

Toki pona new number system

V 0.09alpha

20240309 Saturday

Vocabulary

The ideas for the choice of the names are indicated between square brackets []

1	<i>wan</i>	1	<i>one</i>
2	<i>tu</i>		<i>two</i>
3	<i>sin</i>	└┐	<i>three [3 lines]</i>
4	<i>lipu</i>	□	<i>four [4 sides]</i>
5	<i>luka</i>	↷	<i>five</i>
6	<i>pipi</i>	≡	<i>six [6 elements]</i>
7	<i>len</i>	𐀓	<i>seven [4 sides + 3 lines]</i>
8	<i>musi</i>	∞	<i>eight [two circles look a kind of 8]</i>
9	<i>suli</i>	√	<i>nine [the "big" digit]</i>
10	<i>sewi</i>	⤴	<i>10 (base) followed by integer powers (1 is implicit): 2, 3, 4,... [raise]</i>

20	<i>tu sewi</i>	◡	<i>two * ten</i>
30	<i>sin sewi</i>	└┐◡	<i>three * ten</i>
100	<i>sewi tu</i>	◡	10^2
300	<i>sin sewi tu</i>	└┐◡ 	<i>three * ten²</i>
1000	<i>sewi sin</i>	◡└┐	10^3
+	<i>en</i>	+	<i>addition</i>
-	<i>weka</i>	×	<i>negative [subtract]</i>
.	<i>sike</i>	◎	<i>separator for decimal part</i>

This system is intended as a way of **reading** decimal numbers written with the digits 0 to 9 and included in toki pona texts. It is not intended as a replacement of the current system.

Non-additive numbers

Numbers are *non-additive* by default

120 = *wan tu ala*

2024 = *tu ala tu lipu*

Numbers as powers of 10

1000 = 10^3 = *sewi sin*

10 000 = 10^4 = *sewi lipu*

...

$$1\,000\,000\,000 = 10^9 = \textit{sewi suli}$$

Composed numbers

The number to the left of *sewi* has multiplicative value.

The additive value of a number (sequence) is stated explicitly with *en*.

$$4\,000\,000\,012 = 4 \cdot 10^9 + 12 = \textit{lipu sewi suli en wan tu}$$

Decimal numbers

$$3.14 = \textit{sin sike wan lipu}$$

Numbers with negative exponents

$$6.62 \times 10^{-34} = \textit{pipi sike pipi tu sewi weka sin lipu}$$

Dates

US system

$$\text{May 12, 2024} = \textit{tenpo mun luka tenpo suno wan tu tenpo sike tu ala tu lipu}$$

ISO 8601 system

$$2024-05-12 = \textit{tenpo sike tu ala tu lipu tenpo mun luka tenpo suno wan tu}$$