

	introduction	elimination
$\wedge$	$\frac{\phi \quad \psi}{\phi \wedge \psi} \wedge i$	$\frac{\phi \wedge \psi}{\phi} \wedge e_1, \quad \frac{\phi \wedge \psi}{\psi} \wedge e_2.$
$\vee$	$\frac{\phi}{\phi \vee \psi} \vee i_1, \quad \frac{\psi}{\phi \vee \psi} \vee i_2$	$\frac{\phi \vee \psi \quad \boxed{\begin{smallmatrix} \phi \\ \vdots \\ x \end{smallmatrix}} \quad \boxed{\begin{smallmatrix} \psi \\ \vdots \\ x \end{smallmatrix}}}{x} \vee e$
$\rightarrow$	$\frac{\boxed{\begin{smallmatrix} \phi \\ \vdots \\ \psi \end{smallmatrix}}}{\phi \rightarrow \psi} \rightarrow i$	$\frac{\phi \quad \phi \rightarrow \psi}{\psi} \rightarrow e$
$\neg$	$\frac{\boxed{\begin{smallmatrix} \phi \\ \vdots \\ \perp \end{smallmatrix}}}{\neg \phi} \neg i$	$\frac{\phi \quad \neg \phi}{\perp} \neg e$
$\perp$		$\frac{\perp}{\phi} \perp e$
$\neg\neg$	$\frac{\phi}{\neg\neg\phi} \neg\neg i.$	$\frac{\neg\neg\phi}{\phi} \neg\neg e.$

$$MT: \frac{\phi \rightarrow \psi \quad \neg \psi}{\neg \phi}$$

$$PBC: \frac{\boxed{\begin{smallmatrix} \neg \phi \\ \vdots \\ \perp \end{smallmatrix}}}{\phi}$$

$$LEM: \frac{}{\phi \vee \neg \phi}.$$