

CS 151 - Homework 3

1 count.py

If you run this program without modifying it, you will see the numbers 1 to 9 printed out one per line. Modify the program so it prints the first 5 multiples of 3(3,6,9,12,15). You will need to understand what the range function does.

2 operators.py

This program accepts 3 integers one line at a time. To input numbers to the program type an integer and press enter. If you run this program without making any changes nothing will be printed out. For each print statement print the actual value for example print True and not 'True' or "True" This program is expecting to read from standard input (stdin).

You can pass a file in for easier testing by passing a file in with the < operator:

```
python3 operators.py ~/jkinne/public_html/cs151-f2019/hw/operators.in
```

You can compare this to the expected output

```
cat ~/jkinne/public_html/cs151-f2019/hw/operators.out
```

3 strings.py

Input works the same as operators.py, except it expects 3 strings.

Sample input:

```
hello
world
!
```

Expected output:

```
helloworld!
5 5 1
hellohellohellohellohello
```

4 squares.py

This program should accept an integer from the user (n). Print the first n perfect squares.

For example if n = 4, the output should be:

```
1
4
9
16
```

If you have trouble look at count.py and see how numbers in a sequence are printed.

5 factor.py

There is a mistake in the sample code. Replace the two print statements with the following.

```
print(a, 'is a factor of', b)
print(a, 'is not factor of', b)
```

Also ensure the program contains quotes around `__main__`

```
if __name__ == '__main__':
```

Complete the function `factor(a,b)` If `b` divided by `a` does not have a remainder you should return 0.

Sample input:

```
6
3
```

Expected output:

```
6 is not a factor of 3
```

6 scores.py

This program will accept numbers (integers or floats) from the user until -1 is entered.

Sample input:

```
100
82
54
76
44
90
67
-1
```

Sample output:

```
100.0 A
82.0 B
54.0 F
76.0 C
44.0 F
90.0 A
67.0 D
```