

Re: No homeomorphism $(0,1) \leftrightarrow [0,1]$

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-09/msg01902.html>

- *From:* mstemper@xxxxxxxxxxxxxxxxxx (Michael Stemper)
 - *Date:* Thu, 8 Sep 2005 12:54:04 -0500
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In article <3ob7q4F54kquU1@xxxxxxxxxxxxxxxx>, Jose Carlos Santos writes:

>On 08-09-2005 17:34, Michael Stemper wrote:

>

>> I'm trying to prove that there isn't a homeomorphism between $[0,1]$

>> and $(0,1)$, and I'm stuck. What I know so far is the definitions of

>> homeomorphism and continuity.

>

>Suppose that there was a homeomorphism $f:[0,1] \rightarrow]0,1[$. It's

>continuous, and so, by Weierstrass' theorem,

Thanks for the reply. However, all that I've learned so far is the definitions of metric space, continuity, and homeomorphism. I certainly haven't encountered this theorem yet.

For anybody playing along at home, this exercise is a post script to Exercise C, Chapter III, in *_Topology_*, by George McCarty.

—

Michael F. Stemper

#include <Standard_Disclaimer>

This sentence no verb.

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- *Follow-Ups:*

- ◆ **[Re: No homeomorphism \$\(0,1\) \leftrightarrow \[0,1\]\$](#)**

- ◇ *From:* quasi

- ◆ **[Re: No homeomorphism \$\(0,1\) \leftrightarrow \[0,1\]\$](#)**

- ◇ *From:* Robert Israel

- ◆ **[Re: No homeomorphism \$\(0,1\) \leftrightarrow \[0,1\]\$](#)**

- ◇ *From:* Lee Rudolph

- *References:*

- ◆ **[No homeomorphism \$\(0,1\) \leftrightarrow \[0,1\]\$](#)**

- ◇ *From:* Michael Stemper

- ◆ **[Re: No homeomorphism \$\(0,1\) \leftrightarrow \[0,1\]\$](#)**

Re: No homeomorphism $(0,1) \leftrightarrow [0,1]$

◇ From: José Carlos Santos

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