Thursday, September 10, 2009

Q1]. . . Write down the truth tables for the following expressions:

$$P \to Q \qquad\qquad (\neg P) \vee Q$$

P	Q	$P \to Q$
T	T	T
T	F	F
F	T	T
F	F	T

P	Q	$\neg P$	$(\neg P) \vee Q$
T	T	F	T
T	F	F	F
F	T	T	T
F	F	T	T

Write down the converse of the statement $P \to Q$.

$$Q \to P$$

Write down the contrapositive of the statement $P \to Q$.

$$\neg Q \to \neg P$$

Q2]. . . Write the following two statements in the form "If _____, then _____."

I eat potatoes only if it is not raining.

If I eat potatoes, then it is not raining.

I eat potatoes if it is not raining.

If it is not raining, then I eat potatoes.