1 Logical Symbols

The logical symbols are a kind of symbols using for theoretical statements.

Table 1: Frequently-used Logical Symbols

Symbols	Meanings
$L \Longrightarrow P$	Proposition L is contained in proposition P
$L \Longleftrightarrow P$	Proposition $L$is equivalent to proposition P
$\neg P$	Not P
$L \wedge P$	Proposition L and proposition P
$L \vee P$	Proposition L or proposition P

e.g.

$$((A \Longrightarrow B) \wedge (\neg B) \Longrightarrow (\neg A))$$

stands for " if A is contained in B,and B is not true,then A is not true". We also call $A \Longleftrightarrow B$ "A is the necessary and suffiecent condition of B".

2 Sets and their Operations

Table 2: Universial and Exsitential Quantifications

Symbols	Meanings
$\forall x \in A$	For all elements x in A
$\exists x \in A$	There exist at least one element x in A