Definition 1: Conjunction Introduction $\wedge I$

ϕ,$\psi \vdash \phi \wedge \psi$ or ϕ,$\psi \vdash \psi \wedge \phi$

Definition 2: Conjunction Elimination ($\wedge E$)

$\phi \wedge \psi \vdash \phi$ or $\phi \wedge \psi \vdash \psi$

Definition 3: Conditional Elimination ($\rightarrow E$)

$\phi \rightarrow \psi$,$\phi \vdash \psi$

Definition 4: Conditional Introduction ($\rightarrow I$)

n	ϕ	A
	⋮	
m	ψ	
m+1	$\phi \rightarrow \psi$	$\rightarrow I$ n-m

Definition 5: Negation Introduction ($\neg I$)

k	ϕ	A
⋮	⋮	
n	ψ	
n+1	$\neg(\psi)$	
n+2	$\neg(\phi)$	$\neg I$ k-(n+1)

Definition 6: Negation Elimination ($\neg E$)

k	$\neg(\phi)$	A
⋮	⋮	
n	ψ	
n+1	$\neg(\psi)$	
n+2	ϕ	$\neg E$ k-(n+1)

Definition 7: Disjunction Introduction ($\vee I$)

$\phi \vdash \phi \vee \psi$ or $\phi \vdash \psi \vee \phi$

Definition 8: Disjunction Elimination ($\vee E$)

n	$\phi \vee \psi$	P
k	ϕ	A
	⋮	
k+i	χ	
j	ψ	A
	⋮	
j+l	χ	
m	χ	$\vee E$ n, k-(k+i), j-(j+l)

Definition 9: Biconditional Elimination ($\leftrightarrow E$)

$\phi \leftrightarrow \psi$,$\phi \vdash \psi$ or $\phi \leftrightarrow \psi$,$\psi \vdash \phi$

Definition 10: Biconditional Introduction ($\leftrightarrow I$)

n	ϕ	A
	⋮	
n+i	ψ	
k	ψ	A
	⋮	
k+j	ϕ	
m	$\phi \leftrightarrow \psi$	$\leftrightarrow I$ n+1, k+j

Definition 11: Reiteration (R)

$\phi \vdash \phi$

Definition 12: Disjunctive Syllogism (DS)

$\phi \vee \psi$,$\neg(\psi) \vdash \phi$ or $\phi \vee \psi$,$\neg(\phi) \vdash \psi$

Definition 13: Modus Tollens (MT)

$\phi \rightarrow \psi$,$\neg(\psi) \vdash \neg(\phi)$

Definition 14: Hypothetical Syllogism (HS)

$\phi \rightarrow \psi$,$\psi \rightarrow \chi \vdash \phi \rightarrow \chi$

Definition 15: Double Negation (DN)

$\phi \dashv\vdash \neg\neg(\phi)$

Definition 16: De Morgan's Laws (DeM)

$\neg(\phi \vee \psi) \dashv\vdash \neg(\phi) \wedge \neg(\psi)$ or $\neg(\phi \wedge \psi) \dashv\vdash \neg(\phi) \vee \neg(\psi)$

Definition 17: Implication (IMP)

$\phi \rightarrow \psi \dashv\vdash \neg(\phi) \vee \psi$

Definition 18: Universal Elimination ($\forall E$)

$(\forall x)\phi(x_1 ... x_n) \vdash \phi(\alpha_1 ... \alpha_n / x_1 ... x_n)$ where x is not in $\phi(\alpha_1 ... \alpha_n)$

Definition 19: Existential Introduction ($\exists I$)

$\phi(\alpha_i) \vdash (\exists x)\phi(x_n / \alpha_n)$ where x is not in $\phi(\alpha_i)$

Definition 20: Universal Introduction ($\forall I$)

$\phi(\alpha_1 ... \alpha_n) \vdash (\forall x)\phi(x_1 ... x_n / \alpha_1, ... \alpha_n)$ where the name α does not occur as premise, as an assumption in an open subproof, or in $(\forall x)\phi(x_1 ... x_n / \alpha_1, ... \alpha_n)$ and where x is not in $\phi(\alpha_1 ... \alpha_n)$

Definition 21: Existential Elimination ($\exists E$)

n	$(\exists x)\phi x$	P
j	$\phi(\alpha / x)$	A
	⋮	
j+i	ψ	
j+(i+1)	ψ	$\exists E$, n, j-(j+1)

Definition 22: Quantifier Negation (QN)

$\neg(\forall x)\phi \dashv\vdash (\exists x)\neg\phi$ or $\neg(\exists x)\phi \dashv\vdash (\forall x)\neg\phi$