

ANKARA UNIVERSITY
COM101B
Fall 2017-18 Term
LAB3 Quiz

Date: 20/10/2017 **Group** 1

Duration: 60 minutes

Write a C program which reads a set of numbers, until the EOF, from standard input (stdin) and prints the number of items read from the stdin and the sum of the squares of the prime numbers in the given set. If there is no prime number in this set, you should print 0.

I/O format:

input: <set of integers>

output: <sum of the squares of the prime numbers><SPACE><# of items read>

Example:

Sample Input: 2 4 3 10 8 11 9 13 19

Your program prints 9, since there are 9 items read from the stdin, as the second item and must calculate and print the sum of the squares of the prime numbers: {2, 3, 11, 13, 19}

$$2*2+3*3+11*11+13*13+19*19 = 664$$

Output: 664 9

Hint: Remember that **EOF** is a predefined macro which stands for End Of File. You can capture EOF using scanf function as follows:

```
int x;
while(scanf("%d",&x) != EOF)
{    <do something>    }
```

Suggestion:

Prepare sample input files, i.e. **input.txt**, to test your program. Assume that your executable is **lab3**.

Test your programs like this:

>./lab3<input.txt

Submission: Your source code will be named using your student ID: <student-id>.c

Ex: if your id is 1123456 than you should name your source code like this: 1123456.c

Please test your program thoroughly before submission.

Good luck ☺