

Question 1

LHS: $(p \Rightarrow (q \Rightarrow r))$

$= \sim p \vee (q \rightarrow r)$ (Other Implication Law)

$= \sim p \vee (\sim q \vee r)$ (Other Implication Law)

RHS: $((p \wedge q) \Rightarrow r)$

$= \sim(p \wedge q) \vee r$ (Other Implication Law)

$= (\sim p \vee \sim q) \vee r$ (DeMorgan's Law)

$= \sim p \vee (\sim q \vee r)$ (Associative Law)

Hence, LHS = RHS