Big Int
Addition (40pts) Multiplication (50 pts)

Important Notes

- Electronic submission is due on Monday, Oct 27, 2014 11:59pm.
  Hard copy is due on Tuesday, Oct 28, 2014, in class.
- Submission command: submit -c 246 -p **5** -d YourDirectory
- **This assignment is to be done on your own.** If you need help, see the instructor or TA.
- Please start the assignment as soon as possible and get your questions answered early.
- Read through this specification completely before you start.
- Some aspects of this specification are subject to change, in response to issues detected by students or the course staff.

In this program you will simulate very large integers with strings and calculate the addition and multiplication given two strings. You should have at least the following functions, but probably more:

- A function that takes two strings representing two two big integers for addition. That is, the parameters for two big integers are of the form `char *x, char *y`.
- A function that takes two strings representing two two big integers for multiplication. The parameters for two big integers are same as the previous function.
- A function that prints out a big integer represented by a string.

Provide a prototype for each function. You may have more parameters than specified above. Use conditional compilation (e.g., $\#if$ and $\#endif$ directives) for the following test cases. For each test case, print out the results of addition and multiplication of the two integers:

1. 99 and 98
2. 123456789 and 9
3. 123456789 and 123456789

Make sure to use (i) pointer notation to address the characters whenever possible, and (ii) the existing #define for all size related operations.

Along with your well-commented source code, include a README file specifying how to compile and run your program and how your program is expected to run. If your program behaves in anyway differently from specified, or there are bugs you'd like to point my attention to, this is the place for it.