Re: ** says: Definition: sum{i in N} i = 0

Source: http://sci.tech−archive.net/Archive/sci.math/2007−06/msg05205.html

- *From*: WM <mueckenh@xxxxxxxxxxxxxxxxx>
- *Date*: Thu, 28 Jun 2007 01:44:35 −0700

On 28 Jun., 08:02, Virgil <vir...@xxxxxxxxxxx> wrote:

> In article <1183009493.535511.143...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
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> WM <mueck...@xxxxxxxxxxxxxxxxx> wrote:
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> > On 27 Jun., 19:43, Virgil <vir...@xxxxxxxxxxx> wrote:
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> > > In article
> > > <1182933394.549064.286...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
> > >
> > > WM <mueck...@xxxxxxxxxxxxxxxxx> wrote:
> > >
> > > > The Binary Tree
> > > > Let [x] = n <= x such that n + 1 > x, i.e. n is
> > > > the largest integer <=
> > > > x.
> > > > Let]x[= n >= x such that n − 1 < x, i.e. n is
> > > > the smallest integer
> > > >
> > > > > = x.
> > > >
> > > > Level
> > > >
> > > > |0 0.
> > > > | / \
> > > > |1 0 1
> > > > | / \ / \
> > > > |2 0 1 0 1

| /\ /\ /\ /\
v x

At height x the number of nodes is K(x) =
2^[x+1] − 1.
At height x the number of separated path
bunches is P(x) = 2^]x[.

At level n, as indicated above, the number of paths in the finite tree
that ends at level n is Card(P({x in N\/{0}: x < n}))

Thus the number in the infinite tree is Card(P(N))

In height x the quotient P(x)/K(x) = (2^]x[) /
(2^[x+1] − 1)

In the whole tree we can estimate
P/K = lim_{x −−> oo} (2^]x[) / (2^[x+1] −
1) < 2.

The ratio only holds for finite trees, In an infinite tree there is a
different path for each different subset of N, so the number of paths
equals the number of subsets of N, which is greater than the number of
elements of N.

Would you agree that this result is correct
although there is not a
limit in the usual sense.

I would agree that there is one path for each subset of N.

Or would you prefer to say that because of
the quotient is alternating between the
epsilon surrounding of 1/2 and
the epsilon surrounding of 1 the true result is
2^aleph_0?

Since I see the reality of a bijection between the set of paths
ad the
set of subsets of N, I say the result must be larger than
Card(N)

That means
P/K = lim_{x −−> oo} (2^]x[) / (2^[x+1] − 1) > 2
or set theory is selfcontradictory.

It only means that, as usual, WM has the wrong end of the stick.

WM is claiming that a rule that only applies to some paths because they
have leaf nodes must apply to paths not having leaf nodes also.

First: I consider every path, including such which do not end, by]x[.
Second: All paths, except some divine ones, consist of nodes.
Third: My consideration does not end, is not estricted to leaves, but
concerns the limit x −−> oo.

Regards, WM

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