

3.1 Statements & Quantifiers

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Introduction
to Logic
Chapter 3

Negations of Quantified Statements

<u>Statement</u>		<u>Negation</u>
All do	↔	Some do not
Some do	↔	None do

3.2 Truth Tables & Equivalent Statements

Truth Table for Conjunction

Standard Form for p and q Truth Values

<u>p</u>	<u>q</u>	<u>$p \wedge q$</u>
T	T	T
T	F	F
F	T	F
F	F	F

Truth Table for Disjunction

p or q

<u>p</u>	<u>q</u>	<u>$p \vee q$</u>
T	T	T
T	F	T
F	T	T
F	F	F

De Morgan's Law for Logical Statements

$$\sim(p \vee q) \equiv \sim p \wedge \sim q$$

$$\sim(p \wedge q) \equiv \sim p \vee \sim q$$

