

## Re: Cantors proof

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**From:** Daryl McCullough (*daryl\_at\_atc-nycorp.com*)

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Dave Seaman <dseaman@no.such.host> writes:

> *Definition. A natural number is a transitive set that is well ordered by*  
> *the set-membership relation and also by the inverse of the set-membership*  
> *relation.*

Yes, for *some* definitions of the terms "natural number" and "finite" it is tautological that the natural numbers are finite. But for *other* definitions, it is necessary to prove it.

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Daryl McCullough  
Ithaca, NY