

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

```
>>>2
```

b.

5./2.

```
>>>2.5
```

c.

5%3

```
>>>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"
```

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 config --global user.name "Charlie"
$ git config --user.email charlie@ef.com
$ cd Documents/Project
$ ls
$ git init
$ git add .
$ git commit -m ""
$ git remote add origin https://github.com/Charlie/ProjRepo.git
$ git remote -v
$ 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
$ git clone https://github.com/Barry22/Awesome
```

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