

CSCI 4391/5931  
Assignment 4

In this assignment you are to implement and test two Lisp functions. The first of which is a modification to a function that you have already seen:

Function 1:

Modify the drop-value function to be able to drop a value from any given list no matter how deep the value is in the list. You can call the function drop-all.

For example:

```
(drop-all 'a '(1 2 a b 3 a c d a 8)) should result in  
(1 2 b 3 c d 8)
```

```
(drop-all 'a '(1 2 (a b c (a d (f a))) x (a y) w a 3 5 a )) should result in  
(1 2 (b c (d (f))) x (y) w 3 5)
```

Function 2:

Implement a function that finds the numbers in a list no matter how deep they are in the list.

For example:

```
(find-nums '(a b 2 4 d 8 c 3 w w w 5)) should result in  
(2 4 8 3 5)
```

```
(find-nums '(1 2 (3 a b) (w 3 4 (7 9 d) b) 5 a b )) should result in  
(1 2 3 3 4 7 9 5)
```

Place both functions in one Lisp file (assignment4.lsp) and submit via Blackboard.

Good Luck