

## CSE102 – Computer Programming Homework #2

**Due Date:** 21/03/2022

Hand in: Files named main.c, utils.c, utils.h, and makefile for this homework and compress it into a .zip file.

You can email [cemayar@gtu.edu.tr](mailto:cemayar@gtu.edu.tr) if you have any questions.

**Homework Description:** Consider the riddle given by Rosenthal,

[Can you solve the rogue submarine riddle? - Alex Rosenthal](#)



Find a solution to this problem (you can look it up on the internet) and program the solution in C (you should do this part by yourselves).

Given the number to minion B as input, write a program to calculate minion A's number along with the set of numbers forming  $A = x_1 + \dots$  and  $B = A = x_1 * \dots$

Your answer (format) should be something like:

```
$ ./test
```

```
Enter B's number: 10
```

```
A is 2 + 5
```

```
B is 2 * 5
```

## **General Rules:**

Obey the style guidelines.

Do not change the provided function prototypes (you will not get any credits).

The program must be developed on Ubuntu using GCC compiler (version provided in class), compilation problems due to the use of another OS or compiler is your responsibility (you will not get any credits).

Your program should work as expected. Do not expect partial credit if your code works only in some cases but not in all cases as expected.

You can ask your questions about the homework by posting on the forum in Teams.  
Handing in your work:

Hand in your work using the appropriate class Teams assignment site.

No late submissions will be accepted.

Pack this directory into a zip file named 20180000001\_X\_Z.zip

When unpacked as above in Ubuntu (version provided in class) it should allow executing the following commands in a shell:

- “\$make clean” removes everything except makefile, source code (.c and .h) and other resource files (if any) – all compiling results and intermediate files should be removed.
- “\$make compile” should compile the code.
- “\$make run” should run the code along with any parameters needed.