

1. Which of the following is a tautology according to the Rule of Inference known as Disjunctive Amplification (or Addition)?

*(3 points)*

A.  $p \rightarrow p \wedge q$

✓ B.  $p \rightarrow p \vee q$

C.  $p \rightarrow p \wedge \neg q$

D.  $p \rightarrow p \vee p$

2. Which of the following is equivalent to the tautology  $p \wedge q \rightarrow r$ ?

*(3 points)*

A.  $p \wedge q \wedge r \rightarrow F_0$

B.  $p \vee q \vee \neg r \rightarrow F_0$

✓ C.  $p \wedge q \wedge \neg r \rightarrow F_0$

D.  $p \vee q \wedge \neg r \rightarrow F_0$

3. What conclusion can be reached from the following argument?

$p \rightarrow q$

$q \rightarrow t$

$\neg t$

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*(3 points)*

✓ A.  $\neg p$

B.  $p$

C.  $\neg q$

D.  $p \wedge \neg t$