

$$\begin{array}{c}
\frac{\boxed{(w); m, w \overset{\top}{\vdash} m; \quad \boxed{(w); m, w \overset{\top}{\vdash} w;}}{R\wedge_+} \\
\frac{\boxed{(w); m, w \overset{(\top \wedge \top)}{\vdash} (m \wedge w);}{L\wedge_-} \\
\frac{\boxed{(w); (m \wedge w) \overset{(\top \wedge \top)}{\vdash} (m \wedge w);}{R \rightarrow_+} \\
\boxed{(w); \overset{(\top \wedge \top)}{\vdash} ((m \wedge w) \rightarrow (m \wedge w));}
\end{array}$$