

# CS201 Final

Create a subdirectory of your home directory named `Final`, and place your solutions there. Name your solutions `p1.c`, `p2.c`, and `p3.c`. All programs should read from `stdin` and write to `stdout`. Any debugging output should be written to `stderr`.

1. Write a C program that reads text from `stdin` and counts the number of space ( ' ') characters in the file. Do not count newlines or tabs. Print the count.
2. The C program `/u1/junk/cs201/Final/problem2.c` reads numbers from a file and creates a linked list, then prints the numbers. Copy my program and change it by adding a function that makes a second linked list which contains only (and all) the odd numbers from the first list, in the original order. The new list should be separate (i.e., use different nodes) from the old list. Your function should return a pointer to the head of the new list. Use my function to print the new list (from `main`).
3. Write a C program reads a list of first name - last name pairs and creates two binary search trees, one ordered by first name and one ordered by last name. The data file `/u1/junk/cs201/Final/data.3` is an example data file. Print both trees with inorder traversal functions.