

# Functional Programming

## Exercises Week 2

(for October 21, 2016)

1. Read Chapter 2 and Appendix B of the lecture notes.
2. Exercise 2.2
3. Exercise 2.3
4. Exercise 2.7
5. Exercise 2.11
6. Exercise 2.15. Solution:

```
let rec sub k xs = if k < 1 then [[]] else match xs with
  | [] -> [[]]
  | x::xs -> (Lst.map (fun ss -> x::ss) (sub (k-1) xs)) @ (sub k xs)

let sublists k xs = Lst.filter (fun l -> Lst.length l = k) (sub k xs)
```

7. Exercise 2.20