

## Re: Infinity is not that big!

**Source:** <http://sci.tech-archive.net/Archive/sci.logic/2004-10/1378.html>

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**From:** David W. Cantrell (*DWCantrell\_at\_sigmaxi.org*)

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jesse@phiwumbda.org (Jesse F. Hughes) wrote:

> *twizlewick@hotmail.com (Abraham Buckingham) writes:*

>

>> *herc777@hotmail.com (HERC777) wrote in message*

>> *news:<d8422d00.0410281515.4c290ad2@posting.google.com>...*

>>> *oo is not a number*

>>

>> *[snip]*

>>

>>> *if infinity was a number then oo = 0*

>> *[snip]*

>>

>> *Also note that if infinity was a number lions would fall from the sky,*

>> *and moon pies would be movie critics. Start with a contradiction, and*

>> *you can prove anything.*

>

> *The claim that infinity is a number is contradictory only given his*

> *other claim that infinity is not a number.*

>

> *Without some hint of what one means by infinity and number, neither*

> *claim is meaningful.*

Exactly.

I'd been puzzled why AB claimed that considering infinity to be a number would lead to a contradiction. But then I noticed he said the following in an older thread:

"You seem to still be thinking of infinity as a number like 4 or 7, but we know it's different. For example what's  $4 \cdot \infty$ ? If we assume our intuition is right, it would just be  $\infty$  again. Now we then go what is  $2 \cdot \infty$ ?  $\infty$  again. So by this we could say that  $4 \cdot \infty / 2 \cdot \infty = \infty / \infty = 2$ . But, I could just as easily write  $6 \cdot \infty / 2 \cdot \infty = \infty / \infty = 3 = 2$ ? This obvious contradiction means we made a mistake by assuming that  $\infty$  is a number."

This argument is not valid, of course. For example, one can replace every instance of  $\infty$  above by 0 and thereby neatly "prove" that 0 cannot be a

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number either.

David Cantrell, who's still singing  
"Aleph\_nought bottles of beer on the wall..."