

Review of Logic

You should know the following facts and definitions.

Connectives

p	q	$p \wedge q$	$p \vee q$	$\sim p$	$p \rightarrow q$	$p \leftrightarrow q$
T	T	T	T	F	T	T
T	F	F	T	F	F	F
F	T	F	T	T	T	F
F	F	F	F	T	T	T

Negation of simple statements

Statement	Negation
All	Some. . . not
Some	No
Some. . . not	All
No	Some

Negation of compound statements (Logical Equivalences)

$$\begin{aligned}\sim(p \vee q) &\iff (\sim p \wedge \sim q) \\ \sim(p \wedge q) &\iff (\sim p \vee \sim q) \\ \sim(p \rightarrow q) &\iff (p \wedge \sim q) \\ \sim(\sim p) &\iff p\end{aligned}$$