





Course Information and Overview

Software Installation

Section-Wide Items

Video Lectures

Homework 4

-  编程作业: Homework 4 (Auto-Grader)
3h
-  阅读材料: Homework 4 Detailed Guidelines for Peer Assessment
-  互评作业: Homework 4
45 min
-  审阅同学的作业: Homework 4

Community-Contributed Resources



General Instructions:

- Several problems required using particular other functions. In many cases, the auto-grader already checked for this, so you should not re-penalize for the same thing. In other cases, it was not feasible to check this automatically. The per-problem instructions will make clear what to look for and what has already been auto-graded.
- Mutation, such as **set!** or **set-mcar!** is generally poor style, except in problem 10, where it is essential to the solution. In other problems, give at most a 3 to solutions using mutation.

Problem 1:

Here is a sample solution:

```
1 (define (sequence low high stride)
2   (if (> low high)
3       null
4       (cons low (sequence (+ low stride) high stride)))))
```

On this and all problems, do not penalize using the longer form **(define sequence (lambda (low high stride) ...** instead of using the syntactic sugar for function definitions as in the sample above.

There is little need for a solution more complicated than the one above, but it is okay to give a 5 to a solution that uses a local helper function to avoid passing **high** and **stride** recursively. It is also okay to use **cond** instead of **if** although **if** is usually better style when there are only two cases.

Remember that you are grading on general style, not how close to the sample solution a student solution is. It is perfectly fine for a solution to be significantly different from the sample, as long as it has good style.

Problem 2

Here is a sample solution:

```
1 (define (string-append-map xs suffix)
2   (map (lambda (s) (string-append s suffix)) xs))
```

The auto-grader already penalized solutions that did not use **string-append** and **map** as helper functions, so we do not need peer assessment to judge this same issue.

There is little benefit to a longer solution here, so probably give at most a 4 to solutions that use some form of **let**-expression.

Remember that you are grading on general style, not how close to the sample solution a student solution is. It is perfectly fine for a solution to be significantly different from the sample, as long as it has good style.

Problem 3

Here is a sample solution:

```
1 (define (list-nth-mod xs n)
2   (cond [(< n 0) (error "list-nth-mod: n must be non-negative")]
3         [(null? xs) (error "list-nth-mod: list must be non-empty")]
4         [#t (let* ([len (length xs)]
5                   [posn (remainder n len)])
6               (car (list-tail xs posn)))]))
```