

HW 2, due Monday, January 28: problems 5 and 7 on p. 14 of the book. (For Friday, January 25, do the earlier problems 1,2,3,4, but don't hand them in.)

Solution of 5. Observe that if ψ_0, \dots, ψ_n is a formation sequence of $\psi = \psi_n$, then the subsequence $\psi_{i_0}, \dots, \psi_{i_m}$ with $i_0 < \dots < i_m$ resulting from it by deleting those ψ_i that are not subformulas of ψ is again a formation sequence of ψ .

Solution of 7(b). From left to right:

$$\neg\neg\neg\perp, \quad (p_0 \rightarrow \perp) \rightarrow ((p_0 \leftrightarrow p_1) \wedge p_5), \quad \neg(\neg p_1 \rightarrow \neg p_1).$$