CSC104 tutorial exercises #9

This last tutorial is focused on understanding and writing recursive functions.

My office hour: Wednesdays 5:10–6, in SF1101 (our classroom).

Your tutorial: Wednesdays 6:10–7:00. Tutorial sections are as follows:

Surname	Tutorial section	Room	TA
A–C	section 1	BA3175	Omar
D–J	section 2	BA3185	Nahla
K–L	section 3	BA3195	Dhinakaran
M–T	section 4	BA2220	Nick
U–Z	section 5	BA2220	Yashuai

DCS Help Centre: Monday–Thursday, 4–6 pm in BA2230, see Help Centre page. Khaled, a TA from our course, is in the Centre Monday, Tuesday, and Thursday.

1. If you encounter an unfamiliar command (or one that used to be familiar, but no longer is), try
   (a) Type the command in DrRacket, hover your cursor on it, and then right-click, in order to see documentation, or
   (b) Ask another student, or a TA, how it works
2. Download (right click) the racket files `koch.rkt` and `spiral.rkt` from course calendar, November 21st. Read over the recursive functions `koch` and `koch-snowflake` and experiment with them in DrRacket's interaction pane until you understand them.
3. The definition of `spiral` is wrong. You should be able to fix it by **carefully** emulating the `check-expect` expressions I provided. Once you have spiral working, change the definition of `vertical-line` by replacing `"black"` with the `(make-color ...` expression on the next line. You will need to comment-out the `check-expect` expressions.
4. The definition of `make-palindrome` is broken. Fix it by **carefully** emulating the `check-expect` expressions I provided.
5. Try to emulate the random color technique from `spiral.rkt` in the definition of `koch`. As before, you'll need to disable `check-expect` expressions when you have random values.