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Complexity of Boolean functions
SS 2018
Homework 3
30.04.2018

Exercise 1:

Consider the situation described at Page 42 of the lecture notes. Prove the following assertion. If there exist p and q such that h_p and g_q depend on x_i then the network β contains a cycle.

Exercise 2:

Finish the proof of Subcase 3.2.

Exercise 3:

In the proof of Lemma 2.6, we have chosen $i, j \in S'$ such that a certain property is fulfilled (Page 49 of the lecture notes). Show that such a choice is possible.

Exercise 4:

Prove Lemma 2.9 of the lecture.