Exam 1

1) Determine what each of the following Python expressions will return. In other words, if these expressions were entered into the Python terminal, what would they return? (5 points each)

   a.

```
5/2
```

cthe return is 2

    b.

```
5./2.
```

the return is 2.5

    c.

```
5%3
```

the return is 2

    d.

```
not(5>6) and (True or False)
```

the return is True

    e.

```
(5==4) or (not True)
```

the return is False

2) Write the output of the following programs. (8 points each)

a.

```
for i in range(3):
        print i*i
print "hi"
```

the return is

0

1

4

hi

b.

```
s=0
for x in [5,3,1]:
        s=s+x
print s
```

the return is

0

1

4

hi

c.

```
x=16
while x  > 5:
        x=x/2
print x
```

d.

```
a=7
if a%2==1:
        print "yoda"
else:
        print "do yoga"
```

the return is

yoda

3) The following questions are about Git. (10 points each)

a. Explain how to create a new git repository. Include all terminal commands and things you must do on github. Assume your github user name is "Charlie" and your project is in a folder named "Project" in your Documents folder. Name the repository "ProjRepo".

1) Create ProjRepo on github.com

2) Create a folder named "project" in Documents

3) Place all files in to "project" folder

4) In terminal

cd Documents/project

git init

git add .

git commit -m "the first fill"

remote add origin https://github.com/Charline/ProjRepo.git

git push origin master

b. Explain how to clone a repository name "Awesome" from github user named "Barry22". Clone the repository into your Documents folder.

In terminal

1) cd Documents

2) git clone https://github.com/Barry22/Awesome.git

4) Write a program that constructs an array filled with all of the prime numbers between 2 and 100. (20 points)

```
a=[]

for i in range(2,100):

    prime=True

    for x in range(2,i):

        if i%x==0:

            prime=False

    if prime:

        a=a+[i]
```