Start a new document in Word or a similar program. Include the names of both members of your team and any additional information or code as instructed below. At the end of the lab, please email your lab report to cs10labtues@gmail.com or cs10labthurs@gmail.com as appropriate with the subject line "CS10 Lab1 lastname lastname", with the last names of both members of your group.

STEP 1: Install a development environment

Linnell or Bannister:

Windows or Linux:

1. Download and install the Code::Blocks Development Environment at http://www.codeblocks.org/downloads/binaries

   For Windows, you will choose the 3rd option under Windows (codeblocks-12.11mingw-setup.exe).

   You should be installing with default settings, but be sure choose the setting to install the GCC compiler!

2. Open the program. You may be shown a popup saying that some compilers have not installed; this is fine as long as the GNU GCC Compiler is detected. Go to File->New ->Project. Choose Console Application. Choose C++. Now you will be asked to name your project, and choose a folder to put it in. You will probably want to create a folder either in your Documents folder or on your desktop for all your Code::Blocks projects. You'll click through the next several screens using default settings and when you finish your project should open. In the left hand side area you will see your project name. Click on it, and a folder called Sources should appear; if you click on that you will see main.cpp. Click on main.cpp and some code will appear in the main window. Click on the green arrow near the top of the screen, and a black box should appear with "Hello World" in it. Take a screenshot of this screen include it in your lab report.

For xcode on Mac

1. Get xcode from the app store, and install it.
2. Go to file->new->project. A pop-up will appear. On the left hand side, under "OSX" choose "Application". Then choose "Command Line Tool." Then there will be a screen where you name your project - toward the bottom under "Type" you should choose C++.
3. Unfortunately, the default program that XCode gives you is a little different from the one code::blocks gives you. You'll need to add the

   ```
   using namespace std;
   ```

   statement. Also, the line that begins "`int main...`" is a little different - don't worry about that, it works the same.

3. Run the program; "Hello World" should appear in the box on the bottom of the screen. Take a screenshot of this screen include it in your lab report.

Manna:

1. Go to: https://www.qt.io/download-open-source/ and download the installer for your operating system. The webpage should automatically detect which operating system you have.

Microsoft Windows

- Download Qt (**Open-source** version) and run the Online Installer for Windows
  - Install in C:\Qt
  - Select components: under Qt 5.7, uncheck all **except** MinWG 5.3.0 (32 bit)

Apple MacOS

Do the following **in order**:

- Download the free app Xcode from the App Store. After downloading it, run Xcode once to accept the license agreement.
- Download Qt (**Open-source** version) and run the Online Installer for Mac
  - Use default installation folder (your home directory)
  - Select components: under Qt 5.7, uncheck all **except** OS X

2. Once Qt is installed, run it and Click File->New File or Project. Under "Project" choose "Application", then in the middle section choose "Qt Console Application" and click "choose."

3. Give your project a name and location. I suggest creating a new folder where you will keep your code for labs. Click through the rest of the options.

STEP 2: Variables and Computations in C++

1) On paper, work out how to find the area of a square given its side length. Do your best to produce something in the style that is presented as "pseudocode" in the beginning of class. Be sure to declare variables as appropriate. **Be sure to get your lab checklist initialed.**
4. In your Interactive Development Environment, or IDE (Code::Blocks or xcode), translate your pseudocode into C++. Run your code to see the result. **Copy your code into your lab report**. **Be sure to get your lab checklist initialed.**

STEP 3: Survey and experience questionnaire.

----------MINIMUM STOPPING POINT----------

STEP 4: Sign up for myprogramminglab: http://math.scu.edu/~linnell/cs10f16/mplInstructions.pdf