Math 116: Written Homework Set 9

This assignment is due on Wednesday, February 27th in class. Show all work where possible! Answers magically appearing will receive no credit.

- 1. Construct truth tables for the following.
 - a. $\sim p \wedge q$
 - b. $p \lor \sim q$
 - c. $\sim p \rightarrow \sim q$
 - d. $(p \land \sim q) \rightarrow (\sim p \land q)$
- 2. Write the negation of the following statements (note that De Morgan's laws may be helpful).
 - a. I like school and I like this class.
 - b. I will pass this class or I will quit school.
 - c. I do not like math and I do not like history.

Selected Answers

1. a.

~p ∧ q
F
F
T
F

c.

~p → ~q
Т
T
F
Т

- 2. a. I do not like school or I do not like this class.
 - c. I like math or I like history.