Re: 1−1/2+1/3−1/4+1/5−1/6+1/7

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- *From*: "Jesse F. Hughes" <jesse@xxxxxxxxxxxxx>
- *Date*: Thu, 14 Feb 2008 12:45:37 −0500

Han de Bruijn <Han.deBruijn@xxxxxxxxxxxxxx> writes:

> Time to hook in with an improved version of my purported "Proof that ZFC
> is inconsistent" (well, it's not the proper thread, but ..). Scrutinize,
> please.
>
> Proof that ZFC is inconsistent
> −−−−−−−−−−−−−−−−−−−−−−−−−−−−−−

You are *so* cute.

> Lemma
> −−−−−
> Let x, y be any sets, then (the _same_ function S as above):
>
> y is in S[x] iff there is some n such that for all m > n
> y is in S_m[x]
>
> Here, n e N , m e N and S_m[x] defined as above.
>
> Proof
> −−−−−
> As an excercise for the interested reader ;−)

Bullshit.

I've already said that this is false, so how do you dare omit the
proof?

In <87d4r3r3ur.fsf@xxxxxxxxxxxxx>, I explicitly anticipated this
argument. Let

T(x) = { y in N | (E n in N)(A m in N)(m > n −> y in S_m[x]) }

Then we see that

y is in S[x] iff (E z in x)(A w in N)(w in y <−>
(E n in N)(A m in N)(m > n −> w in S_m(z)))

[the corresponding formula in the previous post was not right, but see below] while

y is in T(x) iff (E n in N)(A m in N)(m > n −> (E z in x)(y = S_m(z)))

If you want to show that S[x] = T(x), then you sure as hell can't leave the proof to *this* reader, because I don't see any reason that it's true.

−−−−−−−−−−−−−−−−−
Lemma:

y is in S[x] iff (E z in x)(A w in N)(w in y <−>
(E n in N)(A m in N)(m > n −> w in S_m(z)))

Proof:

y is in S[x] iff (E z in x)(y = S[z])

w is in S[z] iff (E n in N)(A m in N)(m > n −> w in S_m(z)).

Note that S[z] c N, since each S_m(z) c N.

Thus,

y is in S[x] iff (E z in x)(A w in N)(w in y <−>
(E n in N)(A m in N)(m > n −> w in S_m(z)))

Lemma:

y is in T(x) iff (E n in N)(A m in N)(m > n −> (E z in x)(y = S_m(z)))

Proof:

By definition,

y is in T(x) iff (E n in N)(A m in N)(m > n −> y in S_m[x]).

y is in S_m[x] iff (E z in x)(y = S_m(z)).
−−−−−−−−−−−−−−−−−−

Proof left to reader my ass, Han. That was either just butt−stupid or dishonest. I had *already* suggested[1] that the lemma is false. If you think otherwise, then have the balls to prove it.

Footnotes:

[1] Though, to be honest, my description of S[x] was simply off.

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