

# Re: Well Ordering the Reals

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*Source:* <http://sci.tech-archive.net/Archive/sci.math/2005-11/msg03094.html>

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- *From:* Tony Orlow <[aeo6@xxxxxxxxxxxx](mailto:aeo6@xxxxxxxxxxxx)>
  - *Date:* Mon, 21 Nov 2005 11:30:17 -0500
- 

Daryl McCullough said:

> Tony Orlow says...

>

>> You have asked what axioms of set theory I disagree with? I guess I will have

>> to say, in the light of the above, if it is correct, that I choose to reject

>> the axiom of infinity as it stands, and perhaps suggest replacing it with the

>> something that doesn't call the finite set infinite.

>

> The axiom of infinity just says that there exists a set containing

> all the von Neumann ordinals  $x$  such that  $x$  is not a limit ordinal

> and  $x$  does not contain a limit ordinal. It doesn't "call anything

> infinite", it just claims that a certain set exists.

>

> How are you proposing to modify the axiom of infinity?

Well, you said it was stupid, but my suggesting is start with 1 so the set size is always a member of the set, and not larger than everything in the set. Then, given the nature of the naturals, the infinite set must include infinite values, and the set of finite values must be finite.

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> --

> Daryl McCullough

> Ithaca, NY

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>

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Smiles,

Tony

<http://www.people.cornell.edu/pages/aeo6/WellOrder/>

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• *Follow-Ups:*

◆ ***Re: Well Ordering the Reals***

◇ *From:* boink

◆ ***Re: Well Ordering the Reals***

◇ *From:* Virgil

- **References:**

- ◆ **Re: Well Ordering the Reals**  
◇ From: Tony Orlow
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◇ From: Tony Orlow
- ◆ **Re: Well Ordering the Reals**  
◇ From: Tony Orlow
- ◆ **Re: Well Ordering the Reals**  
◇ From: MoeBlee
- ◆ **Re: Well Ordering the Reals**  
◇ From: Tony Orlow
- ◆ **Re: Well Ordering the Reals**  
◇ From: Randy Poe
- ◆ **Re: Well Ordering the Reals**  
◇ From: Tony Orlow
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◇ From: Daryl McCullough

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