

APPENDIX 3

Quantifiers

- \forall for all or for any
 \exists there exists
 $!$ Unique

Logical Connectives

- $-$ not
 \vee or
 \wedge and
 \Rightarrow implies $a \Rightarrow b$; if a, then b
 \Leftrightarrow if and only if $a \Leftrightarrow b$; if a, then b and if b, then a
 \nRightarrow does not imply $a \nRightarrow b \equiv -(a \Rightarrow b)$

Logical Contradiction

- \dashv The preceding statement is self contradictory.
 e.g. $(a \Rightarrow b) \wedge (a \nRightarrow b) \dashv$

Truth Tables

a	$\neg a$	a	b	$a \vee b$	a	b	$a \wedge b$
T	F	T	T	T	T	T	T
F	T	T	F	T	T	F	F
		F	T	T	F	T	F
		F	F	F	F	F	F

a	b	$a \Rightarrow b$	a	b	$a \Leftrightarrow b$
T	T	T	T	T	T
T	F	F	T	F	F
F	T	T	F	T	F
F	F	T	F	F	T

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