Introduction to Computers and Programming

Homework 4

2023/10/03

1. Deadline

There is a week for you to complete the homework. Hand in your homework via E3 before 2023/10/10 23:55. Please finish your homework as soon as possible. In addition, make sure that your code can be executed on Visual Studio Community 2019.

2. Problems

2.1 Big Number Addition

Description

First, input two big number A and B, each of them may be out of the range of long long int. Then, add A and B. Finally, output the sum of A and B.

Hint

Using string to store two big numbers, and convert them to int with ASCII code.

Input
Two big numbers A and B (each one will be under 20 digits or exactly 20 digits).

Output
Addition of two big numbers.

Example 1:

Input
12345678912345678912

12345678912345678912

Output
24691357824691357824

Input
12345678912345678912

98765432198765432198

Output
11111111111111111110

2.2 Big Number Multiplication

Description

First, input two big number A and B, each of them may be out of the range of long long int. Then, multiply A and B. Finally, output the sum of A and B.

Hint

Multiplication of A and B won't be greater than 41 digits.

Input
Two big numbers A and B (each one will be under 20 digits or exactly 20 digits).

Output
Multiplication of two big numbers.

Example 1:

Input
12345678912345678912

12345678912345678912

Output
152415787806736785452522501398201503744

3. Submission format

Your submission should follow the format below, or you might get some penalty for the wrong format.

yourStudentID_hw_w04.zip
├── /yourStudentID_hw_01.cpp
└── /yourStudentID_hw_02.cpp

4. FAQ

1. There is no negative number.

2. Leading zeros should be removed.