For project 1, you are to implement two classes specified in the exercises from your textbook. For the purposes of testing, I will give you a specification for the names for the classes and functions you are to implement.

The first class is the statistician class detailed in programming projects #2 on page 90 of the text. Make sure to **read the note at the end of #2** about not needing to store the sequences of numbers. The specification for this class is as follows:

- Name the class "**statistician**" with all lowercase letters.
- The function "**next_number**" should add a number to the sequence.
- The function "**length**" should return the number of values in the sequence.
- The function "**last**" should return the last number added to the sequence.
- The function "**sum**" should return the sum of the numbers in the sequence.
- The function "**mean**" should return the mean of the numbers in the sequence.
- The function "**smallest**" should return the smallest number in the sequence.
- The function "**largest**" should return the largest number in the sequence.
- The function "**erase**" should erase the sequence.

The second class is the pseudorandom number generator class detailed in programming project #11. The specification for this class is as follows:

- Name the class "**RandGen**".
- The order of the parameters for the constructor of RandGen should be: **seed, multiplier, increment, and then modulus.**
- Name the function to generate the next number "**next**".
- Name the function to change the value of the seed "**setSeed**".

The code for each of these classes should be divided across two files:

1. A .h file for the interface/class definition.
2. And a .cpp file for the implementation of the class' functions.

In total, you should be submitting four files: **statistician.h, statistician.cpp, random.h, and random.cpp**. Further, you should upload these as **separate files** rather than zipping or tarring them together. You **should not** include a main() function in any of these files, but you should write one in a separate .cpp file in order to test the functionality of your classes before submitting your code. You should not include the files with your main() function(s) in your submission.