Definition: Dark numbers are numbers that cannot be chosen as individuals.

Example: All \( \aleph_0 \) unit fractions \( 1/n \) lie between 0 and 1. But not all can be chosen as individuals.

Proof of the existence of dark numbers.

Let \( \text{SUF}(x) \) be the Set of Unit Fractions in the interval \((0, x)\) between 0 and \( x \in (0, 1] \).

Between two adjacent unit fractions there is a non-empty interval defined by

\[
\forall n \in \mathbb{N}: 1/n - 1/(n+1) = 1/(n(n+1)) > 0
\]

In order to accumulate a number of \( \aleph_0 \) unit fractions, \( \aleph_0 \) intervals have to be summed.

This is more than nothing.

Therefore the set theoretical result

\[
\forall x \in (0, 1]: |\text{SUF}(x)| = \aleph_0
\]

cannot be correct.

Nevertheless no real number \( x \) with finite \( \text{SUF}(x) \) can be shown. They are dark.