



QUANTIFIED STATEMENTS

Why

We want symbols for talking about some object of a set or all objects of a set.

Definition

Existential Quantifier

Consider the symbol \exists . We agree that it means “there exists an object”. We write $\exists a \in A$. We read this as “there exists an object in the set denoted by A , and denote that very same object by a ”. We call \exists the existential quantifier.

Universal Quantifier

Consider the symbol \forall . We agree that it means “for every object”. We write $\forall a \in A$. We read this as “for every object in the set denoted by A , and denote one such object by a ”.

Quantified Statements



Logical Statements



Statements



Identities

Sets



Objects