

# Concepts and Formulas

## Mathematical Reasoning

### Truth Tables

- AND

P	Q	$P \wedge Q$
T	T	T
T	F	F
F	T	F
F	F	F

- OR

P	Q	$P \vee Q$
T	T	T
T	F	T
F	T	T
F	F	F

- NOT

P	$\sim P$
T	F
F	T

- Conditional

P	Q	$P \Rightarrow Q$
T	F	F
T	T	T
F	T	T
F	F	T