

Sentences

1 Why

We want to say things about objects and sets of objects.

2 Discussion

An assertion is a sequence of symbols which is assumed to be true.

Let a be an object. Let A be a set. A membership assertion is $a \in A$. Notice that \in is not symmetric. $a \in A$ does not assert the same meaning as $A \in a$.

Let b be an object. An identity assertion is a = b. Notice that a = b asserts the same as b = a.

A primitive sentence is a belonging assertion or an equality assertion. The symbolism used includes three pieces: the names of the two objects and the symbols \in or =.

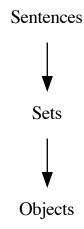
A *logical form* is one of several structures:

- 1. and
- 2. or (in the sense of "— or or both")
- 3. not
- 4. implies (in the sense of "if —, then —"
- 5. if and only if

- 6. for some
- 7. for all

This list is redundant.

A sentence primitive sentence or a logical form with a primitive sen-



tence or a logical form with sentences.