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
>>> 2
```

b.

```
5./2.
>>> 2.5
```

c.

```
5%3
>>> 2
```

d.

```
not(5>6) and (True or False)
>>> True and 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):            >>> 0,1,4
      print i*i               >>> hi
print "hi"
```

b.

```
s=0
for x in [5,3,1]:             >>> 5,8,9
      s=s+x
print s
```

c.

```
x=16
while x  > 5:                 >>> 4
      x=x/2
print x
```

d.

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

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".

```
>>>cd documents/Project
>>>git init
>>>git add .
>>>git commit -m"name"
>>>git remote add origin https://github.com/name/projectrepo 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.

```
>>> cd documents/Project
>>> git clone http://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[2,101]:
    prime=true
    for x in range(2,i):
        if i%x==0
        prime=False
if prime
a=a+[i]
print a
```