

Re: The real numbers, and general comments

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From: Andrew Usher (*k_over_hbarc_at_yahoo.com*)

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Dave Seaman <dseaman@no.such.host> wrote in message news:<cjqcb5\$2uo\$1@mozo.cc.purdue.edu>...

> > *The trouble is that you are convinced that ZFC is a good model of*
> > *logic.*
>
> *I don't consider ZFC to be a model of anything. I was talking about ZF*
> *as a set of axioms that serves as a basis for set theory.*

I know, you are a formalist, which I find objectionable.

> > *Cantor's power-set theorem can be proved using real logic, as*
> > *Cantor did; it can also be 'proved' in ZF.*
>
> *It's an axiom of ZF.*

No, a theorem. The PS axiom doesn't assert $P(A) > A$.

> > *But (I think) Lowenheim-Skolem says that a bijection does exist, but*
> > *ZFC can't find it. Now if L-S says only that 'there exist countable*
> > *models', no problem; but I am not sure which.*
>
> *That's not what L-S says. L-S is about models, and Cantor's theorem does*
> *not make reference to any particular model.*

The version of Cantor not using a model is therefore not ZF.

Andrew Usher