

# Key

## Math 150 Quiz 2

1. Write a negation for each statement.

- a) The flowers are to be watered.
- b) All students present will get another chance.
- c) Some people have good luck.

1. a) The flowers are not to be watered.

b) Some students present will not get another chance.

c) All do not have good luck.

2. Construct a truth table for each compound statement.

a)  $\sim p \vee \sim q$

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

a)

p	q	$\sim p$	$\sim q$	$\sim p \vee \sim q$
T	T	F	F	F
F	T	T	F	T
T	F	F	T	T
F	F	T	T	T

b)

p	q	$\sim p$	$\sim q$	$\sim p \wedge \sim q$	$\sim p \vee q$	$(\sim p \wedge \sim q) \vee (\sim p \vee q)$
T	T	F	F	F	T	T
F	T	T	F	F	T	T
T	F	F	T	F	F	F
F	F	T	T	T	T	T