

LL-Mathematical Logic

Homework Assignment #1.

Exercise 1: Ex. 2, page 30

Exercise 2: Ex. 1, page 37.

Exercise 3: Ex. 2, page 38.

Exercise 4: Ex. 4, page 38.

Exercise 5: Ex. 6, page 38.

Exercise 6: Using laws of propositional logic, simplify the formula

$$[p_1 \wedge ((p_1 \wedge p_2) \vee (p_1 \wedge \neg p_2))] \vee \neg(p_3 \wedge \neg p_1).$$

Exercise 7: Ex. 7, page 38

Exercise 8: Ex. 10, page 39

Exercise 9: Ex. 2, page 43

Exercise 10: Ex. 3, page 44.

Deadline: Solutions should be delivered to the instructor (on paper or by email) by Wednesday, November 5.