Re: Is continuum completely filled up?

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- *From*: David Marcus <DavidMarcus@xxxxxxxxxxxxxx>
- *Date*: Wed, 24 Jan 2007 13:27:29 −0500

Andy Smith wrote:

> Randy Poe <poespam−trap@xxxxxxxxx> writes
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> > Andy Smith wrote:
> >
> > > Speaking intuitively, I would have said that the line in[0,1] is
> > > a
> > > 1−dimensional space and it is up to somebody to
> > > demonstrate that you can
> > > cover it with (an uncountable infinity of) points of zero
> > > dimension.
> >
> > The point of my post was that you can't even ask the
> > question "do the reals cover it" until "it" is defined. Any
> > attempt I might make to define the line (for instance
> > in terms of distance from 0) depends on the real numbers.
> >
> > So I don't know what "it" is. If I think of it as a representatioin
> > of [0,1], then of course [0,1] covers it because [0,1] and
> > "it" are essentially the same thing. "It" has no existence (in
> > my scheme) outside of [0,1].
> >
> > Let me be even more specific. I will define "the line segment
> > from P1 to P2" as the set of points P
> > {P : P = a*P1 + (1−a)*P2, 0 <= a <= 1}
> >
> > So everything in this set is defined by a real number a
> > between 0 and 1. There's no such thing as a point which
> > is not associated with such an a, since that's my membership
> > test. Do you see that it's obvious there is no member of
> > my set not corresponding to some a?
>
> No, but in the context of all of this, how do you adjust a such that
> successive points in P (there can be no such thing) are continuous ?

Is this a serious question? Or, are you trolling? How can you ask a question about "successive points" and then add "(there can be no such thing)"? And, what does "continuous" mean in this context?

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David Marcus
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