

Re: A set containing a nonempty open interval

Source: <http://sci.tech--archive.net/Archive/sci.math/2005-08/msg05108.html>

- *From:* klewis@xxxxxxxxxxxxxxxxxxx (Keith A. Lewis)
 - *Date:* Fri, 26 Aug 2005 20:37:42 +0000 (UTC)
-

A N Niel <anniel@xxxxxxxxxxxxxxxxxxxxxxxx> writes in article <260820051428574700%anniel@xxxxxxxxxxxxxxxxxxxxxxxx> dated Fri, 26 Aug 2005 14:28:57 -0400:
>In article <[denmfc\\$o5k\\$I@xxxxxxxxxxxxxxxxxxxxxxxx](mailto:denmfc$o5k$I@xxxxxxxxxxxxxxxxxxxxxxxx)>, Keith A. Lewis
><klewis@xxxxxxxxxxxxxxxxxxx> wrote:
>
>> "Amanda" <sca18@xxxxxxxxxxx> writes in article
>> <1125067955.450481.88600@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> dated 26 Aug 2005
>> 07:52:35 -0700:
>> >
>> >I'd like some hints on how to prove that, if a set S has positive
>> >Lebesgue measure, then $(A + A)/2 = \{(x + y)/2 \mid x \text{ and } y \text{ are in } A\}$
>> >contains a non-empty open interval.
>>
>> Unless you specify $x \diamond y$, you might get all closed intervals.
>
>By "contains a non-empty open interval" he means it has a subset which
>is a non-empty open interval.

Since every interval has a subset which is an open interval, I wonder why the word "open" is even in the question. Probably not important, I guess.

—Keith Lewis [klewis {at} mitre.org](mailto:klewis@mitre.org)

The above may not (yet) represent the opinions of my employer.

• *Follow-Ups:*

- ◆ ***Re: A set containing a nonempty open interval***
 ◇ *From:* David C . Ullrich
- ◆ ***Re: A set containing a nonempty open interval***
 ◇ *From:* Virgil
- ◆ ***Re: A set containing a nonempty open interval***
 ◇ *From:* W. Dale Hall
- ◆ ***Re: A set containing a nonempty open interval***
 ◇ *From:* Jim Spriggs
- ◆ ***Re: A set containing a nonempty open interval***
 ◇ *From:* Amanda

Re: A set containing a nonempty open interval

- **References:**

- ◆ **[A set containing a nonempty open interval](#)**

- ◆ *From:* Amanda

- ◆ **[Re: A set containing a nonempty open interval](#)**

- ◆ *From:* Keith A. Lewis

- ◆ **[Re: A set containing a nonempty open interval](#)**

- ◆ *From:* A N Niel

- Prev by Date: **[Re: Mathematical ASL?](#)**

- Next by Date: **[Re: Hyperboloid Question](#)**

- Previous by thread: **[Re: A set containing a nonempty open interval](#)**

- Next by thread: **[Re: A set containing a nonempty open interval](#)**

- Index(es):

- ◆ **[Date](#)**

- ◆ **[Thread](#)**