

Re: Uncountable sets in CZF?

Source: <http://sci.tech-archive.net/Archive/sci.math/2004-09/1481.html>

From: Ross A. Finlayson (raf_at_tiki-lounge.com)

Date: 09/08/04

Date: 7 Sep 2004 18:24:33 -0700

kramsay@aol.com (KRamsay) wrote in message
news:<20040907121638.22164.00000614@mb-m05.aol.com>...
> *In article <3c6b9c1e.0409030813.584832fe@posting.google.com>*,
> *raf@tiki-lounge.com (Ross A. Finlayson) writes:*
> *|Keith presented a statement that he could map a proper subset of the*
> *|naturals bijectively to the reals. What's the deal with that?*
>
> *Do you think you're quoting me at all accurately here? You do agree*
> *that you should attempt to, don't you?*
>
> *Keith Ramsay*

Yes, I think you claimed there was a surjection from some proper subset of \mathbb{N} onto \mathbb{R} , and through Cantor–Schroeder–Bernstein as there is a trivial surjection from \mathbb{R} onto any subset of \mathbb{N} there is a bijection.

You say specifically that "it doesn't follow that there is a bijection." Yet, it necessarily does, until you present some disproof or negation of the Cantor–Schroeder–Bernstein theorem in that context.

I don't base my arguments (that the reals and naturals are equivalent) upon what you said, I haven't seen your explanation of a surjection from some proper subset of the naturals to the reals, and I have my own explanations for why the naturals can biject with some proper subset of the reals.

Apparently, so do you. I think that's good, and progress.

Regards,

Ross F.