

Cpp file and Variables

<https://www.cplusplus.com/files/tutorial.pdf> Pages (11-28)

//This is what a new file should look like

```
#include <stdio.h>
#include <string>
#include <iostream>

using namespace std;

int main()
{
    //code goes here
    return 1;
}
```

Variables need to be Declared and Defined

Declaring looks like this: `int testName;`

The first word is the type of variable, this example is an int.

The second word is the name of the variable, this example int is called "testName".

Defining looks like this: `testName = 10;`

The first word is the name of the variable we are referring to (`testName` in this case).

The right side of the equal sign is the new thing to put in `testName`;

The right side can be anything that matches the variable type, even other variables or equations. For example:

```
testName = testName * 10;
```

or:

```
testName = test1 + test2;
```

The second example would only work if `testName`, `test1`, and `test2` are all the same (int, or string, or whatever).

If you declare a variable without defining it, the code will probably still work, but if you don't declare the variable your compiler will not know what the variable means.

You can combine the declaration with definition like this:

```
string testName = "testName will say this";
```

The declaration is on the left, and then you add the equal sign to define it.

Variable symbols:

+, -, *, /, %

Addition, Subtraction, Multiplication, Division, Modulo(Remainder)