

Lab 4: Python Programming Basics III

Exercise 1

Read streams of (x, y) pairs from the command line. Modify the `datatrans1.py` script such that it reads a stream of (x, y) pairs from the command line and writes the modified pairs(x, f(x)) to a file. The usage of the new script should look like:

```
Python datatrans1b.py tmp.out 1.1 3 2.6 8.3 7 -0.1675
```

The output file, `tmp.out`, should look like:

```
1.1    1.20983e+01
2.6    9.78918e+00
7       0.00000e+00
```

Hint: Run through the `sys.argv` array in a *for* loop and use the *range* function with appropriate start index and increment.

Exercise 2

Write a function *myjoin* that concatenates a list of strings to a single string (not a list), with a specified delimiter between the list elements. The delimiter should be contained in the first string of your input list. That is, *myjoin* is supposed to be an implementation of *string* object's *join* function (or *string.join*) in terms of basic string operations. For example:

```
list = [',', '1', '2', '3']
ex = myjoin(list)
ex = '1, 2, 3'
```