

Řešení

$$1. \vdash \forall x \varphi \Rightarrow \varphi$$

$$\vdash \varphi$$

$$2. \vdash \forall x (\varphi \Rightarrow \psi) \Rightarrow \varphi \Rightarrow \psi$$

$$\vdash \varphi \Rightarrow \psi$$

$$3. \vdash \psi$$

$$\vdash \forall x \psi$$

$$4. \vdash \forall x \varphi \vdash \forall x \psi$$

$$\vdash \forall x \varphi \Rightarrow \forall x \psi$$

$$\vdash \forall x (\varphi \Rightarrow \psi) \Rightarrow (\forall x \varphi \Rightarrow \forall x \psi)$$