

Programming Exam Choice 2

Start by downloading the question 2 files from the moodle into a new directory on your machine. You will be changing the code in the question2.cpp file. You have a Makefile to handle building this code. You have access to my linked list solution code (as an .o file) so you can trust the functions in there.

Part 1. 5 points

You will complete this function to get the frequency of an element in a linked list.

```
unsigned int freq_iterative(const node*& head_ptr, const int& target)
{

}
```

The frequency of an element that is not in the list, of course, is 0. If the linked list at const_head_ptr1 contains 4 3's, this function will return 4 for a call like this:

```
freq_iterative(const_head_ptr1, 3);
```

Part 2. 5 points

After that, complete this function to do the same thing recursively. You are not required to use tail recursion, but of course you can if you want.

```
unsigned int freq_recursive(const node*& head_ptr, const int& target)
{

}
```

Your TA will grade anything you have ready before the deadline, but upload your code to the moodle anyway.

Logic of problem laid out in comments:	50%
Code compiles with no errors or warnings:	10%
Code has no run time errors:	10%
Code gives correct answers for all inputs:	20%
Code is clean and easy to read:	10%