

PHIL 103: Logic and Reasoning QR II

Practice #7

1. Show the following: $\{ (\forall x)(Fx \rightarrow Gx) \} \vdash ((\forall x)Fx \rightarrow (\forall x)Gx)$
2. Show the following: $\{ (\forall x)(Gx \rightarrow Hx), (\exists x)(Fx \wedge Gx) \} \vdash (\exists x)(Fx \wedge Hx)$
3. Show the following: $\{ (\exists x)\sim Fx \} \vdash \sim(\forall x)Fx$
4. Show the following: $\{ \sim(\forall x)Fx \} \vdash (\exists x)\sim Fx$
5. Prove that identity is an equivalence relation.