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
```

returns 2

b.

```
5./2.
```

returns 2.5

c.

```
5%3
```

returns 2

d.

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

True

e.

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

False

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

a.

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

   0

   1

   4

   hi

b.

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

   9

c.

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

4

d.

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

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".

```
git cd/Documents/Project
```

```
git init
```

```
git add .
```

```
git commit -m "add repository"
```

```
git remote add origin https://github.com/Charlie/ProjRepo.git
```

```
git push origin -v master
```

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

```
git clone https://github.com/Awesome/Barry22.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]

            break

print a
```