

Norbert Blum

## Complexity of Boolean functions

SS 2018

Homework 7

11.06.2018

### **Exercise 1:**

Consider the construction of the network  $\beta'$  from a monotone network  $\beta$  which computes the function  $f \in M_n$  as presented in the lecture. Show that  $\beta'$  computes the set  $\mathcal{A}(f)$ .

### **Exercise 2:**

Complete the proof of Theorem 4.1 of the lecture.

### **Exercise 3:**

Prove Lemma 4.1 of the lecture.

### **Exercise 4:**

Prove Claim 2 in the proof of Lemma 4.2 of the lecture.