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example of tautology

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An example of a tautology and how to test it is given in the truth table below for the statement $(P \lor Q) \lor (\neg P \land \neg Q)$

P	Q	$\neg P \land \neg Q$	$P \lor Q$	$(P \lor Q) \lor (\neg P \land \neg Q)$
F	F	T	F	T
F	T	F	T	T
T	F	F	T	T
T	T	F	T	T

Thus for whatever truth values P and Q take on, the statement always comes out true as shown in the last coloumn of the truth table.