Re: Cantor and the binary tree

Source: http://sci.tech−archive.net/Archive/sci.math/2005−05/msg04665.html

- *From*: mueckenh@xxxxxxxxxxxxxxxxx
- *Date*: 25 May 2005 04:27:17 −0700

Robert Kolker wrote:
> Tony Orlow (aeo6) wrote:
> >
> > That's all very well and good, if you specify f anf g and figure those
> > functions into your comparison. It's a mistake to ignore them.
>
> Are you capable of following a proof? Even a three line proof?

Are you capable to follow a five lines proof without referring to "Big Brother" Cantor? Consistency of set theory is questioned, hence I do not accept Cantor's proof as an argument.

line number n
0 0.
1 0 1
2 0 1 0 1
... .

1) Each real number of (0,1) is given by a path stretching over infinitely many nodes (bits).
2) All nodes (bits) of the tree belong to a countable set.
3) A node can only exist within a path.
4) Any node increases the number of paths by 1 from 1 coming in, to 2 going out. 2 − 1 = 1.
5) Any node increases the number of nodes by 1.

Please point out which step is wrong.

Regards, WM

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- ***Follow−Ups***:
  - ***Re: Cantor and the binary tree***

- ◊ *From:* Virgil
- ♦ ***Re: Cantor and the binary tree***
  - ◊ *From:* Robert Kolker

- ***References***:
  - ♦ ***Cantor and the binary tree***
    - ◊ *From:* mueckenh
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* Robert Kolker
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* Robin Chapman
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* Ron Sperber
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* aeo6
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* Robert Kolker
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* aeo6
  - ♦ ***Re: Cantor and the binary tree***
    - ◊ *From:* Robert Kolker

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