

Philosophy 142: Non-Normal Modal Logic Exercises

October 27, 2008

1. Show $\vdash_N A \rightarrow A$.

2. Show $\vdash_N \neg\Diamond(\Box p \wedge \Diamond\neg p)$ but $\not\vdash_L \neg\Diamond(\Box p \wedge \Diamond\neg p)$.

3. Show the following for N . Specify a counter-model and draw a picture of it.

(a) $\not\vdash \Box p \supset p$

(b) $\not\vdash \Box p \supset \Box\Box p$

(c) $\not\vdash \Box(p \rightarrow p)$

Which of the above hold in N_ρ or $N_{\rho\tau}$?

4. Find a formula ϕ such that $\vdash_N \phi$ but $\not\vdash_E \phi$.