

# CS220 Programming Principles

## Homework No. 5

Due: May 29, 2017 9:00AM (20 points)

1. [3] a. Define a one-parameter procedure **prev** that returns as its value the argument that was passed to it the previous time it was called. The first time **prev** is called it should return the symbol **\*first-call\***.

```
(prev 'a)
first-call
(prev 3)
a
(prev (+ 1 5))
3
```

- [3] b. Define a procedure **make-prev** that can be used to create the procedure **prev** described in part a. **Make-prev** should take as an argument the value that should be returned by the first call to **prev**. That is, if we

```
(define prev (make-prev 'first-call ))
```

**prev** should behave as shown above.

2. [3] Exercise 3.3 on page 225 of the text book.
3. [3] Exercise 3.8 on page 236 of the text book.
4. [8] Exercise 3.10 on page 248 of the text book.