Re: infinity

Source: http://sci.tech−archive.net/Archive/sci.math/2005−08/msg01648.html

- *From*: "Jesse F. Hughes" <jesse@xxxxxxxxxxxxx>
- *Date*: Tue, 09 Aug 2005 20:10:23 +0200

Tony Orlow (aeo6) <aeo6@xxxxxxxxxxx> writes:

> Jesse F. Hughes said:
>> Tony Orlow (aeo6) <aeo6@xxxxxxxxxxx> writes:
>>
>> > Virgil said:
>> >> In article <MPG.1d618aae41392f57989fe9@xxxxxxxxxxxxxxxxxxxxxxxxx>,
>> >> Tony Orlow (aeo6) <aeo6@xxxxxxxxxxx> wrote:
>> >>
>> >> > > Which ball is not covered by that argument?
>> >> > N+1 through 10n+9.
>> >>
>> >> If TO means "n+1 through 10n+9" he is presuming that there is a last,
>> >> nth, step, which is specifically prohibited by the rules.
>> >>
>> >> And as there is no last step, there is no ball that is not covered.
>> >>
>> > Then there is no point at which the last ball is removed. Isn't that
>> > correct?
>>
>> The last ball? What's the number written on that one? When was it
>> put in?
> "largest finite. largest finite."

Let's call this largest finite number x.

Now, by definition of the problem, every ball labeled n is put in at
time

noon − 2^(−f(n))

where f(n) = floor(n / 10). Right? So ball x was put in at
noon − 2^(−f(x)). This is before noon, so 2^(−f(x)) must be greater
than zero, right?

But ball x should be taken out at time

noon − 2^(−x).

Now, I'd think that this is also before noon, but apparently you don't think so. Thus, it appears that we have deduced a startling property of the largest finite number:

2^(−floor(x/10)) > 0, but 2^(−x) <= 0.

Wow. I wonder whether 2^(−floor(x/2)) > 0 or not.

How did you ever deduce this startling fact?

>>
>> It's this clear, incisive analysis that ensures the success of your
>> mathematical revolution, no doubt.
>>
>>
> Snideness noted.

I'll stop being snide if you stop being stupid.

>
> If you claim that the vase at some point becomes empty, and want to
> challenge those that claim otherwise by asking which ball remains,
> then they have equal right to ask which is the final ball removed
> which leaves the vase empty.

They have that right, but it's a stupid question. There is no such thing as the final ball and the vase is non−empty for every time prior to noon (after 11:59).

> If you cannot name the last ball removed, then why should anyone
> have to name which ball remains?

There is no largest finite number. That's a simple fact, obvious to everyone sensible about mathematics.

See the difference?

Everyone agrees that there is a number written on every ping pong ball. Therefore, if there is a ping pong ball in the vase at noon, one should presumably be able to determine what number is on the ball.

But only you (and a handful of similarly deluded folk) think there was a last ball removed. This is related to your belief that there is a largest natural number. But no one else shares that belief and indeed many times we've shown why the belief is just nonsensical. So why should we pretend to believe that there *is* a last ball removed? And how can we answer your question without pretending that?

Anyway, the mythical largest finite number doesn't help you. As long as x is finite, we are sure that 2^−x is non−zero, so the ball is labeled x will be removed before noon. (And if it really *were* the

last ball put in the vase, then there's your answer: it's the last
ball removed, too.)

> This focus on the names of the balls is entirely unnecessary. If you
> claim the vase is empty at noon, describe the process whereby, after
> growing constantly, the vase is suddenly empty.

The process was given in the statement of the problem.

> There is no last ball removed. For every ball removed, 10 are
> added. The vase is never empty, and any conclusions to that effect
> that you derive from this retarded Cantorian system indicate
> assumptions within that system which are wrong.

−−
"You got more out of it
than I put into it last night.
Who were you thinking of when were loving last night?"
−− Texas Tornadoes
.

- ***Follow−Ups***:
  - ♦ ***Re: infinity***
    - ◊ *From:* aeo6

- ***References***:
  - ♦ ***infinity***
    - ◊ *From:* Theo Jacobs
  - ♦ ***Re: infinity***
    - ◊ *From:* David C . Ullrich
  - ♦ ***Re: infinity***
    - ◊ *From:* snapdragon31
  - ♦ ***Re: infinity***
    - ◊ *From:* William Hughes
  - ♦ ***Re: infinity***
    - ◊ *From:* snapdragon31
  - ♦ ***Re: infinity***
    - ◊ *From:* Dave Seaman
  - ♦ ***Re: infinity***
    - ◊ *From:* snapdragon31
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  - ◊ *From:* snapdragon31
- ***Re: infinity***
  - ◊ *From:* Randy Poe
- ***Re: infinity***
  - ◊ *From:* aeo6
- ***Re: infinity***
  - ◊ *From:* Virgil
- ***Re: infinity***
  - ◊ *From:* aeo6
- ***Re: infinity***
  - ◊ *From:* Jesse F. Hughes
- ***Re: infinity***
  - ◊ *From:* aeo6

- Prev by Date: ***Re: What is the Distribution of this?***
- Next by Date: ***Re: really easy integral, is actually really hard***
- Previous by thread: ***Re: infinity***
- Next by thread: ***Re: infinity***
- Index(es):
  - ***Date***
  - ***Thread***