Lab 1

Deadline: March 16th at 3:00 p.m.

A. Create a public repository lab1 through GitHub webpage. In your Cygwin, configure your git environment by using **git config**, and then execute the following commands:

$ **script lab1.script**

$ **whoami; pwd**

$ **git config -l**

$ **git clone https://github.com/<your github account>/lab1.git**

Then press Ctrl-D. At this time, a file "lab1.script" is created. You can use the cat command to show the contents of the file:

$ **cat lab1.script**

Move the file into lab1 directory:

$ **mv lab1.script lab1**

Add lab1.script into your repository (by using git add). Commit (by using git commit) and push to GitHub (by using git remote add and then git push).

B. Consider the following algorithm:

1. input n
2. print n
3. if $n = 1$ then STOP
4. if n is odd then $n \leftarrow 3n + 1$
5. else $n \leftarrow n/2$
6. GOTO 2

Given the input 22, the following sequence of numbers will be printed:

22 11 34 17 52 26 13 40 20 10 5 16 8 4 2 1

Write a C++ program to read in an integer and print out the corresponding sequence of numbers. You do not need to worry about the overflow problem.

Hand-in Rules

Your GitHub account shall have a public repository lab1, which includes the following things:

1. The file *lab1.script* you obtained in question A.
2. A *.cpp* and a *.h* (if any) file(s) for question B.
3. A *README* file showing how to compile your program for question B.

4. A running script file showing how to run your program for question B. (Use the script command to create it.)