

$$(a) \vdash \forall x \forall y \varphi(x, y)$$

$$(b) \vdash \forall x \forall y \varphi(x, y) \Rightarrow \forall y \varphi(x, y)$$

$$(c) \vdash \forall y \varphi(x, y)$$

$$(d) \vdash \forall y \varphi(x, y) \Rightarrow \varphi(x, x)$$

$$(e) \vdash \varphi(x, x)$$

$$(f) \vdash \underline{\forall x \varphi(x, x)}$$

$$(g) \forall x \forall y \varphi(x, y) \vdash \forall x \varphi(x, x)$$

$$(h) \vdash \forall x \forall y \varphi(x, y) \Rightarrow \forall x \varphi(x, x)$$