

Knowledge Axioms

Kn1 φ where φ is a propositional tautology

Kn2 $K_i(\varphi \rightarrow \psi) \rightarrow (K_i\varphi \rightarrow K_i\psi)$

Kn3 $K_i\varphi \rightarrow \varphi$

Kn4 $K_i\varphi \rightarrow K_iK_i\varphi$

Kn5 $\neg K_i\varphi \rightarrow K_i\neg K_i\varphi$

Rules of Inference

MP $\vdash \varphi, \vdash (\varphi \rightarrow \psi) \Rightarrow \vdash \psi$

Nec $\vdash \varphi \Rightarrow \vdash K_i\varphi$