Logic and Computation I, Autumn 2024

Exercise 02-01
Due Date:

Exercise 2.1.1
Show that P2 and P3 are tautologies.

P2. $\Big(\varphi \to (\psi \to \theta)\Big) \to \Big((\varphi \to \psi) \to (\varphi \to \theta)\Big)$

P3. $(\neg\psi \to \neg\varphi) \to (\varphi \to \psi)$

Solution:

Exercise 2.1.2
Construct proofs of the following propositions.

(1) $\neg\varphi \to (\varphi \to \psi)$.

(2) $\neg\neg\varphi \to \varphi$.

Solution: