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

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- *From*: Virgil <virgil@xxxxxxxxxxx>
- *Date*: Sat, 07 Jul 2007 15:31:45 −0600

In article <1183841453.925240.23300@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
WM <mueckenh@xxxxxxxxxxxxxxxxx> wrote:

> On 7 Jul., 19:44, Virgil <vir...@xxxxxxxxxxx> wrote:

> > If you can't see the facts supporting my discovery (lim_[x −−>
> > oo]
> > P(x)/K(x) in the binary tree) then further discussion is
> > meaningless.

Yes, it is meaningless because you do not see that that limit is *not* the necessary value.

The limit is not necessary
the value, but for continuous
functions it
is. lim [x-->o] sinx/x = 1
unless you define another
value at x = 0
and by that make the
function discontinuous.

WRONG! The function defined merely by
f(x) = sin(x)/x is not even
defined at x = 0 unless an addition to that
definition is appended to
extend the definition to cover x = 0.

This definition has been given in mathematics once and for
all by
l'Hospital.
At least in standard mathematics.

WRONG! In standard mathematics, any 0/0 situation is standardly UNDEFINED, even when, as in the sin(x)/x case, there is an appropriate limiting value. In sin(x)/x one has a so called "removeable discontinuity" but it is never automatically assumed to have been removed. At least not in standard mathematics.

The question is only this: Can removal of the removable discontinuity
yield another result than
lim_[x-->0] sinx/x = 1?

The question is, what is your justification for attempting to remove the discontinuity in the first place?

For sin(x)/x the answer would be so as to have an everywhere continuous and differentiable function.

But for your 'P(x)/K(x)', there is no justification at all, since there is a direct way to find what the value should be "at oo".

The paths of the tree are
continuous, however.

> > > > That is an entirely different form of
> > > > 'continuity' than the continuity
> > > > of a real function at a real point. And neither
> > > > type holds "at oo".

> > > But this kind of continuity guarantees that the limit of
> > > K(x)/P(x) is
> > > the only reasonable value for the consideration of the whole
> > > tree,
> > > like l'Hospital delivers the only reasonable value for sinx/x at
> > > x =
> > > 0.

> > It may be the only candidate for continuity, but there is no reason to
> > suppose continuity when one jumps from finite to infinite arguments.
> >
> > And in this instance there is good reason to doubt it, as there are good
> > reasons to think the number of paths uncountably greater than the number
> > of nodes.

> On the other hand, the continuity of the paths guarantees that the
> result is the only one possible, in mathematics.

That may be what transpires in in WM's MathUnRealism, but it does not in
actual mathematics, since by direct analysis, one can show that "at oo"
the ratio of paths to nodes must be infinite:
In the infinite case, the number of nodes equals the number of
levels, but the number of paths equals the number of sets of levels.
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