

Re: An uncountable countable set

Source: <http://sci.tech-archive.net/Archive/sci.math/2006-08/msg01695.html>

- *From:* Franziska Neugebauer <Franziska-Neugebauer@xxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Fri, 18 Aug 2006 14:36:45 +0200
-

mueckenh@xxxxxxxxxxxxxxxxxxxx wrote:

Franziska Neugebauer schrieb:

mueckenh@xxxxxxxxxxxxxxxxxxxx wrote:

Franziska Neugebauer schrieb:

mueckenh@xxxxxxxxxxxxxxxxxxxx wrote:

An infinite sum of 1's is not infinite?

$$\lim_{n \rightarrow \infty} \sum_{i=1}^n 1 = \lim_{n \rightarrow \infty} n = \text{def } L$$

There is no such L in \mathbb{N} .

Correct.

The antecedent is true.

Therefore there are not infinitely many difference[s] of 1 between natural numbers.

Your consequent is proven false (see below). Therefore your implication is false, too.

You are in error.

Re: An uncountable countable set

Where precisely is the error?

You just proved it to be true.

You may "just" as well prove the opposite. Please do so.

The set of natural numbers (i.e., finite numbers n , i.e., numbers with finitely many differences of 1 between 1 and n) does not yield infinitely many differences of 1.

This is a reit