Re: infinity

Source: http://sci.tech−archive.net/Archive/sci.math/2005−09/msg00310.html

- *From*: "William Hughes" <wpihughes@xxxxxxxxxx>
- *Date*: 1 Sep 2005 19:52:31 −0700

Tony Orlow (aeo6) wrote:
> William Hughes said:
> >
> > stephen@xxxxxxxxxx wrote:
> > > William Hughes <wpihughes@xxxxxxxxxx> wrote:
> > > > Tony Orlow (aeo6) wrote:
> > > >> No, it's really not. This problem is couched as an infinity problem. The
> > > >> infinite set of natural numbers requires infinite values. Cantorian thought
> > > >> purports to talk about infinity, but then limits itself to finite numbers so as
> > > >> to avoid the topic. I said IF you limit yourself to finite numbers, THEN you
> > > >> could have an empty vase at noon, although this answer still makes no sense
> > > >> given the constantly increasing sum. This is one of the reasons NOT to limit
> > > >> the naturals to finite values. There is no well−defined size of this set,
> > > >> despite the fact that it must be finite, logically.
> > > >
> > > > I assumed, wrongly, that you accepted the existence of the
> > > > finite integers. Your contention that "it [the size of this
> > > > set] must be finite, logically", is one of your strangest and
> > > > silliest. Why can't there be an infinite set of finite things?
> > > > Does the fact that we have an infinite number of ping pong
> > > > balls mean some of them must be of infinite size?. Yes, assuming
> > > > that there are a finite number of finite integers leads to a
> > > > contradiction, as there are clearly an infinite number of them.
> > > >
> > > Tony refuses to precisely define what he means by 'infinite'
> > > or 'finite'. Apparently the set of finite integers is finite,
> > > or perhaps it is undefined. I think Tony's math allows a set
> > > to be neither finite or infinite.
> > >
> > > Clearly the number of finite integers cannot be a finite
> > > integer. Let F be the number of finite integers.
> > > Tony agrees that if F is a finite integer, then F+1 is
> > > a finite integer. That means that the set {1, 2, 3 ..... F, F+1}
> > > contains F+1 finite integers, which contradicts the claim
> > > that there were F finite integers.
> > >
> >
> > This uses the fact that a finite set must have a largest element.

> > TO (at least implicitely) does not accept this. According
> > to TO
> >
> > −the set of finite integers contains a finite
> > number of elements
> >
> > −there is no largest finite integer
> >
> > TO appears bothered by this contradiction, his conclusion is that
> > the set of finite integers doesn't exist!
> >
> > > Perhaps in Tonymatics a set can still be finite even
> > > if the number of the elements in the set is not finite.
> > >
> >
> > Consistency is not TO's strong suit.
> >
> > −William Hughes
> >
> >
> The only contradiction arises from your obsession with a last element, and
> conflation of it with finiteness for a set. I do not accept that a last element
> necessarily indicates a finite set, therefore I see no contradiction between
> the set of finite naturals being finite and not having a last element.

As stated above I realize you believe that there are only a finite
number of finite integers, and there is no largest finite integer.
You avoid an explicit contradiction only by refusing to define what
you mean by infinite. When I said that "TO appears bothered by this
contradiction" I was refering to your statment "There is no
well−defined size of this set [the finite integers]
despite the fact that it must be finite, logically."

−William Hughes

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- ***Follow−Ups***:
  - ♦ ***Re: infinity***
    - ◊ *From:* aeo6
  - ♦ ***Re: infinity***
    - ◊ *From:* Virgil

- Prev by Date: ***Re: Another Coxeter group question***
- Next by Date: ***Re: Doubt − Proof of Four Color Theorem***
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