

Re: 1-1/2+1/3-1/4+1/5-1/6+1/7

Source: <http://sci.tech-archive.net/Archive/sci.math/2008-02/msg02046.html>

- *From:* Han de Bruijn <Han.deBruijn@xxxxxxxxxxxxxxxx>
- *Date:* Tue, 12 Feb 2008 14:58:43 +0100

Gonçalo Rodrigues wrote:

On Tue, 12 Feb 2008 14:05:44 +0100, Han de Bruijn <Han.deBruijn@xxxxxxxxxxxxxxxx> fed this fish to the penguins:

Jesse F. Hughes wrote:

G. Frege <nomail@invalid> writes:

For simplicity we assume that n, m are in \mathbb{N} , then we can write:

$$x \in E^* \leftrightarrow \exists n \exists m (x \in E_n \wedge x \in E_m)$$

$$x \in E \leftrightarrow \exists n \exists m (x \in E_n \wedge x \in E_m)$$

*

Thinking about it, I get the following criteria for the limit – if it exists:

$$E = \lim_n E_n$$

iff

$$x \in E \leftrightarrow \exists n \exists m (x \in E_n \wedge x \in E_m) \text{ for all } x.$$

With other words, x is element of the limit (if it exists) iff it is not element only of finitely many elements E_n .

Just to be clear: $\lim_n E_n = E \ ? \ n \ ?$

Or am I missing something? If I read you right, I guess I don't see

Re: $1 - 1/2 + 1/3 - 1/4 + 1/5 - 1/6 + 1/7$

much need to discuss the lim sup and lim inf at present, since we haven't discussed lim sup and lim inf is just another name for lim.

Surely I'm missing something.

Is mathematics the art of making things unnecessarily complicated?

<http://rescomp.stanford.edu/~cheshire/EinsteinQuotes.html>

"Everything should be made as simple as possible, but not simpler."
(Albert Einstein)

Please !!

Is that your pavlovian response whenever you see some mathematics that is beyond your understanding? That it is an unnecessary complication?

Geez! In my finitary comprehension, the whole thing is sooo obvious !
But that's not the game I want to play here. Therefore I'm begging you to employ a formalism which is as simple and straightforward as possible and not invoke unnecessary complications / generalizations or whatever.

Han de Bruijn