Re: Ultimate debunking of Cantor's Theory

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- *From*: Calvin <crice5@xxxxxxxxxxxxxx>
- *Date*: Sun, 15 Jul 2007 18:50:38 −0700

"Stephen J. Herschkorn" <sjhersc...@xxxxxxxxxxxx> wrote:

> Any *nonempty* *totally* ordered set that does not have a largest
> element must be infinite. The empty set has no largest element.
> A partially ordered set with only two elements which are
> incomparable with each other has no largest element.
> A nonempty partially ordered set with no *maximal* element
> must be infinite.
>
> I don't remember where this came up. Can you quote the context?

In the 8th post of this thread, Mr. Webb responded
directly to my 2nd post of the thread, as follows:
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"Calvin" <cri...@xxxxxxxxxxxxxx> wrote:

> Proginoskes <CCHeck...@xxxxxxxxx> wrote:
>
>> THE ONLY SETS WHICH EXIST ARE FINITE SETS. THE INFINITE IS
>> ONLY A PRODUCT OF THE IMAGINATION.
>
> Then what is the largest natural number?

I can't see that restricting set theory to finite sets means
there has to be a largest natural number.

So N isn't a set; big deal, nothing breaks. ZFC doesn't have
the set of all ordinals, nobody seems to care.
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Later on I tried to say that, by the definition of the
natural numbers, being the same elements as the

sequence, 1,2,3,... (or 1,1+1,1+1+1,...) it follows that for every n in N (the set of natural numbers), n+1 is also in N; and N couldn't have a largest element L, because L+1 would have to be in N.

But there were objections to my definition on N, and to my not having first proved that N is a set.

After finally accepting everything else, I was still having trouble with the notion that one couldn't use 'not having a largest element' to prove that a set is infinite, if it is a subset of the naturals, integers, rationals, or reals, all of which are one−dimensional number systems.

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