



STACKs Assignment

Assignment Objective:

Using stacks to add/subtract large real numbers.

Input & Output:

In all the following, a3.exe is assumed to be the name of your executable file.

- Example input/output line for addition:
a3.exe 155570912.00037+2222096.5643
Result= 157793008.56467
- Example input/output line for subtraction:
a3.exe 155570912.00037–2222096.5643
Result=153348815.43607

For subtraction assume the first operand (number) is always greater than or equal to the second operand (number) (i.e. the result is always possible)

ERROR Handling

You should check for the correctness of the input. The only allowed inputs are two numbers (with or without a decimal point '.'), an addition operator '+' or a subtraction operator '–'.

The program should output an "Invalid input" error message for any wrong input. Wrong inputs may include:

- Two decimal points per number (e.g. 1203.564.795)
- Non number characters (e.g. 12v75.97 or 19@643)
- Any other operators (other than the addition/subtraction operator) (e.g. %,/, etc.)
- More than one operator (e.g 123+–321)

Example Test Cases:

- a3.exe 155512.0+2222096
Result=2377608.0
- a3.exe 1&5512.3+22220.87.21
"Invalid Input"
- a3.exe 155570912.00037-2222096.5643
Result=153348815.43607
- a3.exe 15512.3700+22226.5643
Result= 37738.9343

- a3.exe 155570912.00037–2222096.5643
Result=153348815.43607

Submission Guidelines:

- Late submission is not allowed
- You can discuss and exchange ideas, but not code.
- Copying is not allowed, and any kind of cheating will get zero.