$$\dfrac{\dfrac{\dfrac{\dfrac{}{\cdot 34() \vdash [34()]\cdot \mid 34()}}{\cdot 34() \vdash \cdot \mid \cdot 34() \mid}}{\cdot 34() \vdash \ \cdot 34() \mid \cdot \mid}}{\cdot \vdash \ \cdot (34?()^{\perp}) \vee^{-} (34?()) \mid \cdot \mid}$$

Definition 1 (Formulae)

$$\begin{array}{ll} P & = p \mid A \wedge^{+} B \mid A \vee^{+} B \\ N & = p^{\perp} \mid A \wedge^{-} B \mid A \vee^{-} B \\ A, B & = P \mid N \end{array}$$

Definition 2 (Negation)

$(p)^{\perp}$	$:= p^{\perp}$	$(p^{\perp})^{\perp}$	$:= p$
$(A \wedge^{+} B)^{\perp}$	$:= A^{\perp} \vee^{-} B^{\perp}$	$(A \wedge^{-} B)^{\perp}$	$:= A^{\perp} \vee^{+} B^{\perp}$
$(A \vee^{+} B)^{\perp}$	$:= A^{\perp} \wedge^{-} B^{\perp}$	$(A \vee^{-} B)^{\perp}$	$:= A^{\perp} \wedge^{+} B^{\perp}$

Definition 3 (System)

$$\frac{\Gamma \vdash [A]\Delta \qquad \Gamma \vdash [B]\Delta}{\Gamma \vdash [A \wedge^{+} B]\Delta} \qquad \frac{\Gamma \vdash [A_i]\Delta}{\Gamma \vdash [A_1 \vee^{+} A_2]\Delta}$$

$$\frac{}{\Gamma, p \vdash [p]\Delta}$$

$$\frac{\Gamma \vdash N \mid \Delta}{\Gamma \vdash [N]\Delta}\, N \text{ negative}$$

$$\frac{\Gamma \vdash A, \Pi \mid \Delta \qquad \Gamma \vdash B, \Pi \mid \Delta}{\Gamma \vdash A \wedge^{-} B, \Pi \mid \Delta} \qquad \frac{\Gamma \vdash A_1, A_2, \Pi \mid \Delta}{\Gamma \vdash A_1 \vee^{-} A_2, \Pi \mid \Delta}$$

$$\frac{\Gamma \vdash \Pi \mid \Delta, P}{\Gamma \vdash P, \Pi \mid}\, P \text{ positive} \qquad \frac{\Gamma, p \vdash \Pi \mid \Delta}{\Gamma \vdash p^{\perp}, \Pi \mid}\, p^{\perp} \text{ negative atom}$$

$$\frac{\Gamma \vdash [P]\Delta, P}{\Gamma \vdash \mid \Delta, P}$$