6	 7	 8	 9
 10	 11	 12	 13	 14	 15	 16	 17	 18	 19
 20	 21	 22	 23	 24	 25	 26	 27	 28	 29
 30	 31	 32	 33	 34	 35	 36	 37	 38	 39
 40	 41	 42	 43	 44	 45	 46	 47	 48	 49
 50	 51	 52	 53	 54	 55	 56	 57	 58	 59
 60	 61	 62	 63	 64	 65	 66	 67	 68	 69
 70	 71	 72	 73	 74	 75	 76	 77	 78	 79
 80	 81	 82	 83	 84	 85	 86	 87	 88	 89
 90	 91	 92	 93	 94	 95	 96	 97	 98	 99

Figure 1. New numeral symbols for 1 to 99. The symbols in the blue box represent the basic elements.

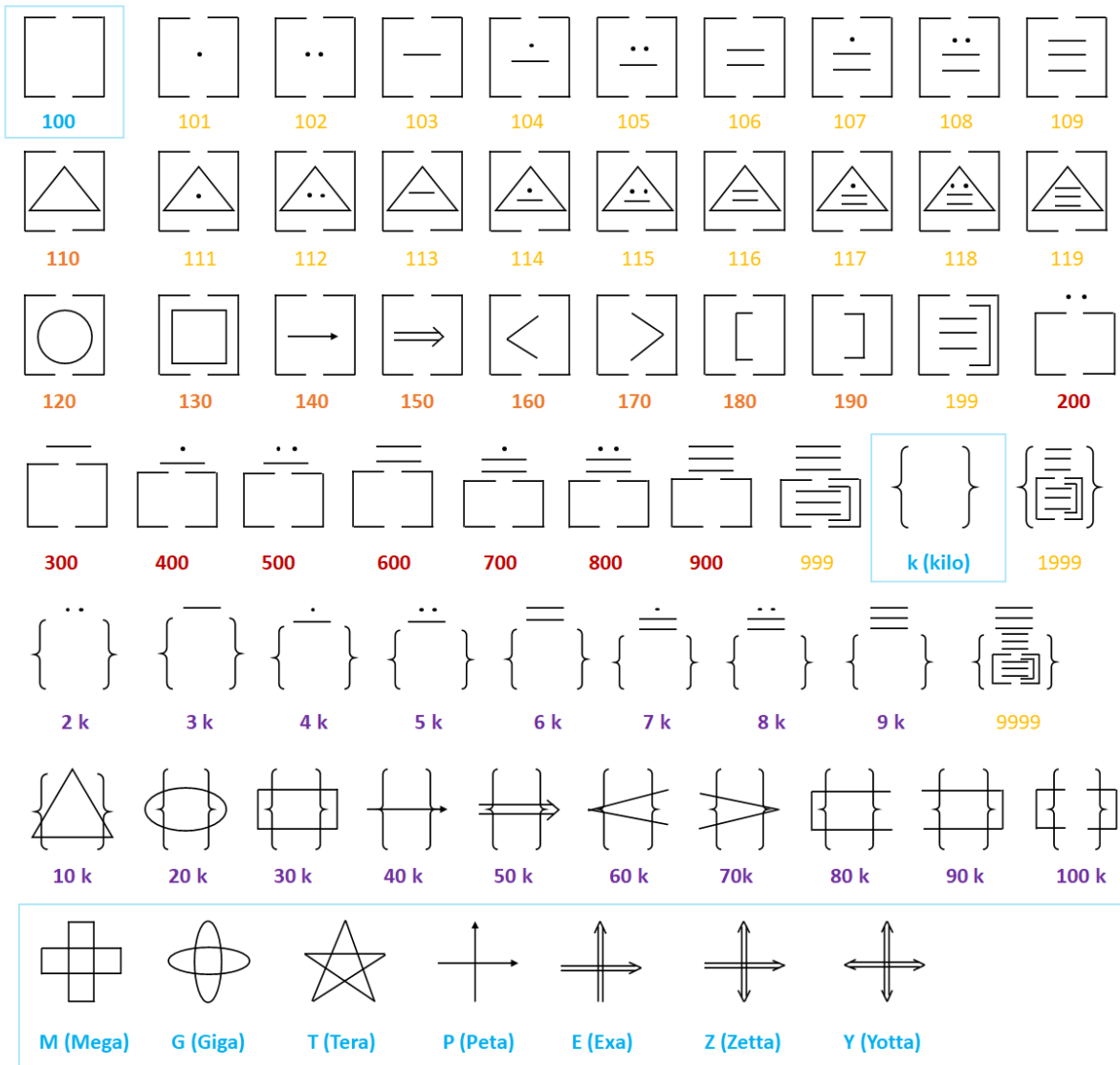


Figure 2. New numeral symbols from 100 to septillion. The symbols in the blue box represent the basic elements.