Quiz 1 Name: _____

1. Write the inverse, converse and contrapostive of the compound statement: If it Friday then I go to the movies.

   (a) inverse

   (b) converse

   (c) contrapositive

2. Write a truth table for $(p \vee q) \wedge (p \rightarrow q)$

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

3. Write a truth table for $(p \vee q) \oplus (\neg p \wedge \neg q)$

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

4. Prove $\neg(p \wedge q) \equiv \neg p \vee \neg q$ using a truth table.

5. Prove $p \leftrightarrow q \equiv \neg(p \oplus q)$ any way you like.