

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.