

MATH 318, Assignment 3

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		p	q	$(\neg p \rightarrow q)$			
		T	T	\perp	T	T	T
		T	\perp	\perp	T	T	\perp
		\perp	T	T	\perp	T	T
		\perp	\perp	T	\perp	\perp	\perp

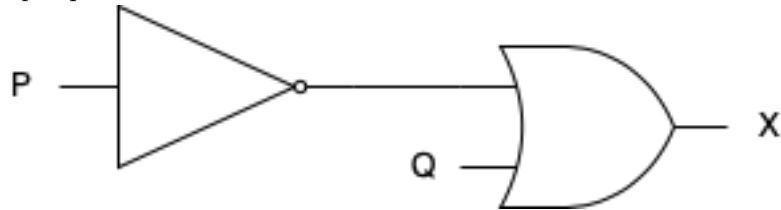
		p	q	$(p \wedge q) \vee \neg p$			
		T	T	T	T	\perp	T
		T	\perp	T	\perp	\perp	T
		\perp	T	\perp	\perp	T	\perp
		\perp	\perp	\perp	\perp	T	\perp

		p	q	$p \rightarrow (\neg p \rightarrow q)$			
		T	T	T	T	\perp	T
		T	\perp	T	T	\perp	\perp
		\perp	T	\perp	T	\perp	T
		\perp	\perp	\perp	T	\perp	\perp

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

C is the only tautology.

2. (a) $\neg p \vee q$



(b) $p \vee q$

