Re: abundance of irrationals!)

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- *From*: Virgil <ITSnetNOTcom#virgil@xxxxxxxxxxx>
- *Date*: Sat, 09 Apr 2005 17:17:55 −0600

In article <fb701d3c.0504091316.26b078ff@xxxxxxxxxxxxxxxxxx>,
mueckenh@xxxxxxxxxxxxxxxxx (W. Mueckenheim) wrote:

> Matt Gutting <matthewdba@xxxxxxxxxxx> wrote in message
> news:<1112911242.31bdd0db59763e54c0def1b83b068bb8@teranews>...
>
>
> > > How can you find out whether SUM 1/2^k is converging, unless you are
> > > able to prove for ALL n > n_0 that 1 − S_n < epsilon? (S_n is the
> > > partial sum up to n)
> >
> > You develop a formula using the terms "n" and "S_n" whose validity does
> > not depend on the particular value used for n. This allows you to
> > conclude that the formula holds for ALL n.
>
> a formula like that one, for example?
>
> n
> SUM (1/2^k) = 1 − 1/2^n < 1
> k=1
>
> or is there a big difference?
>
> >
> > Or in this case, one could prove (by induction) that S_n = 1 − 2^(−n).
> > Since lim (n increases without bound) 2^(−n) = 0, lim (n increases
> > without bound) S_n = 1 − lim (n increases without bound) 2^(−n) =
> > 1 − 0 = 1. (This obviously uses limit theorems rather than the epsilon
> > delta definition, but the limit theorems are directly obtained from
> > that definition.)
>
> As long as only natural numbers are involved,
> no limit is correct but 2^(−n) > 0.

Not only non sequitur but non compos mentis.
.

- ***References***:
    - ***Re: abundance of irrationals!)***
        - ◊ *From:* W. Mueckenheim
    - ***Re: abundance of irrationals!)***
        - ◊ *From:* Dik T. Winter
    - ***Re: abundance of irrationals!)***
        - ◊ *From:* W. Mueckenheim

- Prev by Date: ***Re: abundance of irrationals!)***
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