

Re: A consideration concerning the diagonal argument of G. Cantor

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- *From:* Julio Di Egidio <julio@xxxxxxxxxxxxxx>
 - *Date:* Fri, 16 May 2008 09:21:04 EDT
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Tim Little wrote:

On 2008-05-16, Julio Di Egidio <julio@xxxxxxxxxxxxxx>
wrote:

Would I be correct in saying that, within /my/

system

$$\lim_{n \in [1, \infty)} [1/n, 1] = [0, 1]$$

To my knowledge, you have never formulated your system. Hence I find it difficult to believe that you could expect anybody else to know whether any given property is true in your system or not.

Fair enough (above all if you snip all the rest).

So, let's restate it:

Within \mathbb{N}^* (that is, $\mathbb{N} \cup \{\infty\}$):

$$n = \infty \Rightarrow [1/n, 1] = [0, 1]$$

Within \mathbb{N} :

$$n \rightarrow \infty \Rightarrow [1/n, 1] = (0, 1] \rightarrow [0, 1]$$

Although it might still need polishing, it should hold for any system that supports infinity (finite induction) and transfinite infinity (transfinite induction).

And, of course, that too might need polishing... but, let's see what comes next.

Re: A consideration concerning the diagonal argument of G. Cantor

In any case, please note: no need to know about /my/ system. (Yet, for the chronicle, that open interval has still no place in it, and I am putting it in just for reference.)

-LV

- Tim