Re: Definition of finite.

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* *From*: MoeBlee <jazzmobe@xxxxxxxxxxx>
* *Date*: 6 May 2007 01:40:01 −0700

On May 5, 11:34 am, zuhair <zaljo...@xxxxxxxxx> wrote:

> On May 3, 7:38 pm, hru...@xxxxxxxxxxxxxxxxxxxx (Herman Rubin) wrote:
> Now it would be interesting to see how one can define
> natural number in Z−I−R

We don't need axioms to make these definitions. I keep explaining that to you and you keep ignoring what I wrote. And I've already said that we don't even have to mention omega to define 'natural number'.

n is a natual number <−> (n is finite & n is an ordinal)

where 'finite' is defined as any of the equivalents of 'well ordered by an R and its converse', and 'ordinal' is defined as 'well ordered by epsilon and is epsilon−transitive'.

> I propose the followingdefinitionof x is a natural number in Z−I−R
>
> x is a natural number <−> x is ordinal.
>
> I think this would do the job.

That's IDIOTIC.

And I ALREADY addressed that. You just skip what I wrote.

Are you thinking that because Z−R−I can't prove the existence of an infinite set (thus, a fortiori, of an infinite ordinal) it follows that we might as well take the naturals to be the ordinals?

If that's what you're thinking, it's IDIOTIC and you are RELAPSING into illogical thinking that we ALREADY have been through with you. What I thought you finally understood by this time is that even though a theory might not prove the existence of objects having a certain property, it doesn't follow that the theory RULES OUT that there are such objects. Even though Z−R−I doesn't prove the existence of any infinite ordinals, it still doesn't RULE OUT that they exist. So the definition of 'natural number' still must be stated so as to rule out that a natural number could be an infinite ordinal, otherwise it is left UNdetermined whether there are natural numbers that are infinite when what we WANT to do is make it DETERMINED that there are NOT natural numbers that infinite.

> However in this theory there is no need to define x isfinite, since every x in Z−I−R isfinite.

NO!!! NO!!! NO!!!

We went through that with you about a year ago!!!

In Z−I−R it is UNDETERMINED whether every set is finite. In Z−I−R it is NOT determined that every set is finite.

A theory that DOES determine that every set is finite is Z−R−I + ~I. That is, Z−R−I plus the NEGATION of the axiom of infinity. There, yes, all sets are finite. But in just Z−R−I, it is UNDETERMINED whether there are infinite sets, thus UNDETERMINED whether all sets are finite.

Come on, zuhair, we spent a lot of work a year ago to finally get you to understand that but now you're repeating your old misconceptions again.

MoeBlee

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