

Re: Prove something about uniformly continuous

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- *From:* Kenshin <rurouni_sohjiro@xxxxxxxxxxxx>
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On 8/24/07, 5:29 AM, Kenshin <rurouni_sohji...@xxxxxxxxxxxx> wrote:

On 8/24/07, 5:18 AM, "[Mr.] Lynn Kurtz" <ku...@xxxxxxxxxxxxxxxx> wrote:

On Thu, 23 Aug 2007 13:02:49 -0700, Kenshin

<rurouni_sohji...@xxxxxxxxxxxx> wrote:

A is nonempty subset of \mathbb{R} (real number)
A : bounded

f : uniformly continuous

f : $A \rightarrow \mathbb{R}$

f(A) is bounded?

I wanna prove this by using the definition of uniformly continuous... positively...

I've already know the proof making the compact set (the set of limit)

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points of A).

Is that last sentence a sentence?

Hint: Let $\epsilon = 1$, find δ . Pick a point p in A . How far away from $f(p)$ can f get in a 2δ size interval from p ? How many such intervals to cover A ? So...

--Lynn--

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I know the rough idea like that, but I can't have the concrete proof.

Sorry for my poor English and math skill ;(--

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Finally I've done it. Thanks.

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