

Logic and Foundations I, Autumn 2023

Homework No.4

Due: 2023.10.24

Name:

Problem 1

Prove $(\text{prop. logic}) \vdash \varphi \Leftrightarrow \text{BA} \vdash \varphi = 1$, where BA is short for Boolean algebra.

Solution:

Problem 2

Show the Ackermann function is recursive.

Requirement: rather than using the Kleene normal form theorem, use the idea of its proof.

Solution: