

CS201

statements: e.g. P, q
 true or false but not both

operations:

- and \wedge conjunction
- or \vee disjunction
- not \neg negation

Aug 30-10:06 AM

P	q	$P \wedge q$	$P \vee q$
T	T	T	T
T	F	F	T
F	T	F	T
F	F	F	F

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DeMorgan's Laws

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

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

P	q	$P \vee q$	$\neg(P \vee q)$	$\neg P$	$\neg q$	$\neg P \wedge \neg q$
T	T	T	F	F	F	F
T	F	T	F	F	T	F
F	T	T	F	T	F	F
F	F	F	T	T	T	T

p: I am Clif
 q: I teach CS

Aug 30-10:40 AM

tautologies

P	$\neg P$	$P \vee \neg P$
T	F	T
F	T	T

contradiction

P	$\neg P$	$P \wedge \neg P$
T	F	F
F	T	F

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