MAU22C00 Assignment 1, Due Friday 29 September 2023

1. Give the abstract syntax tree for the statement $\{[p \vee (q \vee r)] \supset [(p \vee q) \vee r]\}$.

2. Show, by means of a truth table, that the statement $\{[p \vee (q \vee r)] \supset [(p \vee q) \vee r]\}$ is a tautology.

3. Show, by means of a tableau, that the statement $\{[p \vee (q \vee r)] \supset [(p \vee q) \vee r]\}$ is a tautology.