

# Re: Galileo's Paradox and the Project of the Reals

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- *From:* [cbrown@xxxxxxxxxxxxxxxxxxxx](mailto:cbrown@xxxxxxxxxxxxxxxxxxxx)
  - *Date:* 16 Jan 2007 16:39:07 -0800
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Tony Orlow wrote:

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Okay, define me an infinite set which doesn't use successor or order in the definition, or in the definition of something used in the definition.

The set of all lines in the Euclidean plane.

Define "line" without '<'.

That is an odd but easily satisfied request. "Line" is a primitive in Euclidean geometry; as such it has no "definition" at all, with or without '<'.

See:

[http://en.wikipedia.org/wiki/Hilbert%27s\\_axioms#The\\_Axioms](http://en.wikipedia.org/wiki/Hilbert%27s_axioms#The_Axioms)

To say there is no definition is hardly to satisfy a request for a definition. Hilbert's axioms treat points, lines and planes as "primitive", defining the relationships between them. But, if you want to talk about the set of all lines