COMPUTATIONAL PHYSICS LAB
PHZ 4151C/5156C

Homework 1
Due in class, Tuesday, January 22.

Chapter 3 *"Introduction to computer and software architecture"*: 3.5 Assignments

This assignment is similar to problem (1) in chapter 3 except that we are using the Linux environment with the gnu compilers. Using an editor create the source code file assemble.cc which contains the following lines of C++ source code.

```
#include <iostream>

using namespace std;

int main() {
        int i = 3;
        int j = 4;
        cout << i + j << endl;
}
```

Now compile this source code using the "*-S*" *g++* option for generating assembly code. The command is "*g++ -S assemble.cc*". This will generate code entitled *assemble.s*. This new file contains the assembly language version of the program. Open the file with an editor (or page through the file with *more* or *less*, see "*man more*" or "*man less*" for help). Identify the assembly lines which correspond to initializations of the two integer variables, *i & j*, and the line(s) which corresponds to the addition of *i + j*.

Chapter 4 *"Fundamental Concepts"*: 4.12 Assignments

Do problems 1 - 20