

Homework #6

Due date: 21:30, November 17th, Tuesday, 2015

Problem statement

Compute add, subtraction and multiply operations on large numbers.

Requirements

1. Write a C program that is capable of handling input.
2. See the sample run below for the required output format, **your output must be in the exactly same format with the sample.**
3. Given 2 integer numbers a and b while $0 \leq b \leq a \leq 10^{100}$.
4. Calculate a+b(40 points), a-b(40 points) and a*b(20 points).
5. Execution time limit: 1 second.

Submission

Be sure to upload your source code to E3 by the due date and name your file as “**HW6_XXXXXXX.c**”, where **XXXXXXX** is your student ID.

Sample run

```
Input a:987654321098765432109876543210
Input b:123456789012345678901234567890
a+b=1111111111011111111101111111100
a-b=864197532086419753208641975320
a*b=121932631137021795226185032733622923332237463801111263526900
```

Hint

You may store inputs as strings and do the calculations in the same way you do it on paper (直式算法).

In the case of a*b, you can NOT just do a+a for b times, it will take more then 1 second.