

Grading Exercise 1

For exercise 1.a, the student can obtain 4 points in total. For each of the following components, the student may be awarded up to 1 point.

- Carrying out the initial step of the induction proof.
- Carrying out the induction step for \forall .
- Showing $\neg\neg B \rightarrow B$ is true in every finite Beth model.
- Applying soundness to arrive at the desired conclusion.

Small gaps in reasoning may result in a half-point deduction.

For exercise 1.b, the student can obtain 2 points in total. The student will be awarded full points if they completely specify a Beth model that serves as a counterexample to the given schema. An explicit verification of this fact is not required. If a picture is used to represent a Beth model, the student must note any implicit assumptions made with regard to this picture. Failure to do so may result in a half-point deduction.