

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".

Go online and create a new repository named "ProjectRepo"

Once created open your terminal and type: `cd documents/Project` then enter: `git init` then: `git add .` then: `git command -m "first commit"` then: `git add origin https://github.com/Charlie/ProjectRepo.git` finally: `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/ProjectRepo
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)

```
for num in range(1,201):
    if all(num%(percent sign)i!=0 for i in range(2,num)):
        print num
```