

Exercici G

Exercici F. Demostreu la validesa o la invalidesa dels seqüents següents.

i.

$$\exists xFx \wedge \exists xGx \vdash \exists x(Fx \wedge Gx)$$

ii.

$$\forall xFx \rightarrow \forall xGx \vdash \forall x(Fx \rightarrow Gx)$$

iii.

$$\forall xFx \rightarrow \exists xGx \vdash \exists x(Fx \rightarrow Gx)$$

iv.

$$\exists x(Fx \rightarrow Gx) \vdash \exists xFx \rightarrow \exists xGx$$

v.

$$\forall x(Px \wedge Qx \rightarrow Rx), Pa \wedge \neg Ra \vdash \exists x(Px \wedge \neg Qx)$$

vi.

$$\forall x(Px \wedge Qx \rightarrow Rx), \exists x(Px \wedge \neg Rx) \vdash \exists x(Px \wedge \neg Qx)$$

vii.

$$\forall x\exists y\neg Fxy, \forall x\forall y(Gxy \rightarrow \neg Fxy) \vdash \forall x\exists y\neg Gxy$$

viii.

$$\forall x(Px \rightarrow (Gx \rightarrow \exists y(Ry \wedge Qxy))), \forall x(Px \rightarrow \forall y(Ry \rightarrow \neg Qxy)) \vdash \forall x(Px \rightarrow \neg Gx)$$
