

Re: the binary tree

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- *From:* Dave <dave_and_darla@xxxxxxxx>
 - *Date:* Fri, 17 Apr 2009 08:59:51 -0700 (PDT)
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On Apr 17, 10:41 am, calvin <cri...@xxxxxxxxxxxxxxxx> wrote:

On Apr 17, 11:29 am, Dave <dave_and_da...@xxxxxxxx> wrote:

On Apr 17, 8:23 am, calvin <cri...@xxxxxxxxxxxxxxxx> wrote:

Yes, but so what? The binary tree yields the uncountable number of reals between zero and one in a countable number of construction steps.

Please demonstrate the first several layers of this binary tree.

It's just the standard binary tree:

Under each node, consider the left branch to be a zero and the right branch to be a one. At the end of each branch is a node, from which drop two more branches, another zero and one. Under the topmost node, where I place the binary point, is the first row, consisting of two branches ending in two nodes. Under that is the second row, consisting of four branches and four nodes; under that is the third row, consisting of eight branches and eight nodes. And so on.

Are there values in the nodes? If so, what are they? If not, where do all the real numbers lie?

Dave

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