Re: pointwise but not quasi−uniform

Source: http://sci.tech−archive.net/Archive/sci.math/2006−04/msg04256.html

---

- *From*: David C. Ullrich <ullrich@xxxxxxxxxxxxxxxx>
- *Date*: Sun, 23 Apr 2006 07:44:35 −0500

On Sat, 22 Apr 2006 19:24:03 −0700, William Elliot
<marsh@xxxxxxxxxxxxxxxxxx> wrote:

> [...]
> No, (f_n)_n is uniformly convergent on {1}
> Thus you add to your intervals the set {1}, and you've shown
> quasi−uniformity. For not quasi−uniformity you may have to adjust
> your definition as I hinted above. As this is getting all much
> complex with quotings, comments and corrections, may I suggest you present
> a rewritten and revised copy instead of further patchings and correctings?
> That make additional discussion much easier for both of us.

Why not just admit you have no idea how to answer the question,
instead of quibbling and pretending not to understand?

Here's the definition: Suppose that f_n : [0,1] −> R for
n = 1, 2, ... Suppose that f : [0,1] −> R. We say that
f_n −> f quasi−uniformly if [0,1] is a countable union
[0,1] = union A_j, such that for every j, the restriction
of f_n to A_j tends uniformly to the restriction of f to A_j
as n −> infinity.

Here's the problem: Find an example of pointwise convergence
which is not quasi−uniform.

****

David C. Ullrich
.