

**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"
```

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".

```
cd Documents/project git init git add . git commit -m"project" git remote add "https://gitub.com/charlie/project.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 dauments git clone https://www.gitub.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 prime=false if prime: a=a+[i]
```