

$$\begin{array}{c}
\frac{\frac{\lceil p \wedge (q \vee r) \rceil^{[1]}}{p} \quad [\wedge\text{-elim-1}] \quad \frac{\lceil p \wedge (q \vee r) \rceil^{[1]}}{q \vee r} \quad [\wedge\text{-elim-2}] \quad \frac{\frac{\lceil q \rceil^{[2]}}{p \wedge q} \quad [\wedge \text{ intro}]}{p \wedge q \vee p \wedge r} \quad [\vee\text{-intro-1}] \quad \frac{\frac{\lceil r \rceil^{[2]}}{p \wedge r} \quad [\wedge \text{ intro}]}{p \wedge q \vee p \wedge r} \quad [\vee\text{-intro-2}]}{\frac{p \wedge q \vee p \wedge r}{p \wedge (q \vee r) \Rightarrow p \wedge q \vee p \wedge r} \quad [\vee\text{-elim}^{[2]}]} \\
\frac{}{p \wedge (q \vee r) \Rightarrow p \wedge q \vee p \wedge r} \quad [\Rightarrow\text{-intro}^{[1]}]
\end{array}$$