DS & OOP HW1
Big Number

Problem Description

Given integers x, y, i, j, and operators “+-*/”, print from i-th to j-th digits of x “operator” y.

Input and Output Format

- Input Format
  - **Use command line to read the input file xxx.txt (argv[1])**
  - Input file is .txt files
  - There will be more than one testing data in a file (No more than 20)
  - 0 < x < 10^20000 and 0 < y < 10^20000
  - In each input file
    - First line: number of testing data
    - second line to (n+1) line ,
      each line contain: x operator y i j
      - ➢ do the operation “x operator y”
      - ➢ with “space” to separate each of them

- Output Format
  - Standard output the answer for each data with newline(‘\n’)
  - If the answer is positive, output digits from i-th to j-th(index is from 0)
    - eg. answer is 854789521 with i = 3, j = 6

      876543210

      ^ ^

      output 4789

- If the answer is negative, first output a sign “-”, then output the same as positive
  - eg. answer is -854975899 with i = 3, j = 6

    876543210

      ^ ^

    output -4975

Sample Input and Output

test1.txt	3 1 - 12345679 3 7 11111111 * 11111111 0 10 25 / 3 0 0
command	**./a.out test1.txt**
output	-12345 56787654321 8

*input file and output file end with a newline(‘\n’)

Requirement

- **Cannot use any Big Number library**
- Please use C++ to do this homework (we’ll use g++ to compile)
- Cannot use C++11
- You can use any platform to write the homework like codeblocks, dev, …etc, but **TAs will use linux workstation provided by the CS Computer Center to grade your code**, so please make sure that your code can work on workstation.
- Time limits: 5 minutes

Deadline And Submit

- **Deadline : 03/26 23:59**

- Each student must work individually and submit a **.zip file** to e3(.rar .7z or others is forbidden), named by **<Your_Student_ID>.zip** containing:
    - source code named by **<Your_Student_ID>.cpp**
    - If you have header file, please put with your cpp file

Grading

- Correctness 100%
- Penalty
    - **Delay -- 0 point**
    - Use big number library -- 0 point
    - Copy or piracy -- 0 point
    - Can't work on workstation
    - Wrong file name or compressing format
    - Wrong output format
    - Not use command line

Reference of argc and argv

http://crasseux.com/books/ctutorial/argc-and-argv.html