Re: Cantor

Source: http://sci.tech−archive.net/Archive/sci.math/2005−10/msg01702.html

- *From*: francisstephens@xxxxxxxxx
- *Date*: 15 Oct 2005 16:31:17 −0700

You have missed something. But a quick read of internet sources about Cantor's argument shows that you've missed the same thing a alot of other people. I think we need to clarify some subtleties.

You need to create a distinction between:

complete infinities
− Cantor's complete infinite set of the reals

potential infinity
− This is what you are talking about when you say that we have a list of numbers that
can be of any length

Cantor was not talking about "any list of you can produce" we was talking about "*the* complete list of reals"

These two lists have quite different properties. Cantor had to postulate a complete list of the reals in order to show that this lead to a contradiction.

Otherwise if allowed ourselves to use the "list of any length" approach then we can very quickly show that for any list of integers we can produce an integer not on that list. But this argument is clearly unhelpful.

Have a look around at the arguments surround potential and actual infinities, the concerns and difficulties are far from simple.

.

- ***References***:
  - ♦ ***Cantor***
    - ◊ *From:* Pedro

- Prev by Date: ***small puzzle: b^x = logb(x) ??***
- Next by Date: ***Re: Integer tetrahedron***

- Previous by thread: ***Re: Cantor***
- Next by thread: ***Re: Cantor***
- Index(es):
    - ***Date***
    - ***Thread***