Oneiric Numbers

Hypersurreal • 6 Dec 2023

> Note that ↑ is not a number: it is the value of a game, which is a more subtle concept. Also note that $\frac{1}{\uparrow}$ is not defined since it would be bigger than all surreal numbers and there are no such numbers. (In fact, it does exist but is one of the Oneiric numbers.)
>
> More Infinite Games - **Conway**

Given

$$+_0 = \{0||0|0\} = \{0|*\} = \uparrow$$

$$+_{\text{on}} = \{0||0|\text{off}\} = \text{pip}_0 = \text{tiny}$$

$$\text{over} = \frac{1}{\text{on}}$$

Consider an inversion such that

$$\text{on} = \frac{1}{\text{over}}$$

$$\frac{1}{\uparrow} = \frac{1}{+_0} = I$$

$$\frac{1}{+_{\text{on}}} = \frac{1}{\text{tiny}} = \text{huge}$$

Define $\mathbb{O}$ne(iric #s) as the domain of games from $\text{massive}(-\text{huge}) \to \text{huge}$:

$$\mathbb{O}\text{ne} = \{huge|massive\}$$