

Re: { }

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- *From:* leo1476@xxxxxxxxxxxx
 - *Date:* 19 Jan 2006 05:39:34 -0800
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>>"Also I find it very difficult to see why { } is not equal to
>>nothingness."

Do you mean "...equal to nothingness"? Well the empty set is a subset of every set because it logically follows from this argument:

[NOTATION: " !< " means not a subset of; so A !< B, means A not a subset of B.]

Suppose { } !< of all sets A; then there exists a set B such that { } !< B. So by definition of not being a subset of some set, there is an element x in { } such that x is not in B. But by definition { } has no elements; so this contradicts { } !< B, so our original hypothesis must be false. So { } < every set A.

The trouble is that everyday language is sometimes ambiguous and if strict logic is not applied, one finds certain definitions and theorems "impossible". Just stick to logical arguments and you will be fine.

Leo

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