**Scheme Assignemnt II**

Where art thou iteration Part II?

For this assignemnt you will be defining 2 functions, which work on sorted lists. You may not use iterative loops (only recursion!). Other than function arguments/parameters, you may not use variables. You can write additional helper functions if desired.

You may want to have “private” functions, where the private functions take in additional arguments and are called by the private function. However, the public functions must have the exact arguments as listed below.

**Function 1**

Write and test a function that gets a sublist from a list. It should return the list from (and including) a lower and to (but not including) an upper bound. Do not create a wrapper for a built-in function which does the same thing – write the code yourself.

**Function 2**

Write and test a function that performs a recursive binary search on a list. Return the index the number is located or -1 if the number is not found. You may assume the list is in sorted order.

Turn your code in on canvas once completed.

Sample runs:

(biSearch '(0 1 5 7 9 10 33) 39)

=> -1

(biSearch '(0 1 5 7 9 10 33) 1)

=> 1

(biSearch '(0 1 5 7 9 10 33) 7)

=> 3

(biSearch '(0 1 5 7 9 10 33) 8)

=> -1

(splitList '(0 1 5 7 9 10 33) 0 2)

=> (0 1)

(splitList '(0 1 5 7 9 10 33) 0 5)

=> (0 1 5 7 9)

(splitList '(0 1 5 7 9 10 33) 3 5)

=> (7 9)

(splitList '(0 1 5 7 9 10 33) 5 5)

=> ()

(splitList '(0 1 5 7 9 10 33) 4 5)

=> (9)