

# Mathematics for Computing Logic

DRAFT

## 1 Logic

- The NOT operator  $\neg$  (also known as the negation operator)

### 1.1 Truth Tables

$p$	$q$	$p \wedge q$	$p \vee q$	$\neg p$	$\neg(p \wedge q)$
0	0	0	0	1	1
0	1	0	1	1	1
1	0	0	1	0	1
1	1	1	1	0	0

### Propositional Logic

- A Set is a collection of distinct and defined elements.
- Sets are represented by using French braces  $\{\}$  with commas to separate the elements in a Set.