

$$\begin{array}{c}
\frac{\frac{\frac{\forall y\varphi(x, y) \rightarrow \varphi(x, y)}{\forall y\varphi(x, y) \rightarrow \exists x\varphi(x, y)}{\text{A12}} \quad \frac{\varphi(x, y) \rightarrow \exists x\varphi(x, y)}{\text{A13}}}{\text{Syllogism}} \\
\frac{\forall y\varphi(x, y) \rightarrow \exists x\varphi(x, y)}{\exists x\forall y\varphi(x, y) \rightarrow \exists x\varphi(x, y)} \text{B}\exists \\
\frac{\exists x\forall y\varphi(x, y) \rightarrow \exists x\varphi(x, y)}{\exists x\forall y\varphi(x, y) \rightarrow \forall y\exists x\varphi(x, y)} \text{B}\forall
\end{array}$$