Section 5 Welcome Message

In case it has been a while since you completed the modules in Part A, remember we aim to provide various materials that will help you:

- Video lectures covering all the topics you need for the homework
- Reading notes that cover the same material in a written format
- Tips and extra practice problems contributed by others who have taken the course

As you start learning to program in Racket and use the DrRacket editor and programming environment, do take some time to try out some "basic" functional programming as we have previously done in ML. The first three homework problems are designed to help you with this. DrRacket is designed for teaching, so you should find installation and basic use very efficient. Also, you may be pleasantly surprised at how much you have already learned about using a new language to learn new things.

But this section does much more than reviewing functional programming in a new language. We will move on to study using advanced programming idioms related to using first-class functions to delay evaluation or avoid repeated computation. We encourage you to start early on the homework and to focus on carefully applying the concepts in the lectures -- this is the sort of material where "tinkering with the code until it seems to work" is likely to be a frustrating strategy.

The last topic in this section is *macros*, which are only on the homework as a challenge problem but you will need at least the basic idea of macros for the following homework. Racket has a very sophisticated and well-designed macro system, so it is a good context for this material.

A couple last notes on this section's homework:

1. The homework assignment suggests, and in some places requires, using Racket library functions that may not be used in the lecture materials. The free, online Racket documentation is good and fairly easy to search, and looking up functionality like this is an important software-development skill. Nonetheless, you can use the course discussion forum for this purpose instead: If you wish, feel free to post what library functions you used in what problem and how those library functions work (or links to the documentation about them). Just do not give away how you used the library functions to solve a homework problem. It is not a good use of your time to search for library functions well beyond what is suggested or required in the assignment -- we have done our best to point you toward what will be useful.
2. On a lighter note, you may be pleased to see that the homework assignment includes displaying pictures of two extremely cute dogs.