

Re: Is continuum completely filled up?

## Re: Is continuum completely filled up?

---

*Source:* <http://sci.tech-archive.net/Archive/sci.math/2007-01/msg00701.html>

---

- *From:* "ooo" <t-ozaki-inmf-010@xxxxxxxxxxxxxxxx>
  - *Date:* Thu, 4 Jan 2007 22:27:24 +0900
- 

"Saurav" <saurav1b@xxxxxxxx> wrote in message  
<news:1167459989.569012.274570@xx>

ooo wrote:

I am biginer in English and mathrmatics.  
If real line is filled with points and each point is  
distinguished, then each point has difference from every other points.  
Therefore real line has void.

Thanks for advance.

First, I would advise you to use something considerable in the place of  
nickname. "ooo" looks quite odd! Change it, please.  
I tell you, when I started to read mathematics of the real line, such  
questions came into my mind; and I used that time to think about the  
possible meanings of "next number". Why there is no gaps in real line  
ruffled my mind. But as it has made the whole scenario clear, step by  
step, through myriads of misconceptions and corrections, I am sure that  
you also will understand what is meant by "gaps" and why completeness  
is contrary to gaps.  
I advise you to nurse your questions in mind; and ask others, as you  
did, and if not satisfied with their answers, keep on reading....to  
realize what the real line looks like shall need years; many properties  
of it, topological, measure theoretical, set theoretical ...are there,  
without knowing which you can not possibly afford to a clear picture of  
the real line.  
I recommend a book : Hobson's book, "The thory of functions of a real  
variable and the theory of Fourier's series". After you have had a  
priliminary understanding of the structure of  $\mathbb{R}$ , you should read this  
book.

The question of wheather real line is filled up or not is the same as the  
question that  
1. wheather all space is filled up, (or zeno's paradox achilles and  
tortouse)

Re: Is continuum completely filled up?

Re: Is continuum completely filled up?

2.or motion of rotating disk is completed

3.throughing dice is completed

expression might be uncomprehensible.

1.

.