

## Quiz 3

1. True or False? The statement below is DNF. (5 pts.)

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

2. Simplify the following statement. If it is a tautology or contradiction, you must say which for full credit on this problem.

$$[(p \wedge q) \rightarrow r] \vee (p \wedge \neg r)$$

(5 pts.)

3. Determine the validity of the argument. You must clearly justify your answer for full credit. A correct response with little or no justification will not receive full credit. (10 pts.)

$$\begin{array}{l} p \rightarrow r \\ \hline \neg p \rightarrow r \\ \hline r \end{array}$$