

Re: Zenkin's paper on Cantor (reply of Dr. Zenkin)

Source: <http://sci.tech--archive.net/Archive/sci.math/2004-11/2553.html>

From: Chas Brown (*cbrown_at_cbrownsystems.com*)

Date: 11/13/04

Date: 13 Nov 2004 15:41:14 -0800

examachine@gmail.com (Eray Ozkural exa) wrote in message
news:<320e992a.0411091141.38c7158b@posting.google.com>...
> "Shmuel (Seymour J.) Metz" <spamtrap@library.lspace.org.invalid> wrote in message
news:<4181a33d\$1\$fuzhry+tra\$mr2ice@news.patriot.net>...
>> In <320e992a.0410271136.4479a210@posting.google.com>, on 10/27/2004
>> at 12:36 PM, examachine@gmail.com (Eray Ozkural exa) said:
>>
>> > However, if he can settle the following metamathematical theorem:
>>
>> That's not a Metamathematical theorem absent definitions of
>> "infinitary reasoning" and "abstraction of actual infinity". Without
>> the definitions it's just Philosophy.
>

Not even Philosophy – without definitions, it's just Wanking.

> The first is a piece of cake as it means that there is no halting
> program which can output a 0 or 1 for falsehood or truth of the
> proposition under consideration. (I cannot see why Brown thought it
> was hard)

But Zenkin's claim is that Cantor's proof is an example of
"infinitary reasoning". Since Cantor's proof can easily be verified as
true (under the usual axiomatic system) in a finite number of steps,
this would contradict your (natural) definition, and his argument must
fail immediately.

If we are generous, we can suppose that what Zenkin really meant was
that his attempt at a refutation by construction of a counter-example
to Cantor's proof was, itself, an example of "infinitary reasoning";
and this would be consistent with your definition.

But then it's hard to imagine why he would then think this proves
anything; as he is then insisting that an invalid argument acts as a
refutation of a correct one.

Thus I can see no definition of "infinitary reasoning" (as he uses it)
which is consistent with his argument being correct.

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Of course, this would all have been simpler if he had simply defined the term – that's why mathematicians insist on definitions.

Cheers – Chas