Re: Zenkin's paper on Cantor (reply of Dr. Zenkin)

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Jesse F. Hughes wrote:

> *Cardinality is well−motivated to capture the size of a set. When a*
> *child counts a collection of pencils, he is creating a bijection*
> *between an initial segment of N and the set of pencils. For finite*
> *sets, assigning a size clearly involves a bijection.*
>
> *I've seen no reason why this isn't the essence of counting.*

Except for a couple of nasty details. When "creating" the bijection, the pencils must be labeled. Otherwise you wouldn't know if a pencil has already be counted or not. Labeling the pencils actually means that you are creating a different set: that of the pencils already counted. Moreover, you are destroying the original set: that of the pencils still to be counted. The process stops when the latter set has become empty. Replacing the pencils by apples:

http://hdebruijn.soo.dto.tudelft.nl/fototjes/appels.htm

Han de Bruijn