1. SSH keys
   if you have not already done so, set ssh keys to allow you to ago from one cs machine
   to another without entering passwords

   ssh-keygen -t rsa
   do not give a pass phrase
   put keys into default location
   cd ~/.ssh
   cp id_rsa.pub authorized_keys

2. Write a shell script that prints numbers from 1 to 20. Write this script twice, one using while
   and once using for. Read about each on the web (or ch 29 of Shotts)

3. Modify the script in 2 to count from one number to another as supplied on the command
   line. You may assume that the user provides 2 integers on the command line but cannot
   assume that the numbers are in any particular order.

4. Write a version of wc using a shell script. It should count lines and words but not characters
   (see /home/gtowell/Public246/Lab1125/reader.sh for reading files)

5. modify the dirsum.sh script to recursively work on directories. That is, it should calculate the
   number of bytes used by files in this directory, and all directories below this. Add comments to
   your script to explain everything
   (/home/gtowell/Public246/Lab1125/dirsum.sh)

6. Modify png.sh to use uptime rather than who. Further modify output to print immediately
   understandable load statistics (you will need to figure out what load stats uptime provides)
   (/home/gtowell/Public246//Lab1125/png.sh)

7. The cal function in unix will print out a calander of any month / year

   for instance: cal 11 2020
   November 2020
   Su Mo Tu We Th Fr Sa
   1  2  3  4  5  6  7
   8  9 10 11 12 13 14
   15 16 17 18 19 20 21
   22 23 24 25 26 27 28
   29 30

   Write a shell script that transposes cal. It would print
   November 2020
   Su 1 8 15 22 29
   Mo 2 9 16 23 30
   Tu 3 10 17 24
   We 4 11 18 25
   Th 5 12 19 26
   Fr 6 13 20 27
   Sa 7 14 21 28
for doing so it will be very useful to know that you can create and add items to an array in
shell scripts using

```bash
ARRAY=()
ARRAY+=('foo')
```

8. Modify your cal transposer to print of the date of the fourth thursday in any month. Have a good Thanksgiving.