

## Preparation for computing

For example we are working on a **Windows** computer:

- **Set up your account for this course**

1. Login to your AFS account using ssh to one unix computer (see course webpage for a list of available unix computers on campus). If you do not have “ssh software”, please download and install **F-secure SSH** software from the OIT website (see course webpage).

For example, we connect to the unix machine **darrow.helios.nd.edu**

2. type the command and then hit the return key:  
**/afs/nd.edu/course/sp.09/math/math20210.01/bin/20210setup**  
You could also copy this from the course webpage (in “help information on using a PC”) and paste it.
3. If all goes well, logoff and then login again.
4. Now type  
**20210OK**  
(you should get a message that all is well)

- **Write a C++ code.**

1. For example, we can use **Notepad** in Windows of your own computer to write codes and save it as a text file. (**NEVER USE Microsoft Words to write your codes!! Because the codes file need to be a TEXT file!**)
2. Computer files usually have two parts: the file name and the extension. You will be told the file name as part of the homework assignment. The extension for a C++ file is always **.cpp**

For example, the first homework (it is called “assignment 0”) file name is **ex0-1.cpp**

- **Upload your code file to your correct homework directory in your AFS account (using “F-secure SSH file transfer” connect to darrow.helios.nd.edu or some other machines)**

For the first homework (assignment 0), the files should be in the directory **math20210hw/hw0**

- **Compile your code and run it on the Unix machines.**

1. login into a unix machine from your windows computer using SSH software. For example: login to **darrow.helios.nd.edu**
2. useful unix commands:  
**ls** (list all files in the current directory)  
  
**cd math20210hw** (change the current directory to your homework directory)  
  
**cd hw0** (change to the assignment 0 directory)  
  
**ls**  
you should see the code file ex0-1.cpp, otherwise something is wrong!
3. **dos2unix ex0-1.cpp** (change the windows file format to unix format)
4. **g++ ex0-1.cpp** (compile this C++ code and if the code has no syntax error, this command will generate an executable program automatically named a.out)
5. **a.out** (execute the program itself and get the results)

- **Submit your homework**

1. **20210submit** (submit your homework. you can re-submit a homework using this command. Only works after the homework is assigned and before the due date. Note: you should be in the directory that contains the files to submit.)
2. **20210submitted** (check whether a homework is correctly submitted.)
3. **20210run** (compile all your submitted homeworks for your grader. An error message is generated if there is an error; in this case, you should correct the errors and re-submit and re-compile the code.)