

Atomic tableaux (FOPL)

TA	FA	$T(\alpha \wedge \beta)$ $\begin{array}{c} \\ T\alpha \\ \\ T\beta \end{array}$	$F(\alpha \wedge \beta)$ $\begin{array}{c} / \quad \backslash \\ F\alpha \quad F\beta \end{array}$
$T(\neg\alpha)$ $\begin{array}{c} \\ F\alpha \end{array}$	$F(\neg\alpha)$ $\begin{array}{c} \\ T\alpha \end{array}$	$T(\alpha \vee \beta)$ $\begin{array}{c} / \quad \backslash \\ T\alpha \quad T\beta \end{array}$	$F(\alpha \vee \beta)$ $\begin{array}{c} \\ F\alpha \\ \\ F\beta \end{array}$
$T(\alpha \Rightarrow \beta)$ $\begin{array}{c} / \quad \backslash \\ F\alpha \quad T\beta \end{array}$	$F(\alpha \Rightarrow \beta)$ $\begin{array}{c} \\ T\alpha \\ \\ F\beta \end{array}$	$T(\alpha \Leftrightarrow \beta)$ $\begin{array}{c} / \quad \backslash \\ T\alpha \quad F\alpha \\ \quad \\ T\beta \quad F\beta \end{array}$	$F(\alpha \Leftrightarrow \beta)$ $\begin{array}{c} / \quad \backslash \\ T\alpha \quad F\alpha \\ \quad \\ F\beta \quad T\beta \end{array}$
$T(\forall x\varphi(x))$ $\begin{array}{c} \\ T\varphi(t) \end{array}$ for any ground term t	$F(\forall x\varphi(x))$ $\begin{array}{c} \\ F\varphi(c) \end{array}$ for a new constant c	$T(\exists x\varphi(x))$ $\begin{array}{c} \\ T\varphi(c) \end{array}$ for a new constant c	$F(\exists x\varphi(x))$ $\begin{array}{c} \\ F\varphi(t) \end{array}$ for any ground term t

Atomic tableaux (modal logic)

$Tp \Vdash \varphi$

$Fp \Vdash \varphi$

for any atomic sentence φ and any p

$Tp \Vdash \varphi \vee \psi$ $\begin{array}{c} \diagup \quad \diagdown \\ Tp \Vdash \varphi \quad Tp \Vdash \psi \end{array}$	$Fp \Vdash \varphi \vee \psi$ $\begin{array}{c} \\ Fp \Vdash \varphi \\ \\ Fp \Vdash \psi \end{array}$	$Tp \Vdash \varphi \wedge \psi$ $\begin{array}{c} \\ Tp \Vdash \varphi \\ \\ Tp \Vdash \psi \end{array}$	$Fp \Vdash \varphi \wedge \psi$ $\begin{array}{c} \diagup \quad \diagdown \\ Fp \Vdash \varphi \quad Fp \Vdash \psi \end{array}$
$Tp \Vdash \varphi \Rightarrow \psi$ $\begin{array}{c} \diagup \quad \diagdown \\ Fp \Vdash \varphi \quad Tp \Vdash \psi \end{array}$	$Fp \Vdash \varphi \Rightarrow \psi$ $\begin{array}{c} \\ Tp \Vdash \varphi \\ \\ Fp \Vdash \psi \end{array}$	$Tp \Vdash \neg \varphi$ $\begin{array}{c} \\ Fp \Vdash \varphi \end{array}$	$Fp \Vdash \neg \varphi$ $\begin{array}{c} \\ Tp \Vdash \varphi \end{array}$
$Tp \Vdash \forall x \varphi(x)$ $\begin{array}{c} \\ Tp \Vdash \varphi(c) \\ \text{for any} \\ \text{appropriate } c \end{array}$	$Fp \Vdash \forall x \varphi(x)$ $\begin{array}{c} \\ Fp \Vdash \varphi(c) \\ \text{for some new } c \end{array}$	$Tp \Vdash \exists x \varphi(x)$ $\begin{array}{c} \\ Tp \Vdash \varphi(c) \\ \text{for some new } c \end{array}$	$Fp \Vdash \exists x \varphi(x)$ $\begin{array}{c} \\ Fp \Vdash \varphi(c) \\ \text{for any} \\ \text{appropriate } c \end{array}$
$Tp \Vdash \Box \varphi$ $\begin{array}{c} \\ Tq \Vdash \varphi \\ \text{for any} \\ \text{appropriate } q \end{array}$	$Fp \Vdash \Box \varphi$ $\begin{array}{c} \\ pSq \\ \\ Fq \Vdash \varphi \\ \text{for some new } q \end{array}$	$Tp \Vdash \Diamond \varphi$ $\begin{array}{c} \\ pSq \\ \\ Tq \Vdash \varphi \\ \text{for some new } q \end{array}$	$Fp \Vdash \Diamond \varphi$ $\begin{array}{c} \\ Fq \Vdash \varphi \\ \text{for any} \\ \text{appropriate } q \end{array}$