

Re: how to list all of the real numbers

Source: <http://sci.tech--archive.net/Archive/sci.math/2007-08/msg04210.html>

- *From:* Virgil <virgil@xxxxxxxxxxx>
 - *Date:* Fri, 24 Aug 2007 19:17:43 -0600
-

In article <1187994742.323515.123460@xx>, "Ross A. Finlayson" <raf@xxxxxxxxxxxxxxxx> wrote:

If both of $O < c$ and $O > c$ hold, cardinals are non-trichotomous or the reals aren't a set.

If $0 < c$ and $c < 0$, cardinals are trichotomous and the reals are a set, and anything else anyone wants to claim is also true.

I don't know what you mean by "definitely distinct" and "indefinitely distinct". But according to Euclid's 1st postulate, if any two points *are not the same*, then a line can be drawn between them. Any concept of "adjacent points" is provably inconsistent in geometry.

Euclid's postulates have long been accepted to define geometry.

At least Euclidean geometry, but there are others. But in all but special or finite geometries, between any two points a line exists.

The continuum of real numbers, where any numbers between zero and one are real numbers else they wouldn't be between zero and one, including the nilpotent infinitesimal ι and ι -sums and ι -multiples, such that infinitely many ι 's in multiple equal exactly one, leads

Re: how to list all of the real numbers

to reformulation of the infinitesimal analysis as infinitesimal analysis, where that is nonstandard and not necessarily Non-Standard.

<snip>

This run-on sentence is ill-defined and not even well thought out. You need to break this into steps. By doing so, the errors will become more apparent.

No, it's readable.

Word by word readable but as a whole imparsible.

Yes, much of early analysis lacked the rigor it has today. Even many of Euler's proofs were playgrounds of inconsistencies and unwarranted assumptions. When Weierstrass and Bolzano came upon the scene, they added the rigorous approach to analysis so that it would be on as firm a foundation as Geometry had always been.

I think there is more than one approach.

At least two: there is the rigorous approach and the Ross approach.

....

There are a wide variety of reasonable and useful considerations of infinity in the numbers.

With none of which is Ross competent.

Regardless, I fail to see the point you are trying to make about this function. The existence (or non-existence) Dirac delta's

Re: how to list all of the real numbers

Re: how to list all of the real numbers

axiomitization is completely irrelevant to the topology or cardinality of \mathbb{R} .

No, they're inextricably related.

Since the Dirac delta is not a real function, how is it related?

Can you please give me an example of this "equivalency function"? For instance, which finite natural number maps to π ?

...

You would have that there would always be statements about the real numbers that, although true, you could never prove. I, instead, would have that there is some true set of real numbers about which all facts are provable.

Goedel's work suggests otherwise.

.