

Unix Lab 3 Bash and AWK (2023)

1. Write a Bash shell script which given a set of numbers on the command line, will print them out sorted. **Do not use the already existing sort command.**

Here is a sample of how the program should work:

```
./mysort.sh 2 3 1 19 14 13 11 5 6 3 3  
1 2 3 3 3 5 6 11 13 14 19
```

2. Write a shell script which imitates the wc command without using the wc command. The program should handle the flags -l, -w, and -c. If an invalid flag is given, the program should print "error." If no flag is given, print all three details. Furthermore, the command should accept several file names, in which case it will simply run on each file one after the other printing the required details for each file.

3. Create a file containing rows of comma delimited information where each row contains a grade, a course number, and a student number in that order. Write a program (Bash or AWK or a combination) or a single command line operation which will print out the average grade for each course excluding all grades lower than 30. Do not assume the rows are in any order. They are shuffled randomly.

4. Write an AWK script that reads a file and extracts any numbers in the file and checks if they are prime numbers.

The script should then print all prime numbers that it found.

Example file:

```
Math is179day foun193dary  
18  
nachum17  
19
```

should print

```
179  
193  
17  
19
```

To solve this you should either use the awk function **gsub** or combine your **awk with sed**.